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AN EXPERIMENTAL STUDY OF
THE EFFECTS OF PRESTIGE AND DELIVERY SKILL
IN EDUCATIONAL TELEVISION

by
Thomas Dibble Skinner

A dissertation submitted in partial fulfillment
of the requirements for the degree of
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This dissertation is dedicated to my wife, Beth, for her patience, faith, and encouragement.

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CHAPTER I

INTRODUCTION

Background of the Study

The majority of the experimental research in educational television may be summarized as revealing that there is no significant difference between the amount learned by students via television and the amount learned using more conventional teaching methods. Because of the conclusions derived from this mass of data it would seem that the next research step should involve research specifically designed to discover how television, as an educational medium, can be used most effectively. This study will investigate the validity of a current policy to secure performers for educational television programs.

Educational television is not limited to classroom or curricular education; it includes the at-home viewing of general information and cultural programs. We can refer to these programs as "educational" as contrasted with "instructional."¹

¹The basic difference being that "instructional" television is a specific type of "Educational Television." "Itv" implies a course for credit or enrichment as a part of a curriculum, while "etv" implies the informal acquisition of knowledge. "An Age of Kings" (a series of Shakespearean plays) would certainly fall into the "etv" category.

Either of these two types of programs can originate from an educational or a commercial television station. The National Broadcasting Company broadcasts both "Continental Classroom," an "instructional" series, and "David Brinkley's Journal," an "educational" series of programs. The Columbia Broadcasting System produces both "College of the Air" ("ITV") and "CBS Reports" ("ETV"). The National Educational Television and Radio Center, a non-commercial program exchange and distribution center, functioning as a video tape and film network, produces numerous "educational" and some "instructional" programs.¹

A recent pamphlet from the National Educational Television and Radio Center explains the broad concept of Educational Television:

ETV has many forms of expression. It is formal instruction for children in school and adults at home. It is informal programming in the arts, sciences, humanities, and public affairs via ETV broadcast stations throughout the country. It is closed circuit (wired) TV bringing instructional material to classrooms in a school or on a college campus, or lessons to school children throughout an entire state. It is formal instruction beamed from a flying TV station to classrooms in a six-state area. ETV is a televised lecture in physics, Dave Brubeck playing modern jazz, an Elizabethan comedy, an expert explaining the stock market, Robert Frost on life and literature.²

gory while "College of the Air" (a program offering college courses for credit) would be classified as "itv."

¹ Since NETRC has no studios of its own, it contracts with many producing agencies (both commercial and non-commercial) to provide educational programs for America's non-commercial, educational television and radio stations.

² Current Developments in Educational Television (New York: National Educational Television and Radio Center, 1963), p. 2.

The specific concern of this study is "informal programming in the arts, sciences, humanities, and public affairs." Of prime importance in the difference between instructional and educational programs is the kind and degree of viewer motivation to tune in and watch the program. Instructional programs are intended for use in the classroom or in the home, but in either case they are a part of an academic curriculum, and students who view them do so with strong motivation. The student's examination and course grades, and eventually his graduation, can depend on what he learns from the instructional program. Although other motivation, such as social pressure or self-improvement, may exist for the viewer of the educational program, he does not have the pressures of the formal student. The viewer of a general information or cultural program does not lack motivation, but his motivation is self-determined and controlled; it is not the motivation of a student working for specific and tangible rewards.

In a report on the composition of the audience for Educational Television, Crary generalizes about the character and motivation of the audience:

The ETV viewer is simply the ordinary television viewer who occasionally, and not too often, turns to educational television for reasons of his own. Studies by Withy and by Geiger and Sokol show that these reasons are definitely articulated as "educational."¹

¹ Ryland W. Crary (ed.), The Audience for Educational Television: Including a Summary Statement and Exerpts from Six Research Studies (Ann Arbor, Mich.: Educational Television and Radio Center, 1957), pp. 75-85. ETRC and NETRC are different names of one organization. In January, 1959,

In four American cities Schramm asked Educational Television viewers, in the course of a home interview, the straight-forward question, "What would you say are the main reasons why you watch station _____ when you do so?"¹ Thirty-three per cent of the viewers answered, "because of its educational value." Schramm notes that since only a minority followed formal courses; it seemed unlikely that these persons were referring to the formal educational function of Educational Television.²

Statement of the Problem

The policy in question

As the primary national distributor of educational television programs the National Educational Television and Radio Center has always followed a policy of providing programs of "educational value." Edwin Cohen, then program associate with the Center, wrote in 1958, "While programs must be of sufficient interest to catch and hold an audience their basic raison d'etre must be to educate."³ It

by decision of the board of directors, the official name of the organization was changed to the National Educational Television and Radio Center.

¹Wilbur Schramm and Jack Lyle, The People Look at Educational Television: A Report on and from Audiences of Eight Representative ETV Stations (Palo Alto, Calif.: Stanford University Institute for Communications Research, 1962), p. 105.

²Ibid.

³Edwin Cohen, "Television and Adult Education in the United States" (Ann Arbor, Mich.: Educational Television and Radio Center, 1958), p. 3.

has long been the policy of the National Educational Television and Radio Center, as it has been the policy of many other producers of educational programs in this country, to use authorities, subject matter experts, to present the content of the program to the television audience:

From the beginning it has been recognized that the Center staff must turn to outstanding authorities for support of program ideas, particularly in the field of content. For this reason whenever possible, arrangements are made for the sponsorship of programs on the side of substance by universities, colleges, or other academic organizations with standings in the field involved. . . . Consultants of national repute have been retained to work with the Center program staff in developing basic ideas, selecting specialized consultants, and **otherwise** assisting in the development of the general framework of the program service.¹

The program policy of the Center goes on to read, "The consultant may become the talent for the series as well as the designer on the content side."² There follows a representative list of adult, general information and cultural program series produced for the Center by a variety of educational stations and production centers. All of these programs feature expert authorities as on-camera performers.³

¹Robert Hudson, The Program Role of the Educational Television and Radio Center. A Progress Report (early 1959), p. 3.

²Ibid. Some observers believe that the Center is changing this policy and is beginning to use professional performers to a greater extent. The Center's use of Dave Garroway, Frank Blair, and Alexander Scourby would seem to bear this out. However, the Center continues to use experts as principal performers. The degree of "expertness," however, no longer seems to be as important as communicative ability, as long as the performer has some subject matter authority.

³This list was drawn from individual program data re-

PROGRAM SERIES

HOST-AUTHORITY

"The Elements"

Dr. Glenn T. Seaborg, Nobel prize winning nuclear scientist and Chancellor of the University of California at Berkley. Dr. Seaborg was Presidential appointee to the general advisory committee of the atomic energy commission and member of the joint commission on radioactivity of the University of California.

"Language and Linguistics"

Dr. Henry Lee Smith Jr., Chairman of the Department of Anthropology and Linguistics at the University of Buffalo and formerly Dean of the School of Languages in the United States State Department's Foreign Service Institute.

"Hats in the Ring"

Dr. Malcom Moos, Professor of Political Science at Johns Hopkins University, speech writer for President Eisenhower, and Administrative Assistant to the President in the Spring of 1960.

"Music as a Language"

Dr. Howard Hanson, American composer and Director of the Eastman School of Music.

"Frontier to Space"

Dr. Russell Sherburne, Professor of Physics at New Mexico College of Agriculture and Mechanical Arts.

"The Nature of Life"

Dr. H. Burr Roney, Associate Professor of Biology at the University of Houston.

"Understanding Numbers"

Dr. Phillip S. Jones, Associate Professor of Mathematics at The University of Michigan and member of the board of directors of the National Council of Teachers of Mathematics.

ports of Center programs and from An Instructional Utility Analysis of 319 Educational Television Programs (Ann Arbor, Mich.: Educational Television and Radio Center, 1958).

The Problem

It is beyond the scope of this study to attempt to assess the ability of any particular authority as a television speaker. It is well known, however, that a person who is an authority in a particular area is not necessarily a person who can communicate his knowledge to others effectively. When the host-authority is a good television presenter, the producer has chosen well, and the result is usually a successful program. But, when the basis for the producer's choice of an on-camera host is solely his authority as a subject matter expert, there is the possibility that the host will lack speech delivery skill. When this situation occurs the educational television producer must reflect on the purpose of the program: "to educate."¹ Education requires the communication of content material from a source to a recipient or, the learner. The speech situation presents just such opportunity for communication. When speech is the only means of communication, it would seem that a lack of speaking skill would hinder communication and thus education. Is not the producer defeating the basic purpose of the program if he chooses a host who is an excellent authority but who is a poor presenter?

The (National) Educational Television and Radio Center indicated a realization of this problem in 1957 when it

¹Cohen, loc. cit.

reported the following:

The continuing emphasis which the Center has placed on authoritative content and qualified performing personnel has had the effect of establishing the organization as an agency dedicated to "scholarship" and basic content values. Through the use of outstanding consultants on content, and through insistence that performers be highly qualified "students" of the subject, the Center has attracted the support of the academic community on a rather wide front. At times, criticisms that certain programs, though they may present highly qualified personnel, are somewhat dull and unimaginative, have been too close to the truth for comfort. Unfortunately, many competent authorities are quite unexceptional as television teachers. Our goal has been to present highly competent authorities who also are gifted performers, of course. We have preferred not to sacrifice content values for performance however, and at times this has resulted in programs which lack the vitality and excitement desired.¹

Since the purpose of the type of program under consideration in this study is to inform and educate, a measurement of information gain or retention would seem to be a partial measure of the success of the presenter and of the program.

As noted earlier, the at-home viewer of an educational television program is not a captive viewer.² He watches by choice, and quite obviously he watches what he likes. One of the prime considerations in television is the capacity of the program to gain and hold an audience.³ Cohen indi-

¹ A Report from the Educational Television and Radio Center to the Ford Foundation (Ann Arbor, Mich.: Educational Television and Radio Center, 1958), pp. 4-5.

² Supra, p. 4.

³ Giraud Chester, Garnet R. Garrison, and Edgar E. Willis, Television and Radio (New York: Appleton-Century-Crofts, Inc., 1963), p. 221.

cates the responsibility of educational television to "catch and hold a potential audience."¹

A certain percentage of this responsibility to attract and maintain an audience rests with the program host or presenter. In many instances his continued appearance will cause it to seem to be "his program." In order to judge the effectiveness of the presenter of information on an educational television program it is necessary to have a measurement of his ability to "catch and hold a potential audience." In order to obtain such a measure this study will attempt to access the degree to which the presenter approaches the kind of speaker the viewer most likes to watch on television.

Definitions

In order to acquire an index of presenter effectiveness we will first obtain a description of the viewer's perception of the kind of speaker he most likes to watch on television. With this measure as a base, it will then be possible to calculate the proximity of a given television speaker to the viewer's perception of his ideal television speaker. The result of this calculation will be called proximity. More specifically, it is the viewer's perception of the presenter's proximity to the viewer's ideal television speaker; it will be referred to hereafter in this study as perceived proximity. The viewer's perceived

¹Cohen, loc. cit.

proximity then, will serve as an index to the viewer's estimation of the quality of the speaker's performance and therefore as an indication of the viewer's disposition to watch the program.

This study is concerned then, with two dimensions of the educational television presenter: his performance, in other words, his speech delivery skill; and his level of authoritativeness or his prestige. Highlander indicates that "The mass media tend to confer prestige on a performer by the very fact that he has been singled out to appear before the public."¹ The prestige of television presenters is relative and must be defined in terms of other presenters on television. Presumably, a professor at a leading American university, who has written many books and articles, who has held office in professional organizations, and who is speaking on the subject matter of his professional interest is a presenter with high prestige. In comparison, a presenter who is introduced only as a "host," not designated as any of these things, and who has no professional kinship with the subject matter of the program would be a low prestige presenter; he would not be an expert. These extremes then, both common occurrences on educational television programs, of relative high and low prestige will be the limitations on the dimensionality of prestige for this

¹John Palmer Highlander, "Audience Analyzer Measurements and Informational Effects of Speaker Variables in Radio Talks" (unpublished Ph.D. dissertation, University of Wisconsin, 1953), reported in Speech Monographs, XXI (1954), pp. 189-190.

study.

The extremes of good and poor speech delivery are usually apparent. The many varieties of speaking skill between these two extremes are not so apparent. We tend to remember when we have seen and heard a very good speaker or a very bad one, but the speaker with "average" ability makes no particular impression. If speaking skill then, has any affect (1) on viewer retention or (2) on viewer perception of proximity, this effect should appear most readily from one of the two extremes of good or poor delivery. On the dimensionality of speaking skill then, "good speech delivery" and "poor speech delivery" will be the limitations of this study.

Just as their commercial counterparts, educational television programs vary in length depending on program content and time availability for broadcast. This study is confined to an investigation of the variables during a fifteen-minute program.

Although many educational television programs are produced and broadcast as a series, with the same host continuing for all of the programs over a number of weeks, this study is limited to the measurement of the effects of the variables in a one-time-only program. If the effects under investigation prove to be significant enough to warrant further research, the widespread differences in series length might then be considered.

Perhaps the special demands of specific content areas

would alter any effects of the variables revealed by this study. Because of the scope and diversity of subjects for educational television, there would be opportunity for wide exploration of this variable. The present study, however, will be limited to the effects of the variables in a program on American History. Once again, based on the results of this specific investigation, content variations in programming might well become an area for future study.

In summary, since the research of the last several years gives good reason to believe that television is an effective teaching medium, there is a need for specific studies to determine how television may be used most effectively for educational purposes. Teaching via television can be accomplished formally by "instructional" programs, or informally by "educational" programs. In order to insure educational quality, producers of educational programs often use content authorities as on-camera performers, even when there is often no guarantee that the expert will be able to communicate his material effectively. Such a situation raises questions in regard to the contribution of the expert to the basic purpose of the program. Will a man introduced as a professor at a leading American university, who has written many books and articles, who has held office in professional organizations and who is speaking on a subject of his professional interest be perceived as having relatively high prestige? If so, how important is prestige in fulfilling the basic purpose of the educational televi-

sion program? More specifically, what effect does the level of presenter prestige have on viewer retention and perception of proximity? How important is presenter speech delivery skill to viewer retention and perception of proximity? Will a high degree of presenter prestige compensate for a lack of speech delivery skill? Finally, a question regarding the relationship of the viewer's retention level to his change in proximity perception during the program: What is the relationship between viewer retention and change in proximity perception during the program?

