

## ABSTRACT

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  INFLUENCE OF SOURCE CHARACTERISTICS ON  
  PERSUASION

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The purpose of this research was to investigate the effects of mode of presentation on the way in which the source characteristics of likability and expertise influence persuasion. In the context of a study of memory for ads, female college students received an advertisement for a cellular phone, either by audio tape or in writing, after having received information in writing indicating the source had positive or negative valence with respect to likability or with respect to expertise. After exposure to the advertisement, participants indicated their attitude toward the product, rated characteristics of the source, and answered a memory test. It was found that differences in likability of the source had greater impact on persuasion when the message was presented in an audio format than written format, and differences in expertise of the source had greater impact on persuasion when the message was presented in a written format than audio format.

EFFECTS OF MODE OF PRESENTATION ON THE INFLUENCE OF SOURCE  
CHARACTERISTICS ON PERSUASION

By

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## Dedication

I would like to dedicate my doctoral dissertation to my parents James and Patricia Hyman, who taught me the importance of determination and perseverance. Without their direction I would not have met success in this endeavor.

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I