Hypotheses

The questions posed in the discussion above may be phrased as null hypotheses to be experimentally tested:

(1) Superior presenter speech delivery will produce no significantly higher immediate or delayed retention effects than will inferior speech delivery.

(2) Superior presenter speech delivery will produce no significantly higher degree of viewer-perceived proximity than will inferior speech delivery.

(3) Relatively high presenter prestige will produce no significantly higher immediate or delayed retention effects than will relatively low prestige.

(4) Relatively high presenter prestige will produce no significantly higher degree of viewer-perceived proximity than will relatively low prestige.

(5) There is no significant correlation between viewer retention and viewer-perceived proximity following the

program.

(6) There is no significant correlation between viewer retention and viewer-perceived proximity movement during the program.

This study is designed to investigate the relative effectiveness of the presenter of information on an educational television program. The two dimensions of the presenter's performance under investigation are (1) prestige, and (2) speech delivery skill. This study will experimentally test the effects of the extremes of relative high and low prestige, and good and poor speech delivery. These effects will be measured as they affect (1) viewer retention, and (2) viewer perception of proximity. The program under consideration is a fifteen-minute, one-time-only program on American History.

CHAPTER II

A SUMMARY OF THE RELATED RESEARCH

Rationale

We can generally consider prestige on educational television programs to be one of two types: (1) topic-oriented prestige, or (2) well-known personality prestige. Speakers with topic-oriented prestige, are experts on a particular topic, speaking about that topic.¹ Speakers who are well-known personalities can be either closely related to their topic,² or speaking in an area not specifically of their specialization.³ Topic-oriented prestige is generally thought to include authorities who are not well known to the lay public and must be specifically introduced to the audience as authorities or experts.

This chapter will report the research studies that are specifically relevant to the problems of the present study.

¹Such as Dr. Wendell M. Stanley, Nobel prize winner and Director of the University of California Virus Laboratory, on the NETRC series, "Virus."

²Such as Mrs. Eleanor Roosevelt on the NETRC series, "Prospects of Mankind."

³Such as Dr. Frank Baxter, Professor of English at the University of Southern California, on "Mr. Sun," "Hemo the Magnificent" and other commercial science programs produced for the Bell Telephone Company.

The purpose of the present study is to investigate the effects of a topic-oriented prestige label and the delivery skill of a single presenter of information on an educational television program. In addition to being topic-oriented the prestige label is extrinsic; that is, it is provided by an off-camera announcer before the presenter begins and again, in shorter form, after the presenter finishes. Since television tends to confer prestige by the very fact that the television presenter has been selected to appear before the public,¹ the prestige labels in this study are relative levels of positive or high prestige.² Those studies that include extrinsic prestige as an independent variable, but which vary prestige as relatively high and low or relatively favorable and unfavorable will not be included.³ It is not likely that a study of the effects of negative or unfavorable prestige labels would be applicable to educational television programming. Delivery skill in the present study was varied according to the extremes of good and poor speech delivery.

Only those research studies which contain findings related to the above experimental conditions will be reviewed

¹Highlander, loc. cit.

²Infra, p. 55.

³Such as Malcom Moos and Bertram Koslin, "Prestige Suggestion and Political Leadership," Public Opinion Quarterly, XVI (1952), 77-93; Herbert Birch, "The Effect of Socially Disapproved Labeling upon a Well-Structured Social Attitude," Journal of Abnormal and Social Psychology, XL (1945), 301-310.

here. Those studies are included in which the independent variable is a difference in treatment basically related to the extrinsic prestige or speech delivery of an individual speaker. A large number of studies have used non-verbal communication. These investigations, which attributed a communication to different prestige sources, are not directly related to the television speaking situation and will not be included here.¹ Those studies included have as their dependent variable either the general area of attitude or information gain.

The research related to this study comes from the areas of psychology, sociology, education, and speech. In the majority of cases only a segment of the research is relevant to the present study. Although some of the related studies have been primarily concerned with testing hypotheses in informational speech situations, the majority are studies of persuasion. The persuasion research studies that are relevant to the present study have sought some kind of attitude or opinion judgment. Although the attitude of the viewer toward the presenter in the present study is defined as a rather specific one, perceived proximity, it nevertheless falls into the general category of attitude and opinion.² Studies in persuasion, therefore, comprise much

¹Such as Carl Hovland and Walter Weiss, "The Influence of Source Credibility on Communication Effectiveness," Public Opinion Quarterly, XV (1951), 635-650; Raymond Bernberg, "Prestige Suggestion in Art as Communication," Journal of Social Psychology, XXXVIII (1953), 23-30.

²Supra, pp. 9-10.

of the body of research related to the present study.

Still other studies to be considered were undertaken in order to yield information within the context of the classroom. Although there are motivational differences between instructional and educational television, the use of a basic lecturer is common on both types of programs.

Some studies have attempted specifically to measure prestige, others have used credibility as an independent variable. Hovland, Janis and Kelly define credibility:

It seems necessary, therefore, to make a distinction between (1) the extent to which a communicator is perceived to be a source of valid assumptions (his "expertness") and (2) the degree of confidence in the communicator's intent to communicate the assertions he considers most valid, (his "trustworthiness"). In any given case, the weight given a communicator's assertions by his audience will depend on both of these factors, and this resultant value can be referred to as the "credibility" of the communicator.¹

In a number of the investigations, the experimenters have chosen to study the effects of the variables on various subgroups within the sample. In a summary of experimental research in ethos, Andersen and Clevenger point out that prestige is often studied as an individual measure:

. . . in some studies ethos is regarded as differing from one subgroup to another, and data are treated separately for such variables as sex, occupation, educational status, and even political affiliation. A few studies even consider the prestige of the source in respect to each individual auditor.²

¹ Carl Hovland, Irving Janis, and Harold Kelly, Communication and Persuasion: Studies of Opinion Change (New Haven: Yale University Press, 1953), p. 21.

² Kenneth Andersen and Theodore Clevenger, Jr., "A Summary of Experimental Research in Ethos," Speech Monographs, XXX (1963), 59-78.

The present study will assume an average measure of the audience, not an individual measure. Although some investigators have analyzed their data according to these various subgroups, they have also summed across these subgroups to compute the effect of the variables on the whole sample.

A feature of some of the studies, especially those in persuasion, is an investigation of the effects of the variable over a lapse in time after hearing the message. There will be no attempt in the present study to measure the delayed attitudinal effects of the independent variables. The effects of the variables on retention, however, will be measured both immediately following the presentation and four weeks later. The findings regarding the delayed effects of prestige and delivery in the related studies, therefore, will be valuable in the interpretation of some of the delayed effects data in the present study.

Because topic-oriented prestige, or expertness, is presumably a component of credibility, studies using speaker credibility as an independent variable bear some relevance to the present study. The similarity of the production techniques for educational and instructional programs makes it advisable to include those studies in instructional television that contain the variables under consideration. Finally, the medium of communication in the majority of studies to be discussed was radio, tape-recorded speeches, or the face-to-face public speaking situation; not television. Although the mode of communication was never a vari-

able in these studies, this fact should be noted.

The major divisions of this chapter concern the areas of investigation that pertain to each of the independent variables under consideration: (1) Those studies that investigate the effects of extrinsic speaker prestige; (2) those that investigate the effects of delivery; and (3) those that study the relationship between audience attitude and retention.

Studies that Investigate the Effects of Speaker Prestige

The effects of prestige on retention

Two of the studies cited here are specific investigations in informative speaking; two others are in the area of persuasion. In a study by Kelman and Hovland subjects listened to a radio program during which a guest speaker gave a talk favoring extreme leniency in the treatment of juvenile delinquents. The subjects were divided into three groups; each group hearing a different level of source credibility.¹ In order to attach positive, neutral and negative credibility labels to the speech, the speaker was introduced in three different ways: In the positive version he was introduced as a highly-trained and well-informed judge; an authority on criminology. In the neutral version he was a member of the studio audience. In the negative version he

¹H. C. Kelman and C. I. Hovland, "'Reinstatement' of the Communicator in Delayed Measurement of Opinion Change," Journal of Abnormal and Social Psychology, XLVIII (1953), 327-335.

revealed that he was a former juvenile delinquent and was currently in trouble with the law. As noted earlier the use of the negative credibility label does not bear on the present study.¹ Kelman and Hovland's analysis of data, however, makes it possible to consider only the effects of the positive and neutral credibility sources on the dependent variables. Three weeks after hearing the radio speech, the subjects were given a factual recall test, the analysis of which revealed no significant differences in recall scores between the audiences who heard the neutral and positive credibility sources. It is interesting to note that Hovland and Weiss, in a similar study of the effects of source credibility in non-verbal communication, obtained the same kind of result on an information recall test immediately following the communication.² Although expertness, or topic-oriented prestige is one component of source credibility, we cannot be sure that the retention test scores were largely a result of the prestige factor. In reference to their summary of research on communicator credibility, Hovland, Janis, and Kelly note:

From the results it is not possible to disentangle the effects of the two main components of credibility--"trustworthiness" and "expertness" but it appears both are important variables.³

¹Supra, p. 16.

²Carl Hovland and Walter Weiss, "The Influence of Source Credibility on Communication Effectiveness," Public Opinion Quarterly, XV (1951), 635-650.

³Op. cit., p. 35.

The research by Kelman and Hovland indicates that credibility level of the source of a persuasive speech has no significant effect on the retention of information following the speech. Since we are unable to disentangle prestige from trustworthiness in the credibility source, we can know only that credibility, in this experiment, was operating to produce the reported result.

In another study using persuasive messages, Paulson obtained measurements of audience retention as a result of speaker prestige.¹ After the subjects had indicated their opinions on lowering the voting age to eighteen, he divided them into two groups. Both groups heard a recorded speech favoring the lowering of the voting age. To one group he introduced the speaker as a sophomore at the University of Minnesota; to the other the speaker was introduced as a Professor of Political Science at the University of Chicago, the author of a book on voting habits of the American people, and past President of the American Political Science Association. The subjects were then given a shift-of-opinion ballot and an information-retention test. When measuring the effects of prestige differences, Paulson found that there was no significant difference in the retention scores of the group who had heard the "university student" and the group who had heard the "professor." Paulson's assignment of

¹ Stanley F. Paulson, "The Effects of Prestige of the Speaker and Acknowledgment of Opposing Arguments on Audience Retention and Shift-of-Opinion," Speech Monographs, XXI (1954), 267-271.

a specific high prestige label was very similar to the type of label currently assigned to "high-prestige" educational television presenters, and somewhat similar to the "high-prestige" label of the presenter in the present study.¹

The majority of television studies surveyed were concerned with evaluations between the media, in other words, the effects of television compared to face-to-face classroom teaching. Kumata undertook just such a study.² In addition to the between-media variables, however, the study was designed to investigate the effects of television-instructor prestige in a classroom environment. Kumata tested the effects of the variables during a one-time-only television lecture in a college social science class at Michigan State University. Three instructors presented a television lecture on power politics to students in their classrooms; the instructors were assigned three differing degrees of prestige. The prestige label was announced in each case by the classroom teacher. One of the instructors delivered the lecture with no introduction; he was considered to be an ordinary instructor. One of the instructors was introduced as the expert on power politics in the department. And one of the instructors was introduced as a national authority on power politics. In order to test information gain as an

¹Infra, p. 55.

²Hideya Kumata, Attitude Change and Learning as a Function of Prestige of Instructor and Mode of Presentation: Two Experimental Studies in Instructional Television, (East Lansing, Mich.: Communications Research Center, Michigan State University, 1958).

effect of prestige, Kumata used a fifteen-item multiple-choice test immediately following the lecture and again eight weeks later. His analysis revealed that retention scores on the post-test and the delayed post-test were no higher for one prestige-level instructor than for another. Assuming different levels were established, his findings indicated that instructor prestige had no significant effect on student retention, a finding concurrent with those of Kelman and Hovland¹ and Paulson.²

There are some serious problems, however, connected with Kumata's methodology. At the beginning of the study he admits: "Since three instructors were utilized, the different instructors themselves may be considered as independent variables."³ Indeed, his analysis of rating scales of the performances of the three instructors showed that they were all different and so could not be considered replications.⁴ We have no way of knowing, therefore, that the effects reported by Kumata were not a result of the differences in the communicative ability of the instructors.

Additional problems arose when Kumata attempted to validate the assumed prestige differences between the departmental expert and the national expert:

The analysis [of expert-inexpert] failed to show a difference in expertness as a function of prestige or expert level, something we would expect if the two prestige levels were operating as intended.⁵

¹Op. cit.

²Op. cit.

³Op. cit., p. 9.

⁴Ibid., p. 101.

⁵Ibid., p. 66.

Further, that no main effects for the prestige levels were found in the analysis of the data throws some doubt on the tenability of the assumption that departmental expert and national expert were perceived as differing in degree of expertness. Kumata's findings are generally similar to those of the other studies cited. The existence of the uncontrolled instructor-ability variable, and the lack of difference in perceived prestige for the two labels makes it necessary, however, to view these findings with some skepticism.

A study designed to test the effects of speaker variables by means of an electrical audience analyzer and an information-retention test was conducted by Highlander.¹ Among other variables tested in this study was speaker prestige. Thirty-minute public-service radio talks on poliomyelitis and highway safety were each played for two groups of subjects. The same announcer recorded presumed neutral- and high-prestige introductions for the speakers. One group heard the "high-prestige" version, the other group heard the "low-prestige" version. Utilizing a fifty-four item true-false information-recall test, Highlander measured the effects of speaker prestige. His analysis revealed that there were no significant differences between the retention scores of those who had heard the "high-prestige" introduction and those who had heard the "low-prestige" introduction. Highlander's findings, then, concur with those of Kelman and Hov-

¹Op. cit.

land, Paulson, and Kumata. Since he provided no check system, it is entirely possible, as in Kumata's study, that the experimental prestige levels failed to operate as predicted. Since public-service radio talks are somewhat similar in purpose to the educational television program, Highlander's research bears more than indirect relevance to the present study.

In summary, the studies designed partially to investigate the effects of speaker prestige on audience retention of information are limited to specific areas of research different from that of the present study. Two of these related studies were investigations of persuasion, one of instructional television, and one of public-service radio talks. The nature of these findings is so similar, however, that we can predict, assuming differences in prestige were created, that prestige is not likely to affect retention in the present study. In a summary of studies in ethos, of which speaker prestige is a subclassification, Andersen and Clevenger conclude:

. . . There is not enough evidence to suggest that the amount of information gained from exposure to a message is related to the ethos of the source--at least this lack of relationship seems to be true of college populations.¹

The effects of prestige on attitude

The related research indicates no relationship between speaker prestige and listener information recall, but it re-

¹Op. cit., p. 77.

veals numerous instances when audience attitude was found to be affected by speaker prestige. Studies designed to discover the effects of prestige on attitude have largely been in the area of persuasion. These studies have not always been concerned with audience attitude toward the speaker himself; more often they have measured audience attitudes toward the speaker's thesis. Hovland, Janis and Kelly indicate that there is a relationship between attitudes toward the speaker and toward his point of view: "The evidence is quite clear that acceptance or rejection [of the thesis] depends in part upon attitudinal reactions toward the source of the communication."¹ Although it is important to recognize the differences in purpose and technique between informative and persuasive speaking, the basic similarities make these studies relevant to the present study.

Two of the three experiments in a study by Haiman are relevant to the present study.² In Haiman's first experiment three different groups of subjects heard a fifteen-minute recorded speech advocating compulsory health insurance. Three different introductions were used to give the speaker high, neutral, and low prestige. Each group heard a different introduction of the speaker. The high prestige introduction labeled the speaker as Dr. Thomas Parron, Surgeon General of the United States; the subjects were then

¹Op. cit., p. 252.

²Franklyn S. Haiman, "An Experimental Study of the Effects of Ethos in Public Speaking," Speech Monographs, XVI (1949), 190-202.

told in a short paragraph about Dr. Parron's qualifications. The neutral-prestige version introduced the speaker as a Northwestern University sophomore. The low-prestige introduction named the speaker as Eugene Dennis, Secretary General of the Communist Party of America. As in the reporting of the study by Kelman and Hovland, there will be no attempt to report the effects of the low-prestige label. Haiman's analysis makes it possible to confine this discussion to the relevant levels of neutral and high prestige labels.

In order to validate the difference in prestige labels that he had assumed to be significant, the experimenter asked the subjects to complete a nine-point quantitative indication of their impression of the speaker's reputation and of his competency. The results of these scales indicated that the difference between the high-prestige introduction, Parron, and the neutral-prestige introduction, the sophomore, was significant. After the groups had heard the three versions of the speech they completed a Woodward shift-of-opinion ballot.

Haiman's analysis revealed that the opinion shift obtained by the high-prestige version was significantly higher than that obtained by either the low- or neutral-prestige versions. The shift-of-opinion obtained by the high-prestige version contained a significantly greater proportion of favorable shifts than did the other two versions.

The second experiment was designed to test the effect of the over-all personality and skill of the speakers on

audience shift-of-opinion. Four students, selected by the experimenter because he felt they had high and low ethos, delivered the persuasive speech on compulsory health insurance. Both before and following the speech the audience filled out a Woodward shift-of-opinion ballot and the same graphic rating scales that were used in the first phase of the study. Although the independent variable of sex differences was introduced into this phase of the study, Haiman's examination of the over-all effects of high and low ethos is relevant to the present study. The students who delivered the speeches were: high-ethos male, high-ethos female, low-ethos male, and low-ethos female. The experimenter's choice of high- and low-ethos speakers was confirmed by the subjects. Although the individual high- and low-ethos speakers did not affect a significantly different shift-of-opinion, the two high-ethos speakers produced a significantly greater combined shift-of-opinion than did the two low-ethos speakers.¹

In summary, this study of the over-all effects of ethos, including prestige, in persuasion reveals findings relevant to the present study. As a result of the first phase of the study, Haiman reported that audience attitudes are affected in the predicted direction by the prestige of the speaker. In the second phase of this study the analysis indicated that speakers of generally high ethos affect audience opinions, in the direction predicted, more than do

¹ Haiman, op. cit., p. 197.

speakers of generally low ethos.

In the study by Kelman and Hovland, in which subjects listened to guest speakers on a radio program advocating leniency in the treatment of juvenile delinquents, the investigators measured audience attitude as well as retention.¹ Using the same techniques as Haiman, these experimenters administered a shift-of-opinion ballot to subjects who had heard the speech attributed to speakers with varying degrees of credibility.² Their findings indicate the group that heard the speaker introduced as the positive-prestige source favored lenient treatment for juvenile delinquents significantly more than did the group that heard the low-prestige speaker. The difference between positive and neutral sources, however, was not significant.³ Since this was a study of the effects of credibility, the investigators administered a "fairness" rating scale to the subjects. The group that had heard the positive-credibility speaker rated him significantly higher than did the group that had heard the neutral or negative versions.⁴

Contrary to the findings of Haiman, and Kelman and Hovland are those of Paulson.⁵ In addition to the retention test, Paulson used a shift-of-opinion ballot to measure audience attitudes toward lowering the voting age to eighteen. The speech that advocated the proposition was given to two groups by speakers described as a university

¹Loc. cit.

²Haiman, loc. cit.

³Kelman and Hovland, op. cit., p. 331.

⁴Ibid.

⁵Loc. cit.

sophomore, and a Professor of Political Science, the author of a book on voting habits of the American people, and past President of the American Political Science Association. Paulson divided his sample into subgroups according to sex. Although a significantly higher percentage of men who heard the "professor" shifted their opinions to agree with him, there was no over-all shift-of-opinion based on the prestige differences. Both Kelman and Hovland,¹ and Haiman published contrary findings.² The prestige labels used by these other experimenters seem to be somewhat different than the high-prestige label used by Paulson. Paulson's "expert" was a Professor of Political Science, an author, and past president of his professional organization. Kelman and Hovland used a highly-trained and well-informed judge who was an authority on criminology. Haiman's "expert" was Dr. Thomas Parron, Surgeon General of the United States. Although no empirical research has compared these various labels, it is entirely possible that their differences in degree and kind were operating to influence the experimental findings of these investigators.

In summary, the differences in kind and degree of prestige may account for the difference in findings between the Paulson study and those by Kelman and Hovland, and Haiman. The findings of Paulson's study state clearly, however, that speaker prestige had no over-all affect on audience attitude toward the subject of the speech.

¹Op. cit.

²Op. cit.

Another study that failed to reveal attitudinal effects of speaker prestige was that by Highlander.¹ Instead of the often used shift-of-opinion technique for measuring attitudes, this investigator utilized the Wisconsin sequential-audience analyzer. This electrical device records listener likes and dislikes throughout the course of a presentation, in this case, public-service radio talks on highway safety and poliomyelitis. The fact that Highlander was measuring the extent to which listeners generally liked these informational programs, and not specifically their opinions toward the speaker's thesis, may account for the differences in findings between this study and those by Kelman and Hovland, and Haiman. The Highlander study would seem to indicate that results of experiments in persuasive speaking may not be useful in predicting the results of studies that deal with informational speaking. Highlander reported that assumed variations in speaker prestige did not seem to be an important factor in establishing a basic reaction pattern on the audience analyzer. Although the like-dislike scale of such an analyzer falls into the general area referred to as "attitudes," there is no evidence to suggest a similarity between such a reaction to an informational program and an opinion on a specific persuasive proposition. It is not surprising, therefore, that this experiment in informational speaking had different results from the persuasion studies cited earlier.

¹Op. cit.

In summary, Highlander's study of informative public-service radio talks revealed that assumed prestige had no effect on audience attitudes as reflected by like-dislike reactions on the Wisconsin sequential-audience analyzer. The difference in findings between this study and others concerned with persuasive speaking may well lie in the differences in purpose and technique between the two forms of speaking.

In Kumata's instructional television study of instructor prestige, the experimental design permitted an analysis of the effects of instructor prestige on student attitudes as well as on retention. One of the dependent variables in Kumata's experiment was student attitude toward the instructor; expertness of the instructor was one of the independent variables. Kumata's difficulty in producing two different levels of instructor prestige and finding instructors to function as replications has already been discussed.¹ In order to measure student attitudes toward the instructor, this investigator utilized a semantic-differential scaling technique.² Subjects rated the guest instructor on scales for the evaluative, potency and activity factors. The results of the post-test, administered immediately after the social science lectures were inconclusive. Because Kumata's three instructors were of differing ability, the analysis revealed a number of significant differences due to instructor differences; there was also some instructor-prestige

¹Supra, p. 11.

²Infra, p. 49.

interaction. In general, student ratings of the instructors on the evaluative factor increased according to the instructor's assigned prestige. One of the instructor's ratings, however, decreased as his assigned prestige was increased. On the potency factor, instructors received significantly higher ratings of strength as national experts than when they performed as departmental experts.¹ The clear-hazy scale produced a difference due to prestige variation. Instructors were rated as clearer when they performed as national experts than when they performed as departmental experts.

From the analysis of the delayed post-test, administered eight weeks after the social science lectures, Kumata reported more significant differences than on the immediate post-test. The direction of the student reactions, however, was not as had been expected by the investigator. There was a greater change toward less favorability when instructors appeared as national experts than when they appeared as departmental experts.² Significant differences as a result of "prestige" were apparent in the evaluative, potency, and activity scales; all of these differences were unfavorable toward the instructor when he appeared as a national expert.

In summary, on the immediate post-test, the potency scales and the clear-hazy scales did reflect a "prestige" effect on the students' attitudes toward their instructor. When the instructors performed as national experts, they

¹Kumata, op. cit., p. 64.

²Ibid., pp. 82-85.

elicited higher ratings of "strong" and "clear" than when they were departmental experts. On the delayed post-test, however, prestige variations accounted for a significant difference in student ratings of their instructors; the direction of the ratings was opposite from that which had been predicted. Due largely to problems in methodology, this experimental study in instructional television presents inconclusive evidence regarding the effects of television instructor prestige on student attitudes.

The majority of the related research concerning speaker prestige would seem to indicate that prestige has some effect on audience attitudes toward the speaker and his thesis. None of the evidence, however, indicates that different levels of speaker prestige have an effect on audience retention of the content of the speech.

Studies that Investigate the Effects of Speaker Delivery Skill

The effects of delivery skill on retention

In the instructional television study by Kumata, the investigator used a fifteen-item multiple-choice test of retention from the lectures.¹ Although this study was not designed with speech delivery as an independent variable, one of the volunteer instructors was found to be a significantly better teacher than the others. On both the immediate- and delayed-retention tests, the superior instructor produced

¹Op. cit.

the highest scores. Although this is only an incidental finding of Kumata's experiment, it is an indication of a possible causal relationship between speaker delivery skill and audience retention of information from the speech.

Highlander utilized a fifty-four item true-false test to measure retention in his study of public-service radio talks.¹ Each of the talks was delivered by a good and poor speaker. Highlander's analysis revealed that the less-able speakers produced retention scores as high as the superior speakers. In this experimental finding, then, speaker delivery skill had no effect on viewer retention of the content of the talk. Because Highlander's study was specifically designed to investigate delivery effects, it is not surprising that his results are contradictory to the incidental findings of Kumata.

Another study designed specifically to test, among other variables, the effects of good and poor speech delivery on audience retention was that by Knower, Phillips and Keoppel.² The speakers in this study were selected by the experimenters and then validated as "good" and "poor" on a nine point scale by the subjects. Knower, Phillips and Keoppel were studying the effects of superior and inferior reading skill as well as the effects of speaking ability.

¹Loc. cit.

²Franklin H. Knower, David Phillips, and Fern Keoppel, "Studies in Listening to Informative Speaking," Journal of Abnormal and Social Psychology, XXXX (1945), 32-38.

Their findings, on a forty-item multiple-choice test for reading and speaking effects are similar: "The comparative effectiveness of speaking and oral reading as methods of presenting material depends upon the quality of the performance."¹ Knowler, Phillips and Koeppel, then, found that the good speakers produced a significantly greater amount of recall than the poor speakers. In addition, good reading produced significantly higher retention scores than did poor reading. These results are in contrast with those of Highlander and Kumata.

In another related study that included skilled and unskilled oral readers as one of the independent variables, Beighley tested his subjects for comprehension of the content of the passage.² His comprehension test was made up of items of factual recall. The content of the message used in this experiment was not held constant. The skilled and unskilled readers delivered messages that were organized and disorganized, easy and difficult to comprehend. Beighley found an interaction between these three independent variables. Tested immediately following the presentation, superior oral reading ability produced statistically superior comprehension scores only when the material was difficult and when it was disorganized. There was no difference in

¹ Ibid., p. 86.

² K. C. Beighley, "An Experimental Study of the Effects of Four Speech Variables on Listener Comprehension," Speech Monographs, XVII (1952), 249-258.

comprehension scores when the material was easy or when it was organized. The goals of the educational television program demand, of course, that it be as organized as possible. Although such programs do not seek out the least common denominator of audience intelligence, neither do the majority attempt to be difficult. For educational broadcasters, then, the results of Beighley's study may be interpreted in two ways: Reading skill, closely related to speech delivery skill, has little effect on retention; or reading skill, when the material tends to be difficult and disorganized, significantly affects audience retention.

In a study using motivated college-classroom audiences Haiman measured the effects of superior and untrained speakers.¹ Subjects, who were told they would be tested on the material, listened to a speech on psychology which was intended to be "interesting."² The experiment was conducted in three phases. During the first phase the speakers' performances were rated as nearly equal. This is perhaps due to the fact that the person selected as the poorer speaker appeared before his own classmates. In phases two and three the subjects made a significant distinction between the good and poor speakers. In all phases of the study the superior speaker produced slightly higher retention mean scores than did the untrained speaker. The difference in mean scores

¹Franklyn Haiman, "An Experiment in Informational Speaking," Quarterly Journal of Speech, XXXIV (1948), 355-360.

²Ibid., p. 356.

was statistically significant at the five per cent level. With only fifteen items on the retention test, however, and significance being caused by differences of little more than one question, the practical significance is somewhat questionable. Haiman makes the following observation in regard to his findings:

Although we cannot definitely conclude it from the results as they stand, the data suggests that a speaker with greater skill and personality can perhaps obtain a slightly greater degree of comprehension from his audience than a weaker speaker--when motivation to listen is provided.¹

Because the difference in mean scores was slight, although it was statistically significant, Haiman seemed justified in reporting ". . . it is possible for an average person to secure essentially the same degree of comprehension as a speaker of superior skill and personality."² It is important to note the presence of viewer motivation in this study. For this reason the results would probably be more relevant to a study of instructional television.

In summary, the findings of studies concerning the effects of speaker delivery skill are contradictory. Of those investigators who found speaker delivery skill operating to affect audience retention, Knower offers the most positive findings. His study indicated that retention from superior readers and speakers is higher than from inferior readers and speakers. Kumata's incidental correlation of perceived instructor ability with viewer retention scores is in keep-

¹ Ibid., p. 360.

² Ibid.

ing with Knower's findings. The study by Haiman was specifically concerned with a motivated college-classroom audience. Although Haiman's analysis was not designed to measure the effects of motivation, it is quite possible that this motivation helped to cause the slightly different, but statistically significant, retention scores. Beighley's analysis of interaction revealed that speaker delivery skill did not affect audience retention, except when the material was difficult and disorganized, a finding of questionable use in educational television programming. Highlander's findings indicated that subjects who listened to an inferior speaker delivering a public-service radio talk retained no less from the program than did those who heard a superior speaker. These differing results would seem to indicate a need for further research in this area.

The effects of delivery skill on attitude

Very few investigators have attempted to assess the effects of speech delivery skill on audience attitude. In measuring listener attitude toward radio programs by means of the Wisconsin sequential-audience analyzer, Highlander discovered some of these effects.¹ The primary speech delivery finding of this study was that speaker ability was not operating to establish an over-all favorable audience reaction. However, given an "interesting" topic there was a tendency for the superior speaker to increase the basic-

¹Op. cit.

ally favorable audience reaction. The less able speaker, on the other hand, tended to reduce the extent of a favorable reaction or heighten a generally unfavorable one.¹ With the program content and speaker prestige held constant, the independent variable of speaker ability can be seen to affect audience attitude as measured by the Wisconsin sequential-audience analyzer.

In the second phase of his study of ethos in public speaking, Haiman reported an incidental finding which would seem to indicate an effect of speaker delivery on audience attitude. Noting that the high-ethos speakers generally obtained significantly greater shifts-of-opinion than did the low-ethos speakers, we might say that speech delivery, as partially reflected in ratings of speaker ethos, helped produce a significant effect on audience attitudes toward the speaker's thesis.

In summary, while not specifically designed for that purpose, these studies have provided some evidence that speech delivery skill has an effect on audience attitudes. In each instance these attitudes have been toward the speaker's thesis or the content of his message. There has been no attempt to measure directly the effect of speaker delivery skill on audience attitude toward the speaker.

The results of the related research concerning the effects of variations in speaker delivery on audience retention are contradictory. These specific findings are from

¹Op. cit.

studies designed with differing purposes and carried out under differing conditions; it is not surprising that they do not agree in their results. Although there has been no direct investigation of the effect of speaker delivery skill on audience attitude toward the speaker, the limited number of allied studies would seem to indicate the presence of such an effect.

Studies that Investigate the Relationship Between Attitude and Retention

A limited number of studies have produced findings that indicate a correlation between audience attitude and retention. A feature of the design of the instructional television study by Kumata was a series of rating scales for each of the three volunteer instructors.¹ An analysis of the fifteen-item retention test revealed that the man who was rated best on the scales produced the highest retention scores.

Highlander noted that the public-service radio talk that registered the most "like" reactions on the audience analyzer, was the same speech that caused consistent and steady information gains.²

A third study that produced results similar to those already cited was that by Paulson.³ After subjects had completed a shift-of-opinion ballot, they heard a recorded speech favoring lowering the voting age to eighteen. Fol-

¹Op. cit.

²Op. cit.

³Op. cit.

lowing the speech the subjects filled out the shift-of-opinion ballot for the second time, and also completed an information retention test. Paulson's analysis showed that subjects who were initially favorable to the speaker's thesis had significantly higher mean retention scores than those who were initially against. Furthermore, subjects who shifted in opinion had higher mean retention scores than those who did not shift.

The evidence in these investigations indicated that a relationship does exist between audience attitude and retention. One of the studies, that by Paulson, indicates a correlation between attitude movement during the program, indicated by shift-of-opinion, and retention scores. This finding is particularly relevant to the present study. Two of these studies measure audience attitude toward the content or thesis of the speech. The Kumata study is a direct measurement of audience attitudes toward the speaker. Thus, these studies differ in nature. The Kumata study is of college-level instructional television, Highlander investigated informational radio talks, and Paulson was concerned with persuasive speaking.

In summary, the research directly related to the present study is divided into five parts: studies that investigate (1) the effects of speaker prestige on audience retention; (2) the effects of speaker prestige on audience attitude; (3) the effects of speaker delivery skill on audience retention; (4) the effects of speaker delivery skill on au-

dience attitude; and (5) the relationship between audience attitude and retention.

The majority of related studies are primarily concerned with persuasion. Other related investigations have studied the variables in an instructional situation, and still others have arisen in order to test the presentation of informal, informational messages.

The summary of evidence garnered from these related studies indicates (1) speaker prestige has little affect on audience retention; (2) speaker prestige has some affect on audience attitudes toward the speaker and his thesis; (3) results of studies of the effects of speaker delivery skill on audience retention are contradictory; (4) there is some effect of speaker delivery skill on audience attitudes toward the speaker and his thesis; and (5) there is a relationship between audience attitudes toward the speaker, his thesis and audience retention. Although the findings from these investigations are not always conclusive, they provide a base and direction for the present study.

CHAPTER III

THE EXPERIMENT

Experimental Design

This study was designed to investigate (1) the effects of presenter delivery skill and prestige on immediate and delayed viewer retention, (2) the effects of presenter delivery skill and prestige on viewer perception of presenter proximity, (3) the existence of correlations between viewer retention and post-program perceived proximity, and also between viewer retention and proximity movement during the program.

In order to study the effects of the independent variables on retention and perceived proximity, a two-dimensional factorial design was used.¹ With this design the effects of the independent variables and their interaction could be analyzed. The two independent variables and the sublevels into which each was divided are as follows: (1) prestige, which was divided into high and low; (2) speech delivery, which was divided into good and poor.

The first dependent variable in the experiment was re-

¹E. P. Lindquist, Design and Analysis of Experiments in Psychology and Education (Boston: Houghton Mifflin Company, 1953), pp. 207-215.

tention. Two analyses of retention scores were performed: the first used the immediate post-test retention score as the dependent variable; the second used the delayed post-test retention score as the dependent variable.

The second dependent variable was perceived proximity. This measure was obtained immediately following the program.

The relationship between retention and post-program perceived proximity, as well as the relationship between retention and perceived proximity change during the program, were tested by means of a product-moment correlation coefficient.¹

The two independent variables, prestige and delivery skill, were experimentally manipulated in the production of the kinescope recordings. Four groups of experimental subjects were used with each group exposed to a different combination of these two variables. Figure One on page forty-seven shows the complete design for the experiment.

Apparatus

The measurement of retention

A forty-one-item, completion test was used to measure viewer retention. First, the instrument was used as a pre-test to obtain a measure of the subjects' knowledge of the specific content of the kinescope recordings before they had seen the kinescopes. Second, this instrument was utilized

¹George W. Snedcore, Statistical Methods Applied to Experiments in Agriculture and Biology (Ames, Iowa: Iowa State College Press, 1957), pp. 160-162.

	High Prestige	Low Prestige
Good Delivery	A	C
Poor Delivery	B	D

Fig. 1.-- Experimental Design

in order to obtain a measure of the subjects' knowledge of the specific content of the kinescope recordings immediately following the showing of the kinescopes. Finally, the same instrument was used to obtain the subjects' knowledge of the specific content of the kinescope recordings four weeks following the showing of the kinescopes.

The final scores used to indicate the retention of information from the kinescope recordings immediately following the showing of the kinescopes were obtained by subtracting the pre-test score from the immediate post-test retention score. The final scores used to indicate the retention of information from the kinescope recordings four weeks after the showing of the kinescopes were obtained by subtracting the pre-test score from the delayed post-test score.

The tests were scored on the basis of correct answers; change scores were then used in the analysis of the data. The complete retention test is contained in appendix A on page 108. Inspection of the control group scores, contained in appendix B on page 116, indicated the validity of this instrument.

The measurement of proximity

The proximity score was obtained by comparing the viewer's perception of the presenter with his perception of "the kind of speaker" he would "most like to watch on television." A measuring instrument that indexes the difference between two perceptions of individuals should provide an index of perceived proximity.

A semantic differential, developed by Charles E. Osgood and his associates at the University of Illinois, was used as the instrument for securing the necessary descriptions.¹ Semantic differential measurement is essentially a scaling technique which consists of having subjects record their reactions to a stimulus on a series of scales defined by pairs of polar adjectives with a choice of seven intervals between them. Osgood and his associates have, by means of factor analysis, isolated the factors which account for a significant variance in judgments of connotative meaning. In judgments of personality, five factors account for a sig-

¹Charles E. Osgood, George Suci, and Percy Tannenbaum, The Measurement of Meaning (Urbana, Ill.: University of Illinois Press, 1957), pp. 76-125.

nificant variance: "morality," "volatility," "toughness," "sociability," and "uniqueness."¹ Adjectival scales with high "loadings" on each of these factors are available from Osgood's research. The personality factors were used as the criteria for subjects' perception of the presenter and of their ideal television speaker.

The construction and use of a semantic differential as a measuring instrument is initiated by selecting a series of scales with high loadings on each of the factors to be included. Usually two such scales are chosen for each factor. For this experiment, since both judgments are of personality, only one semantic differential was necessary in order to measure both the presenter and the subjects' ideal. The scales selected for the personality factors were, for morality, moral-immoral, reputable-disreputable; for volatility, emotional-unemotional, excitable-calm; for toughness, soft-hard, tough-tender; for sociability, sociable-unsociable, warm-cool; and for uniqueness, striking-plain, individualistic-ordinary. The form in which the semantic differential was presented to the subjects is shown in appendix A, page 104. The reliability and validity of semantic differentiation as a measurement technique have been demon-

¹Dennis Gene Day, "An Exploration of the Theory of Identification, with an Experimental Investigation of Its Operation in Oral Communication" (unpublished Ph.D. dissertation, University of Illinois, 1961), p. 59. On July 1, 1962, Charles E. Osgood, in a telephone interview with the author, indicated each of these factors to extract between seven and ten per cent of the variance in judgments of personality.

strated by Osgood and his associates.¹

Proximity scores are obtained by comparing a subject's description of one personality with his description of another personality. The "distance" measure (D) proposed by Osgood, Suci, and Tannenbaum was used to make profile comparisons.² Stated simply, it reads that $D = \sqrt{\sum d^2}$ where d is the difference between the factor scores of the two profiles.

Consider a viewer's description of the kind of speaker he most likes to watch on television and his description of the presenter. The scales on the semantic differential are scored from one to seven, thus:

immoral 1 : 2 : 3 : 4 : 5 : 6 : 7 moral

First we obtain the viewer's score on each of the factors for both his description of the ideal and his description of the presenter. The mean score of the scales which represent a particular factor are taken as the factor score. Thus, if a viewer checked the (2) position on the moral-immoral scale and the (3) position on the reputable-disreputable scale, his score on the morality factor would be (2.5). After the scores on each of the factors for both the viewer's description of his ideal and his description of the presenter are obtained, the difference (d) on each of the factors between the description of the ideal and the description of the pre-

¹Op. cit., pp. 126-166.

²Ibid. pp. 90-91.

senter is determined. Each difference is squared and the squares summed. The square root of this sum is the D score. One fact about the D scores should be observed. Since D is based on the difference between profiles, the larger the D the greater is the distance between profiles and, consequently, the less proximity there is between them; a D score of zero would indicate identical profiles or perfect proximity.

Two sets of D scores were obtained: the first during the pre-test, after the subjects had been exposed to the presenter for only twenty-three seconds; and the second during the post-test, after they had viewed the entire fifteen-minute kinescope recording. In this way it was possible to obtain measures of proximity both before and after viewer retention.

Administration of the experiment

The presenter

The basis for training.--The scope and limitations of this study demand that we test only the prestige label and not the inherent personal qualities of any particular expert or non-expert. For this reason it was necessary to obtain an actor with television experience to serve as both the expert and the non-expert. Since the second independent variable was speech delivery, and since we are concerned only with the extremes of good and poor speech delivery, it was necessary for the same actor to perform both good and poor

speech delivery versions of the communication.

Dr. Niel Snortum was employed as the presenter in March, 1961.¹ In preparation for the training of Dr. Snortum, eleven teachers of public speaking at The University of Michigan were asked: "Basing your answers entirely on speech delivery, what qualities are present or absent when you consider a person to be a poor speaker?" From the answers to this question the following list of characteristics of the poor speaker was compiled:

Too slow or rapid rate of speaking

Too high or low pitch of the voice

Lack of vocal variety

Lack of emphasis on important words

Sloppy articulation

Frequent mispronunciation

Lack of enthusiasm

Lack of confidence in the presentation

Unpleasant vocal quality

Unsure, poorly executed, or the lack of gestures

Lack of eye contact

Nervous mannerisms

Lack of facial expression

Using this list as a basis for study, Dr. Snortum learned to present the communication in two ways: as a poor presenter with all of the characteristics described above, and as a

¹Dr. Snortum was then Instructor of Engineering English at The University of Michigan and a frequent performer on university television programs.

good presenter with none of the characteristics in the above list.

Testing the results of the training.--Following the training period it was necessary to ascertain the degree of success achieved for each version of the communication. Therefore, Dr. Snortum appeared, both as a good and a poor speaker, before nine teachers of Speech and eighteen students in the beginning public speaking course at The University of Michigan. The faculty and students were given the following grading scale:

- (1) POOR. He was so poor that he forced me to lose interest in what he was saying. His delivery faults were so extreme that I consider him a poor speaker.
- (2) BELOW AVERAGE. He was not adequate, but still he communicated the material. My mind wandered from what he was saying to the way he said it.
- (3) AVERAGE. He was adequate; I consider him an "average" speaker. He communicated his material but was not perfectly at ease. The presentation could have been more effective.
- (4) GOOD. He was rather effective, but the presentation still had a few rough edges.
- (5) EXCELLENT. He was excellent, very communicative, sincere and interesting--he made his material come alive.

They were then asked: "In general (considering only aspects of speech delivery) how would you rate the speaker's performance?"

The attempted poor speech delivery received an average rating of two, below average, from the nine faculty members and eighteen students. The attempted good speech delivery received an average rating of four, good, from the

faculty and students. A t-test of significance indicated this difference to be significant beyond the one per cent level of confidence. The rating scores and t-test results are shown in appendix B on page 111.

The experimental programs

The script.--A basic experimental requirement of this study was a fifteen-minute communication of an educational, non-controversial nature, presented in the form of a television program. Rather than attempt to create such a communication, it seemed more expedient to utilize the script of an educational television program previously broadcast. The script that was selected was "The Sun Followers," written by Mr. Mack Woodruff of the Television Center at the University of Michigan. The script chronicles American westward expansion from 1803 to 1853 with special emphasis on the Oregon and Santa Fe trails and the concept of Manifest Destiny. The **original** script was thirty minutes in length. In order to complete viewing and testing within a single class hour (as was necessary) the script was cut to fifteen minutes. The complete script appears in appendix A, pages 83 to 98 . The original program "opening" and "closing" were retained, but the majority of visual devices and all voices other than the host were eliminated. Two pictures of individuals were retained for identification purposes during the testing. Those few visual devices that remained were intended only to mask the experimental kinescopes as actual

educational television programs; these elements were not included in the retention testing. As these elements were present in all versions of the kinescopes, they did not become independent variables.

Since one of the independent variables is speaker prestige, and this study is concerned only with the extremes of relative high and low prestige, Dr. Snortum had to be labeled with both extremes of prestige at the beginning and end of each presentation; this was a fairly simple procedure. When he presented the poor-delivery version, he was introduced as "Your host, Niel Snortum." Immediately following his appearance the announcer told the audience, "your host has been Niel Snortum." When Dr. Snortum presented the good-delivery version he was introduced by the announcer as follows:

Your host on today's program is Dr. Niel Snortum, Professor of American History at Harvard University. Professor Snortum, one of America's most distinguished historians, has devoted a lifetime of study to the American west. The results of that study have been published in many books and articles. "The American Westward Movement," his latest book, is recognized as the definitive work on this subject. His articles have appeared in the American Historical Review and the Journal of American History. His professional colleagues have recently honored him with election to the presidency of the Society of American Historians. And now, Professor Snortum.

Immediately following his appearance the announcer told the audience: "Your host on today's program has been the distinguished American historian Dr. Niel Snortum, Professor of American History at Harvard University."

The production of the programs.--The experimental programs were produced on March 31, 1961, at The University of Michigan Television Center. Both good- and poor-delivery versions were recorded in one afternoon. When the films were sent for processing, two prints of each version were requested. Thus it was possible to edit the final kinescopes to the experimental specifications. Two of the prints remained intact as recorded. The introductions and conclusions of the second set of prints were exchanged. In this way the low-prestige introduction and conclusion, in addition to being a part of a poor-delivery version, also became an introduction and conclusion for a good-delivery version. The high-prestige introduction and conclusion, which were a part of the original good-delivery version, were added to the other poor-delivery version. By editing in this way, four finished kinescopes were provided: (1) poor-delivery version with low-prestige introduction and conclusion, (2) good-delivery version with high-prestige introduction and conclusion, (3) poor-delivery version with high-prestige introduction and conclusion, (4) good-delivery version with low-prestige introduction and conclusion. These four kinescopes satisfied the experimental conditions required. Except for the manipulation of the prestige and speech delivery variables they are alike.

Subjects

The experimental design required four experimental groups. It was decided to include an additional control

group in order to ascertain the extent to which the retention test, used three times during the experiment, became a learning experience. Five classroom groups were selected from the required basic speech course at San Diego State College. The only criterion used in the selection of the groups was that their meeting time not conflict with one another, and that they be large enough to suffer the expected maximum attrition rate. Since two of the groups contained a large number of absentees at the first meeting, it was necessary to supplement those groups with additional subjects. Two additional classes were randomly selected to be combined with treatment groups A and D. One of the supplemental classes received the same treatment as did group A, while the other received the same treatment as group D. From the beginning of the testing, then, group A and group D were composed of the original classes plus the supplementary classes.

At the time of the first meeting, the experimental groups ranged in size from twenty-six to fifteen with a median size of twenty-four. At the second meeting, the groups ranged from twenty-five to fourteen with a median size of eighteen. At the time of the third and final meeting, the groups ranged in size from twenty-two to twelve (the control group) with a median size of seventeen. All but one of the experimental groups contained sixteen subjects at the final meeting. In order to equalize the groups, the mean scores of the group of fifteen were added as an extra subject in

that group. One degree of freedom for the subject added was subtracted from the total degrees of freedom.¹ Since the control group is a separate consideration, and not a part of the statistical analysis, it was considered adequate although it contained twelve subjects at the final meeting. A total of 102 people participated in the experiment; seventy-six were used for analysis, sixty-four of these were in the experimental groups, twelve in the control group.

Procedure

The experiment was conducted in March and April of 1963. Three sessions were held with the control group and each experimental group during regular class meeting hours. During the first meeting the experimental groups completed the scales which indicated their perception of the kind of speaker they most like to watch on television. They were then shown the first twenty-three seconds of Dr. Snortum's presentation, following which they completed both the scales indicating their perception of him, and the information-retention test. The same procedure was followed in all four experimental groups:

(1) The 16 mm. motion-picture projector (the same Bell and Howell projector was used throughout the experiment) was set up in the classroom prior to the class meeting time. The screen size and the sound level were controlled to ap-

¹Lindquist, op. cit., p. 148.

proximately the same size and the experimental groups were seated in approximately equal relationship to the screen.

(2) When the class had assembled, the instructor introduced the experimenter. The **experimenter** explained that the class had been selected to take part in an experimental study in educational television and that the things he would like them to do would be indicated on the forms they would use throughout the study. He then distributed the first semantic-differential test booklets and asked the subjects to print their names in the space provided at the top of the page. The experimenter then read aloud the instructions for the use of the booklet. When he finished, he offered to answer any questions regarding the use of the scales; there were no questions.

(3) The subjects then completed the test booklet containing the first set of scales.

(4) The experimenter collected the first set of scales and told the subjects that he would now like them to watch "the following program."

(5) The opening twenty-three seconds of Dr. Snortum's presentation were then shown to the subjects; this segment also included the program "opening" with the introduction of Dr. Snortum. At the end of twenty-three seconds of Dr. Snortum's presentation the projector was stopped.

(6) The experimenter then distributed the second set of scales to the subjects. He explained that the instructions were exactly the same as for the first scales and he

asked if they had any questions; there were none.

(7) The subjects completed the second set of scales and the experimenter collected the forms.

(8) The experimenter distributed the information-retention test and asked the subjects to print their names in the space provided at the top of the page. He then asked the subjects to read the instructions at the bottom of the page. The experimenter offered to answer any questions from the subjects; there were none. The subjects completed the information-retention test.

(9) When the subjects had completed the retention test, the experimenter collected the forms and thanked the subjects for their cooperation.

A different procedure was followed in the control group:

(1) When the class had assembled, the instructor introduced the experimenter. The experimenter explained that the class had been chosen to take part in an experimental study in educational television and that the things he would like them to do would all be indicated on the forms they would use. He then distributed the retention test and asked the subjects to print their names in the space provided at the top of the page. The subjects were then asked to read the instructions and the experimenter offered to answer any questions, there were no questions.

(2) The subjects completed the retention test.

(3) When the subjects had completed the retention test,

the experimenter collected the test booklets and thanked the subjects for their cooperation.

At the second meeting, one week later, the experimenter showed the entire kinescope of "The Sun Followers" to the experimental groups. Subjects completed the scales that indicated their perception of Dr. Snortum, and completed the retention test. The specific procedure used in all four experimental groups was as follows:

(1) The 16mm. motion-picture projector was set up in the classroom prior to the class meeting time.

(2) When the class had assembled, the instructor introduced the experimenter. The experimenter explained that this was to be the second phase of the experiment to which he had introduced them the week before. The experimenter then explained that he would like them to watch "the following program."

(3) The fifteen-minute kinescope recording of "The Sun Followers" was then shown to the subjects.

(4) The experimenter distributed the test booklets which consisted of the semantic differential and the information-retention test. The subjects were asked to print their names in the space provided and to read the instructions carefully, even if they thought they remembered the instructions from the previous phase of the experiment. The experimenter then offered to answer any questions about the instructions; there were none.

(5) The subjects completed the test booklets.

(6) When all the subjects had completed the test booklets, the experimenter collected the booklets and thanked the subjects for their cooperation.

With the control group the procedure for the second session was exactly the same as the first.

At the third meeting, four weeks later, the experimenter conducted the information-retention test only. The same procedure was followed for all experimental groups and the control group:

(1) When the class had assembled, the instructor introduced the experimenter. The experimenter explained that this was the third phase of the experiment in which they were involved.

(2) The experimenter then distributed the test booklets which contained only the information-retention test. The subjects were asked to print their names in the space provided and to read the instructions carefully, even if they thought they remembered the instructions from an earlier phase of the experiment. The experimenter then offered to answer any questions about the instructions; there were none.

(3) The subjects completed the test booklets.

(4) When the subjects had completed the test booklets, the experimenter collected the booklets and thanked the subjects for their cooperation. The complete test booklet used during the three experimental sessions is contained in appendix A, pages 102 through 110.

Analysis of the Data

The analysis of the data was directed toward testing the hypotheses stated on pages thirteen and fourteen. Hypotheses one through four were tested through the utilization of a two-way analysis-of-variance technique.¹ A 2 x 2 matrix of retention and proximity scores was constructed. The experimental design on page forty-seven shows the four cells of the matrix. Two analyses of variance of retention scores were performed, one contained scores obtained from the immediate post-test, the other contained scores obtained from the delayed post-test. Both of these analyses tested the effects of delivery and prestige on retention, as well as the interaction of the independent variables.

The effects of delivery and prestige on proximity, as well as the interaction of these independent variables, were also analyzed by means of a two-way analysis of variance.

The fifth hypothesis was tested by calculating the correlation coefficient between the immediate post-test retention scores and the post-program proximity scores. The sixth hypothesis was tested by calculating the correlation coefficient between the immediate post-test retention scores and the difference between the pre-program proximity scores and the post-program proximity scores. In this way it was possible to test the existence of a relationship between re-

¹Lindquist, op. cit., pp. 203-216.

tention and perceived proximity, as well as the relationship between retention and perceived proximity movement during the program.

Each cell in the four-cell matrix contained three scores: immediate retention, delayed-retention, and perceived-proximity scores. A total of 192 scores was contained in the matrix. The experimental findings are presented in the next chapter.

CHAPTER IV

RESULTS OF THE EXPERIMENT

The analysis of the experimental data was carried out using a two-way analysis-of-variance technique with F tests of significance for each possible source of variation. There were two null hypotheses concerning presenter delivery skill:

(1) Superior presenter speech delivery will produce no significantly higher immediate or delayed retention effects than will inferior speech delivery.

(2) Superior presenter speech delivery will produce no significantly higher degree of viewer-perceived proximity than will inferior speech delivery.

As a result of the two-way analysis of variance, using post-test retention scores as the dependent variable, the first of these hypotheses was rejected. With immediate post-test retention scores as the criterion, good speech delivery produced significantly higher retention effects than did poor speech delivery. Utilizing the F test of significance, the analysis revealed that presenter delivery skill produced an effect significant at the one per cent level of confidence. In addition, there was a significant interaction effect between the independent variables of

presenter delivery skill and level of presenter prestige. The results of the analysis of variance of the immediate post-test retention scores between the two independent variables are presented in Table One.

TABLE 1
ANALYSIS OF THE VARIANCE OF IMMEDIATE POST-TEST RETENTION
SCORES BETWEEN THE VARIABLES OF PRESENTER PRESTIGE
AND PRESENTER DELIVERY SKILL

Source of Variance	df	SS	MS	F	p
Presenter Prestige	1	48.69	48.69	. .	. .
Presenter Delivery Skill	1	110.25	110.25	4.29	.05
Cells	(3)	(356.44)	(118.81)	. .	. .
Presenter Prestige. Delivery Skill	1	197.50	197.50	7.63	.01
Within Cells(w)	59	1516.56	25.70		
Total	62	1873.00			

The first hypothesis was further tested by a second analysis of variance. This analysis was performed using the same independent variables, but substituting the delayed-test retention scores as the dependent variable. In this analysis the hypothesis was again rejected Superior presenter speech delivery produced significantly higher delayed viewer-retention effects than did poor speech delivery.

Utilizing the F test of significance, the analysis revealed that presenter delivery skill produced an effect significant at the one per cent level of confidence. The results of this analysis of variance are presented in Table Two.

TABLE 2
ANALYSIS OF VARIANCE OF DELAYED-TEST RETENTION SCORES
BETWEEN THE VARIABLES OF PRESENTER PRESTIGE
AND PRESENTER DELIVERY SKILL

Source of Variance	df	SS	MS	F	p
Presenter Prestige	1	23.76	23.76	. .	. .
Presenter Delivery Skill	1	118.26	118.26	11.57	.01
Cells	(3)	(155.16)	(51.72)	. .	. .
Presenter Prestige · Delivery Skill	1	13.14	13.14	. .	. .
Within Cells(w)	59	603.07	10.22		
Total	62	758.23			

The second hypothesis was that superior presenter speech delivery would produce no significantly higher degree of viewer-perceived proximity than would inferior speech delivery. This hypothesis, as a result of the two-way analysis of variance, was rejected. The analysis was performed using the post-program perceived-proximity scores as the dependent variable. Using the F test of significance, this

analysis found delivery skill to produce an effect on viewer perception of proximity significant beyond the one per cent level of confidence. The results of this analysis are presented in Table Three.

TABLE 3
ANALYSIS OF VARIANCE OF PERCEIVED PROXIMITY SCORES
BETWEEN THE VARIABLES OF PRESENTER PRESTIGE
AND PRESENTER DELIVERY SKILL

Source of Variance	df	SS	MS	F	p
Presenter Prestige	1	.97	.97	. .	. .
Presenter Delivery Skill	1	112.62	112.62	43.65	.01
Cells	(3)	(114.59)	(38.23)	. .	. .
Presenter Prestige · Delivery Skill	1	1.10	1.10	. .	. .
Within Cells(w)	59	152.10	2.53		
Total	62	266.79			

In summary, presenter delivery skill was found to have an effect significant at the five per cent level of confidence on immediate viewer retention, as revealed by a test of retention immediately following the presenter's performance. Presenter delivery skill was also found to have a significant effect on delayed retention as revealed by a test of retention four weeks following the presenter's per-

formance. This effect was significant at the one per cent level of confidence. In the analysis of the effect of presenter delivery skill on viewer perception of proximity, delivery was found to produce an effect significant beyond the one per cent level of confidence.

The third and fourth hypotheses were concerned with the effects of presenter prestige:

(3) Relatively high presenter prestige will produce no significantly higher immediate- or delayed-retention effects than will relatively low prestige.

(4) Relatively high presenter prestige will produce no significantly higher degree of viewer-perceived proximity than will relatively low prestige.

The third hypothesis was tested twice. The first analysis of variance was carried out utilizing immediate post-test retention scores as the dependent variable and the second analysis was carried out using delayed-test retention scores as the dependent variable. The two-way analysis of variance, in both cases, revealed no significant effects of presenter prestige on viewer retention; the third hypothesis was, therefore, not rejected. The results of these analyses are presented in Table One (page 66) and in Table Two (page 67).

The fourth hypothesis was tested in the same manner as those previously mentioned. Again the two-way analysis of variance failed to indicate a significant effect. Therefore, the fourth hypothesis also was not rejected; presenter

prestige was not found to significantly affect viewer perception of proximity. The results of this analysis are presented in Table Three on page 68.

The finding that no main effect for presenter prestige was observed in either of the analyses rendered suspect the previous assumption that the experimenter had created two significantly different levels of prestige. Since prestige exists only as it is perceived by the viewer, it was decided to create an additional experimental situation to test the assumption that the two introductions had caused the same presenter to produce significantly different prestige levels.

On July 2, 1963, two basic speech classes at The University of Michigan participated in the additional experiment. Each of the classes was divided into two groups. One group viewed the first five minutes of the good-delivery version of the experimental kinescope in which the presenter was introduced as a host. The second group viewed the first five minutes of the good-delivery version of the experimental kinescope in which the presenter was introduced as "Professor of American History at Harvard University."¹

Following the viewing of the kinescopes, both groups completed semantic-differential scales for seven factors, as well as an expert-inexpert scale. Five of the factors used in this part of the experiment were the same as those used to determine an index of the presenter's image earlier.² In

¹Supra, p. 55.

²Supra, p. 49.

addition to these five factors, scales for the evaluative and dynamism factors were also utilized.¹

The results of t-tests of significance between the differences in factor means for the group who had heard the "professor" and the group who had heard the "host" failed to reveal a significant difference as a result of the assumed prestige label. The difference between group means on the expert-inexpert scale for the "professor" and "host" groups was significant at the five per cent level of confidence. The factor mean scores for both the "professor" and "host" groups, together with the t-values are presented in appendix B on page 117.

In summary, an additional experimental situation revealed that although subjects perceived the two prestige labels as significantly different on a unidimensional expert-inexpert scale, they perceived no significant differences in presenter image as a result of the two extrinsic "prestige" labels. Although they perceived him as being "expert," his "expertness" did not produce a perceived image which was any different than that of the host.

The fifth and sixth hypotheses are concerned with the correlation of viewer retention with viewer-perceived proximity of the presenter, and also with viewer-perceived proximity movement during the program:

¹ Kenneth E. Andersen, "An Experimental Study of the Interaction of Artistic and Non-Artistic Ethos in Persuasion" (unpublished Ph.D. dissertation, University of Wisconsin, 1961), pp. 69-76.

(5) There is no significant correlation between viewer retention and viewer-perceived proximity following the program.

(6) There is no significant correlation between viewer retention and viewer-perceived proximity movement during the program.

Both of these hypotheses were tested by means of the Pearson product-moment coefficient of correlation. In testing the fifth hypothesis this analysis revealed a correlation of $(-.14)$. There was an extremely low correlation between viewer post-program perceived proximity and retention scores.

In the test of the sixth hypothesis the analysis revealed a correlation of $(.32)$. There was a rather high correlation between viewer retention scores and perceived proximity movement toward the kind of speaker the viewer most likes to watch on television.

In summary, the analysis of the data indicates that hypotheses one, two, and six were rejected, and that hypotheses three, four, and five were not rejected. Further, additional experimental data reveals an absence of perceived difference in the assumed prestige labels used for the study.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was designed to test experimentally the effects of the prestige and the delivery skill of a single presenter of information on an educational television program. The study arose as a test of the rather consistent policy by producers of educational television programs to select on-camera performers largely, or solely, because they are experts on the subject matter of the program.

Summary

A two-dimensional factorial design was utilized in order to test the main effects and interaction of the independent variables of (1) presenter prestige, and (2) delivery skill. The dependent variables were (1) immediate and delayed viewer retention and (2) perceived proximity of the presenter to the viewer's ideal television speaker.

A forty-one item completion test was employed as a measure of viewer retention. And a D score comparison of semantic-differential profiles for uniqueness, sociability, volatility, toughness, and morality was used to determine viewer-perceived proximity.

In order to control the independent variables, an actor was trained to perform as both a good and a poor speaker.

A t-test of the significance of the differences between designated "good" and "poor" performances as rated by twenty-seven Speech faculty members and students in a beginning speech course at The University of Michigan, indicated that the proposed levels of good and poor speech delivery had been accomplished.

The two versions of a fifteen-minute American History television program were then recorded on kinescope film. In one version the actor, using good speech delivery, was introduced as a Professor of American History at Harvard University, with high professional qualifications. In the second version using poor speech delivery, he was introduced only as a host. Duplicate prints and film editing made it possible to produce four experimental programs, each containing a different combination of the independent variables.

The experiment was conducted using students in the basic speech course at San Diego State College. The showing of the kinescopes was accomplished under approximately equal environmental conditions for each group. The subjects were told only that they had been selected to participate in an experimental study in educational television. An additional experimental situation was required in order to test the extent to which the assumed high and low prestige labels produced different images of the presenter. Students in the basic speech course at The University of Michigan were utilized for this purpose.

A total of sixty-four subjects, sixteen in each of four

experimental treatment groups, yielded the experimental data. A control group of twelve subjects provided a check on the information-retention test. The statistical analysis of the data from the basic experiment was accomplished by means of a two-way analysis of variance and a product-moment correlation coefficient. The data from the supplementary experiment was analyzed using t-tests of significance between the factor means for the "high" and "low" prestige versions. The analyses provided tests for the main and interaction effects of the independent variables, as well as the required correlations.

Conclusions

The findings of this study concern the two independent variables: presenter prestige and speech delivery skill. The speech delivery null hypotheses stated that superior speech delivery would produce no higher immediate- or delayed-retention effects or viewer perception of presenter proximity. All three of these hypotheses were rejected. Superior speech delivery produced significantly higher retention scores than did inferior delivery, both immediately and four weeks following the program. In addition, superior delivery produced feelings that the presenter was in significantly closer proximity to the viewer's ideal television speaker than did inferior delivery.

Since the supplemental experiment indicated that the "professor" and "host" were viewed as being significantly

different in "expertness" only, and not in perceived images, the observed interaction is most likely an interaction of delivery with feelings of "expertness." The two-way analysis of variance indicated that the group who saw the poor-delivery "professor" retained more than the group who saw the poor-delivery "host." Perhaps because they perceived him as an "expert," subjects listened more attentively and thus retained more from both the good- and poor-delivery versions. In the poor-delivery version, being only a "host" may have caused the viewer to lose interest in the presenter as soon as his speech delivery was recognized as "inferior."

We might hypothesize that, given good or poor speech delivery, an "expert" might induce the viewer to be attentive longer and thus produce slightly higher retention effects than a "host." Although none of these effects are significant in themselves, they seem to be operating to produce an interaction significant at the one per cent level of confidence. "Expertness" alone, however, does not seem to be capable of producing significant immediate or delayed retention effects.

Because the retention of the program content is an important goal of educational television, programs must be designed in order to affect viewer retention. We have seen, within the limitations of this experimental study, that a speaker with inferior delivery can produce significantly lower retention than an accomplished speaker. Therefore, of prime consideration in the selection of any person to pre-

sent information on an educational television program should be his ability to communicate effectively to others. A producer who permits the content of his program to be presented by an "inferior" speaker may be defeating the basic purpose of the educational program.

The findings of this study suggest further implications regarding the utilization of performers with superior and inferior speech delivery. The rejection of the second hypothesis indicates that superior speech delivery produces a feeling that the presenter is in closer proximity to the viewer's ideal television speaker than does inferior speech delivery. Because this feeling of perceived proximity is presumed to be an indication of the viewer's disposition to watch, and continue to watch, the presenter, we can consider it to be a partial index of the presenter's success and thus of the success of the program. The television audience is not captive; viewers have no reason to watch a performer who they feel is very unlike the kind of speaker they most like to watch on television. The selection of a poor speaker, then, may not only decrease the amount of information retained from the program, but it might also deny the program its maximum potential audience!

It was assumed, at the outset of this investigation, that the experimenter, patterning his relative "high" and "low" prestige labels after those commonly used by educational broadcasters, had created two significantly different levels of prestige. Since no main effects of the assumed

prestige were revealed by the two-way analysis of variance, this assumption was rendered suspect. A supplementary experiment revealed that although the "Harvard professor" was perceived as being significantly more expert than the "host," the general images of the "two" presenters were not significantly different. Prestige exists only as it is perceived by the viewer. Because the subjects in the supplemental experiment perceived no difference in the images of the assumed prestige- and non-prestige presenters we must conclude that significantly different levels of prestige were not created in the basic experiment.

This finding renders very suspect the use of such "prestige" labels in educational broadcasting, a finding consistent with Highlander's conclusion that television creates its own prestige.¹ On a scripted educational television program, then, there seems to be no advantage in selecting a particular presenter solely because of his professional topic-oriented status and qualifications. The purpose of the program, to inform, will **very likely** be accomplished equally as well with an accomplished performer who has memorized the script, although he can be introduced only as a host.

Considering the results of the two-way analysis of variance, the two tests of correlation revealed results that were not surprising. Since the post-program image of the presenter was based on a combination of the initial image

¹Loc. cit.

and the impact of presenter speech delivery on this image during the program, there was little reason to expect a significant correlation.

The correlation between viewer retention and perceived proximity movement during the program, however, was significant. Because the initial viewer image of the presenter was included in the measure of proximity movement, and because presenter delivery skill presumably produced that movement, it would seem that this correlation should be high.

There is no reason, therefore, to believe that a relationship exists between the amount learned from a television program and the viewer's attitude toward the speaker at the conclusion of the program. The production of favorable attitudes during the program by the speech delivery of the program presenter, however, seemed to bear a strong relationship to the amount of content retained from the program.

In summary, the producer of an educational television program, who seeks to attract an audience and communicate information, should be extremely careful to select an effective communicator to present the information on the program. The procedure of using a subject expert as presenter, in order that he might be introduced as a topic-oriented prestige figure, is highly suspect. The findings of this study indicate that such an introduction is not likely to be capable of producing significant differences in viewer perceptions of presenter prestige. Such introductions, therefore, will

not compensate for poor speech delivery as these variables affect viewer retention and perception of the presenter's image.

Finally, although viewer-attitude shifts toward the presenter during the program bear a relationship to the amount retained from his message, we have no reason to believe, within the limitations of this study, that a relationship exists between viewer retention and viewer perception of the presenter image at the conclusion of the program.

Suggestions for Future Research

The findings of this study suggest a number of areas in which future research is needed.

The most important question arising from this study involves the viewer perception of the prestige level of television performers. The evidence from this study, which is consonant with other research, indicates that topic-oriented, "high-prestige" introductions, currently employed by educational broadcasters, probably are not capable of producing viewer perceptions of the presenter that are any more favorable than the nebulous "host" introduction. Further research should be undertaken to reveal whether or not it is possible to create significantly different relative levels of "high" prestige on television. Specific studies are needed in order to describe the nature of introductions, or presenter labels, that will enable performers, who are

not well-known personalities, to be perceived as higher-prestige sources than the common "host." If such labels can be defined, inquiry should then be directed toward testing the effects of relatively "high" and "neutral" prestige labels on viewer retention, attitudes toward the presenter, and attitudes toward program-related concepts. These effects should be tested in a variety of content areas, over a variety of exposures to the presenter, and with a variety of subjects representative of various segments of the audience for educational television.

The present study has provided evidence that speech delivery is an important factor in determining the degree of viewer retention. Even four weeks following the program, subjects retained more from the good speaker than from the poor one. Studies should be undertaken to test the effects of different factors of speech delivery on retention over a longer period of time following the program.

Many educational television programs are presented as part of series. Does presenter speech delivery continue to be as important in determining retention effects and attitudes toward the presenter if the audience is exposed to the same presenter for a number of weeks? Specific investigations should explore the effects of the delivery skill variable within the context of educational television program series.

The present study was limited to an investigation of a fifteen-minute program on American History. Future re-

search should be directed toward testing the delivery hypotheses using longer program lengths and a variety of content areas.

Additional research is necessary in order to explore the relationship between viewer attitudes toward the presenter and viewer retention. Under what conditions might such a correlation exist? Given these conditions, might it be possible to discover causal relationships in this area?

The present study revealed a significant correlation between increasingly favorable viewer attitudes toward the presenter during the program and viewer retention following the program. Further research should be directed toward an investigation of causality in this relationship.

Finally, the interaction of presenter "prestige" and delivery skill should be investigated further. These studies should employ a variety of content areas and experimental subjects **representative** of various segments of the educational television audience.

APPENDIX A

MATERIALS

I. THE SCRIPT

PIC #1 ROCK CREEK STATION

ANNCR: No other race of men with the means at their command would undertake so great a journey; none save these could successfully perform it with no previous preparation...

PIC #3 SUNFLOWER TRAIL

ANNCR: They have undertaken to perform, with slow moving oxen, a journey of two thousand miles...

PIC # 4-3 INLAND CROSSING

ANNCR: The way lies over trackless wastes, wide and deep rivers, rugged and lofty mountains, and it is beset with hostile savages.

PIC #5 TRAIL SCENE--ECHO CANYON

ANNCR: Yet whether it were a deep river with no tree upon its banks, a rugged defile where even a loose horse could not pass...

PIC #6 TRAIL SCENE--BLUE MOUNTAINS

ANNCR: A hill too steep for him to climb
or a threatened attack of an enemy, they
are always found...

PIC #7 PM TRAIL SCENE;CU HEAD RIDER

...ready and equal to the occasion...

DB TO WIDE SHOT: PM

...and always conquerors. May we not call
them "Men of Destiny?"

MUSIC UP

DIZ TO PM WAGONS ON THE TRAIL

SUP: THE WESTERN WAY

ANNCR: "The Western Way," a program devo-
ted to a study of the American West; the
history of the frontier and the frontier
people as reality and as myth.

MUSIC OUT

SUP: THE SUN FOLLOWERS

ANNCR: Today's program, "The Sun Followers."

SUP: NIEL SNORTUM

OR

SUP: DR. NIEL SNORTUM

ANNCR: Your host, Niel Snortum.

OR

ANNCR: Your host on today's program is Dr.
Niel Snortum, Professor of American Histo-
ry at Harvard University. Professor
Snortum, one of America's most distin-

guished historians, has devoted a lifetime of study to the American West. The results of that study have been published in many books and articles. "The American Westward Movement," his latest book, is recognized as the definitive work on this subject. His articles have appeared in the American Historical Review and the Journal of American History. His professional colleagues have recently honored him with election to the presidency of the Society of American Historians. And now, Professor Snorton.

THROUGH ABOVE DB TO NIEL WITH BOOK
AND ON STOOL--HOLD

CUT TO NIEL ON STOOL

NIEL: In the year 1853, the United States had completed an incredible half century of expansion. The nation needed a word--a dazzling, shining word--for fifty years of phenomenal landgrabbing which had rounded out and permanently fixed the country's national boundaries. The word most frequently found on the national lips was "destiny."

If we take a sweeping look at the republic's territorial growth during this per-

iod, it's hard to question the selection of the word.

It was a label that seemed to sum up all the cocky self-confidence and patriotic belligerence of a nation which had set out to master a wild continent, thoroughly convinced that the hand of God, the whims of nature and the blessings of providence were all on its side.

In 1800, after two centuries of slow but steady frontier progress, the nation's western boundary fronted the Mississippi River. At this time, with an almost rhythmic chronological beat, the march of destiny begins.

1803...Jefferson purchases Louisiana Territory from France.

1812 to 1815...America fights and wins a bitter war with England, and in 1818... England gives up her mid-continental possessions below the 49th parallel.

1821...Spain cedes Florida after three years of bickering.

1835...American colonists in Texas pro-

claim their independence from Mexican rule, and in 1845 the Free State of Texas becomes part of the union.

1846 to 1848: War with Mexico. After a series of brilliant and crushing victories, the United States gains undisputed control of the Southwest from Texas to the California coast.

1846...the ancient Oregon country dispute with Great Britain is settled fairly and without bloodshed, along the compromise line of the 49th parallel.

1853...the incredible half century of expansion comes to an end with the Gadsen purchase of a parcel of land in the southwest from Mexico. Yankee conniving, fighting and sharp purchasing...have gained a continent and shaped the boundaries which we know today.

A fantastic period. In fifty years a small republic triples its size and adds more than two million miles of territory.

Expansion has become a heady tune for the national chorus. The general voice of the people sings its praises; and for America's

great writers, statesmen, and thinkers, this ebullient, expansive republic seemed to be the perfect fulfillment of Benjamin Franklin's dream; an America which would "flourish...amazingly and rapidly...like a field of young Indian corn..." It seemed to be a testimony to the accuracy of the 18th century European theory of succession of empires, popularized by the English philosopher...

PIC #10 BERKELEY

Bishop George Berkeley. In 1752 Berkeley said: "Westward the course of empire takes its way

The four first acts already past

A fifth shall close the drama with the day;

Time's noblest offspring is the last.

NIEL

"Westward the course of empire takes its way." Berkeley is telling us that it is in the nature of empires to rise and fall and to move westward, each new empire gaining a higher level of achievement than its predecessor. Now it was the turn for America--"Time's noblest offspring" to achieve the highest level of all. This

was a very flattering theory for Americans, but the theory also held a flaw--or at least a warning for the young republic: If it is in the nature of empires to rise and fall, how is the United States to avoid this final, inevitable collapse?

The answer? Destiny. Or more specifically in the words of John Louis O'Sullivan...

PIC #15 O'SULLIVAN

the New York newspaper man who coined the phrase in 1845: "Manifest Destiny."

O'Sullivan wrote..."Our manifest destiny is to overspread and to possess the whole of the continent which Providence has given us for the development of the great experiment of liberty and federated self-government entrusted to us."

NIEL

"Manifest Destiny;" a powerful message. It seems powerful enough to make a body dash out and buy a wagon and a team of oxen. A healthy message surely; there can be no harm in giving people a vision of a better, more secure, more peaceful life. But in some aspects, it was an unhealthy message too. Manifest Destiny could be--and was--used by unscrupulous men as a

tool; a means for condoning excesses; an excuse for the ruthless theft of Indian land, for war-mongering, for flagrant racial discrimination and lawless exploitation.

Healthy or unhealthy, spiritual or political, Manifest Destiny provided the 19th century with one of its most popular means for interpreting frontier history. It's important to us because it is one of the most effective myth-making devices ever developed--and quite unconsciously--by a nation to glamorize its program.

It is a master myth; it can incorporate thousands of different frontier people, involved in many, very different ways of life; it gives all of these people the singular mission of expansion and stamps them all with the seal of Manifest Destiny. It gives them everything except meaning and significance and the real reasons for going west.

A man in Missouri looked at his small, muddy field and he thought to himself: "Out in Oregon I can get me a square mile of land and a quarter section for each of

my brothers" and he was "done with Missouri."

And a settler's wife heard stories about the fantastic west and she said to herself, the trip would be hard, maybe impossible, but "Oregon must be a wonderful place."

And a miner in Kentucky had heard stories, but he didn't believe them: If he only picked up a hat full of gold a day he'd be perfectly satisfied.

These are real reasons...economic pressure on the farmer, half fearful romantic attraction for the settler's wife, incredible gullibility for the miner...good reasons, fool reasons, but all of them human, and none of them sponsored by Manifest Destiny.

The record reminds us that the early settlers and traders didn't rush across America. They followed two winding trails which totaled 2,775 of the slowest and cruelest miles the nation had to offer.

Beginning at the town of Independence on the Missouri River, both trails moved to-

gether for a short distance, then diverged. The Old Sante Fe Trail moved southwest to the Spanish-Mexican provinces. This was the road of the Yankee trader who sought the Mexican gold and silver, livestock and furs.

The northern trail was the settler's road to Oregon. The traders went 775 miles for profit, the settlers went 2,000 miles for permanent homes and a better life, but the trails they followed provided the immediate avenues for the nation's expansion through war and purchase, and the subsequent foundation for total settlement and development.

The route of the Santa Fe Trail was pieced together from the erratic wanderings of early explorers and mountain men.

During the years of Spanish occupation, the trade was precarious, subject to the lightning raids of the desert tribes... and the mercurial whims of hostile Spanish governors. Traders carried their trade goods on pack animals, and arrived at Santa Fe never knowing whether they were going to do a thriving business or have their goods con-

fascated and get tossed in jail. The prairie commerce came into its own after 1821 when Mexico won its independence from Spain and lifted restrictions on trade.

In 1832 a trader named Becknell used wagons on the trail for the first time, and during the next two decades the trade flourished. Caravans of more than a hundred wagons, loaded with drygoods and hardware, stretched out for a mile across the plains. A bristling efficient armada, capable of withstanding any Indian attack, the caravan crawled along at a rate of fifteen miles a day.

The average company was made up of men from every level of society. Merchants, freighters, muleskinners, bullwhackers, tourists and health seekers. Men who wouldn't travel a mile unless it meant a profit, and men who would travel 300 miles for the swirl of a Mexican dancer's skirt.

The Santa Fe Trail was the first great trail to the west: the Yankee merchant's two-way trail for international trade. For American expansionists, the trail led like an arrow to the goal of war with Mex-

ico. Subsequently, as southwest populations increased, the trail served as a vital spine, supporting waves of settlement and explorations until the coming of the railroad after the Civil War.

The character of the Oregon Trail, like the Santa Fe, was determined by the traffic it carried. But it was a one-way trail, beaten deeper and deeper into the earth by more than a half century of wagon travel. The wagons carried household goods and the families of Yankee settlers seeking new homes and the rich farm lands beyond the Rockies.

The great period of movement on the Oregon Trail did not begin until the early 1840's. But long before this time, it was known to explorers, mountain men, adventurers and missionaries. By 1836 the entire route had been traversed by foot, hoof and wagon. The Oregon road was ready for the settlers.

NIEL WALKS TO WAGON MODEL

The migrations of the settlers on the Oregon Trail have been made the subject of maudlin sentimentality and extravagant ro-

mance. Many writers have overemphasised terrors and hardships of trail travel, giving the settlers a sublime heroic stature, others have treated the trek as little more than a picnic, an exhilarating sightseeing tour. The truth would seem to lie somewhere between the two extremes; certainly it was no picnic.

NIEL RETURNS TO STOOL

Preparation meant joining a company that was well organized, well led, and large enough to defend itself against the standard trail hazards: windstorms, rainstorms, buffalo stampedes, Indian scares, flooded rivers.

There were things against which there was no protection--the cholera epidemics of 1849, '50 and '52 took a frightful toll, but by far the largest share of tragedies could be traced directly to an act of carelessness or foolhardiness.

PIC #54 STRAGGLERS UNDER ATTACK

The stragglers for whom the Sioux laid in wait...

PIC #55 DESERT DEATH

the short cut takers who left the trains and struck out on their own, they left

their bones in the mountains and on the deserts. There were many of them.

PIC #56 OXEN DEATH

The settler who did not provide proper care for his oxen...

PIC #57 BROKEN WAGON

the others who tried to save money, cutting corners on wagon equipment and adequate supplies.

PIC #58 WHEEL AND CROSSES

It was these foolhardy emigrants who found the disaster they courted; their tragic experiences fill the records of the western movement.

PIC #59 WAGON WHEEL TRACKS

But the thousands who prepared--or were just lucky--plodded and suffered and wore a deep track across the prairies and the hills from the Missouri to the Pacific.

NIEL ON STOOL

By 1852, it is estimated that 100,000 people had gone overland along the western trails to Oregon and California. Manifest Destiny didn't send these people, nor did the national will. These played a part, but always, at the base, there were practical reasons: The panic and depression

of 1837 sent thousands to Oregon; religious persecution sent Brigham Young and the Mormons to Salt Lake City in 1847; the discovery of gold lured hoards of fortune seekers to California in 1849. The opportunity of better land and social equality was a strong attraction for the poor settler. He went without guarantee, and not infrequently found himself no better off when he got there. The Missouri farmer whose wheat crops were washed out by Old Muddy found that his potato crops could be washed out just as easily by the Willamette, but he went.

He and thousands like him went two thousand miles for two thousand different reasons. Herein lie the real roots for Manifest Destiny, national expansion and the growth of a great nation. The American nation was built by the frontier people on the sunset trails. The people followed the sun, and the nation followed the people.

BLACK

MUSIC

DIZ TO PM WAGONS ON THE TRAIL

SUP: THE WESTERN WAY

ANNCR: "The Western Way," a program devoted to a study of the American West; the history of the frontier and the frontier people as reality and as myth.

SUP: NIEL SNORTUM

OR

SUP: DR. NIEL SNORTUM

ANNCR: Your host on today's program was Niel Snortum.

OR

ANNCR: Your host on today's program has been the distinguished American historian Dr. Niel Snortum, Professor of American History at Harvard University.

FADE TO BLACK

II. INSTRUCTIONS FOR THE BASIC EXPERIMENT

Pre-Test

This class has been chosen to take part in an experimental study in educational television. The things we would like you to do are all indicated on the forms we will use.

DISTRIBUTE SEMANTIC DIFFERENTIAL FORM 1

Please don't turn these forms over until you are told to do so.

COMPLETE DISTRIBUTION OF SEMANTIC DIFFERENTIAL FORM 1

Turn the forms over and print your name in the space provided. When you have done that, turn the page to the instructions--it should be valuable to read these together.

READ THE INSTRUCTIONS ALOUD

Are there any questions?

Would you turn the page and begin please.

ALLOW TWO MINUTES

Is there anyone who is not finished?

COLLECT SEMANTIC DIFFERENTIAL FORM 1

Now we would like you to watch the following program.

ROLL FILM FROM BLACK CUE. STOP AT "NATIONAL BOUNDARIES" (23 SECONDS AFTER HOST BEGINS). DISTRIBUTE SEMANTIC DIFFERENTIAL FORM 2

Please print your name on the front page of this form, then turn the page and begin work.

ALLOW TWO MINUTES

Is there anyone who is not finished?

COLLECT SEMANTIC DIFFERENTIAL FORM 2

DISTRIBUTE INFORMATION-RETENTION TEST

Please do not turn these forms over until you are given the signal to do so.

COMPLETE DISTRIBUTION OF INFORMATION-RETENTION TEST

Would you turn these forms over and print your name in the space provided. Read the instructions and then begin.

ALLOW THIRTY MINUTES. GIVE WARNING WHEN TWO MINUTES REMAIN.

Would you please stop work. Check to be sure your name is on the front and pass the booklet to the aisle.

COLLECT INFORMATION-RETENTION TEST

Thank you for your cooperation and attention.

Immediate Post-Test

Today we will complete the second phase of the experiment we began earlier. First today, we would like you to watch the following program.

ROLL FILM FROM BLACK CUE. SHOW COMPLETE FILM (15 MIN.)

DISTRIBUTE TEST BOOKLETS: SEMANTIC DIFFERENTIAL FORM 2 AND INFORMATION-RETENTION TEST

Please do not turn these forms over until you are given the signal to do so.

COMPLETE DISTRIBUTION OF TEST BOOKLETS

Turn the forms over and print your name in the space provided. When you have done that, turn the page and read the instructions carefully. Read all of the instructions,

even if you feel that you remember them from an earlier reading. After you have completed the scales carefully read the instructions that follow and continue with the booklet. Are there any questions? Would you please turn the page and begin.

ALLOW THIRTY MINUTES. GIVE WARNING WHEN TWO MINUTES REMAIN

Would you please stop work and pass the booklets to the aisle.

COLLECT TEST BOOKLETS

Thank you for your cooperation and attention.

Delayed-Test

Today we will complete the third phase of the experiment in which we have been involved.

DISTRIBUTE INFORMATION-RETENTION TEST

Please leave these forms face down on your desk.

COMPLETE DISTRIBUTION OF INFORMATION-RETENTION TEST

Please turn these forms over and print your name in the space provided. Read the instructions carefully, even if you feel you remember them from a previous reading. Are there any questions? Would you turn the page and begin please.

ALLOW THIRTY MINUTES. GIVE WARNING WHEN TWO MINUTES REMAIN.

Would you please pass the test booklets to the aisle.

COLLECT TEST BOOKLETS

Thank you for your cooperation and attention.

III. INSTRUCTIONS FOR THE USE OF THE SEMANTIC DIFFERENTIAL IN THE BASIC AND SUPPLEMENTAL EXPERIMENTS

In this study you are asked to make a number of judgments on a set of scales by placing a check-mark in one of the seven spaces between two words.

Each space represents how well the adjective fits the person you are describing, as if it were written:

Moral _____ : _____ : _____ : _____ : _____ : _____ : _____ Immoral
very quite slight-ly slight-ly quite very
moral moral ly immoral immoral

neither
moral
nor
immoral

Here is how you are to use these scales:

If you would describe the person as very closely related to one end of the scale you should place your checkmark in one of the end spaces, for example:

Moral X: : : : : : : Immoral

If you would describe the person as quite closely related to one side of the scale you should place a checkmark in one of the spaces second from the appropriate end, for example:

Moral _____: _____: _____: _____: _____: X: _____ Immoral

If you would describe the person as only slightly related to one side of the scale as opposed to the other side you should place a check-mark in the space next to the middle space, for example:

Moral _____ : _____ : X : _____ : _____ : _____ : Immoral

If you feel that the person is equally unrelated to either side of the scale, or if you feel the scale is completely irrelevant, you should place your check-mark in the middle space, like this:

Moral _____ : _____ : _____ : X : _____ : _____ : _____ Immoral

Some other important points to remember when filling out the scales:

1. Never put more than one check-mark on a single scale.
2. Be sure you check every scale--DO NOT OMIT ANY.

IV. BASIC EXPERIMENT: SEMANTIC DIFFERENTIAL FORMS

Form 1

Describe the kind of speaker you most like
to watch on television.

unemotional__ : __ : __ : __ : __ : __ : __ emotional

soft__ : __ : __ : __ : __ : __ : __ hard

cool__ : __ : __ : __ : __ : __ : __ warm

striking__ : __ : __ : __ : __ : __ : __ plain

disreputable__ : __ : __ : __ : __ : __ : __ reputable

excitable__ : __ : __ : __ : __ : __ : __ calm

tough__ : __ : __ : __ : __ : __ : __ tender

sociable__ : __ : __ : __ : __ : __ : __ unsociable

ordinary__ : __ : __ : __ : __ : __ : __ individualistic

moral__ : __ : __ : __ : __ : __ : __ immoral

IV. BASIC EXPERIMENT: SEMANTIC DIFFERENTIAL FORMS

Form 2

Describe the speaker you have just seen.

unemotional___:___:___:___:___:___:___emotional

soft___:___:___:___:___:___:___hard

cool___:___:___:___:___:___:___warm

striking___:___:___:___:___:___:___plain

disreputable___:___:___:___:___:___:___reputable

excitable___:___:___:___:___:___:___calm

tough___:___:___:___:___:___:___tender

sociable___:___:___:___:___:___:___unsociable

ordinary___:___:___:___:___:___:___individualistic

moral___:___:___:___:___:___:___immoral

V. SUPPLEMENTAL EXPERIMENT · SEMANTIC DIFFERENTIAL FORM

Describe the speaker you have just seen.

fair___:___:___:___:___:___:___unfair

reasonable___:___:___:___:___:___:___unreasonable

dishonest___:___:___:___:___:___:___honest

unsympathetic___:___:___:___:___:___:___sympathetic

aggressive___:___:___:___:___:___:___non-aggressive

uninteresting___:___:___:___:___:___:___interesting

active___:___:___:___:___:___:___passive

good___:___:___:___:___:___:___bad

fast___:___:___:___:___:___:___slow

weak___:___:___:___:___:___:___strong

expert___:___:___:___:___:___:___inexpert

unemotional___:___:___:___:___:___:___emotional

soft___:___:___:___:___:___:___hard

cool___:___:___:___:___:___:___warm

striking___:___:___:___:___:___:___plain

disreputable___:___:___:___:___:___:___reputable

excitable___:___:___:___:___:___:___calm

tough___:___:___:___:___:___:___tender

sociable___:___:___:___:___:___:___unsociable

ordinary___:___:___:___:___:___:___individualistic

moral___:___:___:___:___:___:___immoral

VI. BASIC EXPERIMENT: RETENTION TEST

Instructions

Print your answer to each question in the space provided. If you do not know the answer to a question, leave it blank and go on to the next question. You have thirty minutes. Work quickly. If you have time after trying all the questions, you may go back to fill-in or change answers.

1. America completed a half century of expansion and fixed the continental national boundaries in the year_____.
2. By 1800 there had been_____years of slow but steady frontier progress.
3. Jefferson purchased the Louisiana Territory from France in the year_____.
4. The war of 1812 ended in the year_____.
5. How did Florida become a part of the union?_____.
6. Texas became a part of the union in the year_____.
7. What event between 1846 and 1848 gave the United States undisputed control of the southwest from Texas to the California coast?_____.
8. With what country did America engage in the Oregon dispute_____.
9. From what country did the United States obtain the Gadsen Purchase?_____.
10. How was the Oregon dispute settled?_____.
11. What was Benjamin Franklin's dream for the young American republic?_____.
12. What was the 18th century theory of succession of empires?_____.
13. (LOOK AT PICTURE X) Who was this man?_____.
14. (LOOK AT PICTURE X) What did this man say in 1752?_____.

15. (LOOK AT PICTURE Y) Who was this man?_____.
16. (LOOK AT PICTURE Y) What was this man's vocation?_____
_____.
17. Why did the United States develop the concept of "Manifest Destiny"?_____.
18. Together the Oregon and Santa Fe trails totaled_____
_____miles.
19. In what city and state did the Oregon Trail begin?_____
_____.
20. In what city and state did the Santa Fe Trail begin?_____
_____.
21. What provinces formed the general terminus of the Santa Fe Trail?_____.
22. How long was the Oregon Trail?_____.
23. How long was the Santa Fe Trail?_____.
24. In general, what was the vocation of the people who traveled the Oregon Trail?_____.
25. For what two reasons was trade precarious on the Santa Fe Trail? A._____
B._____.
26. In general, what singular means did the traders use to carry their goods on the Santa Fe Trail before 1882?_____
_____.
27. What innovation was introduced on the Santa Fe Trail in 1882?_____.
28. Who introduced the innovation of 1882 on the Santa Fe Trail?_____.
29. In what year did Mexico lift trade restrictions?_____
_____.
30. In what year did Mexico win its independence from Spain?_____.
31. How many wagons were included in a caravan?_____
_____.
32. How far did a caravan stretch out across the plains?_____
_____.
33. How fast did the caravans travel?_____.

34. Until what event was the Santa Fe Trail extensively used? _____.

35. During what part of what decade did the great period of movement on the Oregon Trail begin? _____.

36. How did writers give the travelers on the Oregon Trail a sublime, heroic stature? _____.

37. What epidemic took a frightful toll in 1849, 1850, and 1852? _____.

38. The largest share of tragedies on the Oregon and Santa Fe trails could be traced directly to _____.

39. By 1852, how many people had gone overland along the Oregon and Santa Fe trails to Oregon and California? _____.

40. What events of 1837 sent thousands to Oregon? _____.

APPENDIX B
ADDITIONAL TABLES OF EXPERIMENTAL DATA

TABLE 4
RATINGS OF ATTEMPTED GOOD AND POOR SPEECH DELIVERY

Subjects	Attempted Good Delivery	Attempted Poor Delivery
1	4	1
2	4	2
3	4	2
4	4	2
5	4	2
6	5	2
7	5	2
8	5	2
9	5	2
10	5	1
11	5	1
12	5	1
13	5	1
14	5	2
15	4	2
16	4	2
17	4	2
18	4	2
19	4	2
20	4	2
21	4	2
22	4	2
23	4	3
24	4	3
25	3	3
26	2	3
27	2	3
Sum	111	54
Mean	4.11	2
SS	473	118
t = 10.809		
p = .01+		

1 = Poor; 2 = Below Avg.; 3 = Avg.; 4 = Good; 5 = Excellent.

TABLE 5
DATA, GROUP A, HIGH PRESTIGE, GOOD DELIVERY

Subjects	Post-Program Perceived Proximity	Perceived Proximity Movement	Immediate Retention Score	Delayed Retention Score
1	1.94	+.35	17	10
2	3.00	-1.78	6	4
3	1.41	+.88	17	13
4	3.55	-.31	18	9
5	2.12	+2.62	9	5
6	2.35	-.48	21	6
7	2.00	-.42	12	8
8	2.96	+2.56	21	14
9	2.92	-1.80	15	10
10	4.18	-.06	11	9
11	1.22	+.72	12	10
12	3.54	-.30	18	7
13	1.94	-.72	13	11
14	3.24	-.50	20	9
15	3.24	+2.66	5	3
16	2.12	+2.73	9	5
Sum	41.73	. .	224	133
Mean	2.61	. .	14	8.312
SS	119.40	. .	3534	1253

TABLE 6
DATA, GROUP B, HIGH PRESTIGE, POOR DELIVERY

Subjects	Post-Program Perceived Proximity	Perceived Proximity Movement	Immediate Retention Score	Delayed Retention Score
1	5.70	-3.97	7	9
2	8.96	-1.26	7	6
3	6.88	-.69	14	6
4	2.06	+.59	9	4
5	3.71	-.88	15	5
6	7.06	-1.33	7	1
7	5.87	-.65	9	3
8	9.14	-.85	17	7
9	2.83	+1.39	15	4
10	5.22	-.37	2	2
11	1.94	+.12	9	0
12	2.18	+.78	14	9
13	4.53	+1.34	8	0
14	6.15	-2.69	21	10
15	7.71	-1.23	13	2
16	9.14	-.85	17	7
Sum	89.08	. .	184	208
Mean	5.57	. .	11.5	6.5
SS	591.05	. .	2488	1760

TABLE 7
DATA, GROUP C, LOW PRESTIGE, GOOD DELIVERY

Subjects	Post-Program Perceived Proximity	Perceived Proximity Movement	Immediate Retention Score	Delayed Retention Score
1	1.87	+2.07	15	7
2	4.16	+1.08	10	5
3	2.55	-.37	22	11
4	2.96	-.56	13	4
5	3.94	-1.25	20	10
6	1.22	+1.36	12	5
7	3.08	-.53	6	0
8	2.78	-.09	12	4
9	3.29	+.42	11	6
10	2.96	+3.04	8	3
11	2.24	+.36	9	5
12	1.00	+.66	17	7
13	2.96	+.43	8	4
14	3.08	-.90	7	9
15	1.94	+.56	17	13
16	2.67	+.42	12	6.2
Sum	42.70	• •	199	99
Mean	2.67	• •	12.437	6.187
SS	125.04	• •	2803	773

TABLE 8

DATA, GROUP D, LOW PRESTIGE, POOR DELIVERY

Subjects	Post-Program Perceived Proximity	Perceived Proximity Movement	Immediate Retention Score	Delayed Retention Score
1	7.96	-1.61	10	4
2	4.18	+.38	13	4
3	5.81	-.47	14	5
4	4.64	0	20	9
5	2.74	-1.52	10	4
6	6.43	-2.78	3	2
7	4.93	-1.32	20	11
8	4.22	-1.44	2	0
9	5.00	-1.46	6	4
10	7.91	+.77	6	1
11	5.18	-1.89	1	3
12	5.37	+.63	13	5
13	5.57	-.35	15	6
14	2.92	+.66	9	4
15	3.29	+1.93	6	8
16	4.10	-1.70	2	0
Sum	122.95	• •	155	70
Mean	3.84	• •	10.312	4.445
SS	562.55	• •	2121	446

TABLE 9
DATA, GROUP E, CONTROL

Subjects	Pre-Test Score	Post-Test Score	Delayed-Test Score
1	3	2	2
2	1	2	1
3	2	3	2
4	0	1	1
5	6	6	3
6	4	4	4
7	3	2	2
8	5	6	4
9	4	5	7
10	5	5	4
11	9	11	13
12	5	2	7
Mean	3.92	4.08	4.17

TABLE 10

DATA, SUPPLEMENTAL EXPERIMENT, DIFFERENCES IN SEMANTIC
DIFFERENTIAL FACTORS FOR PRESUMED HIGH AND LOW
PRESTIGE LABELS (BY T-TEST)

Factor	"Professor" Mean	"Host" Mean	t	p
Evaluative	5.6954	5.5090	.843	. .
Dynamism	5.5272	5.5181	.037	. .
Uniqueness	5.3181	4.9090	.945	. .
Sociability	4.8636	4.9545	.250	. .
Toughness	3.1363	3.6363	1.992	. .
Volatility	3.6590	3.6818	.011	. .
Morality	5.2727	4.7045	1.677	. .
Expert-Inexpert	6.0909	5.5000	2.202	.05

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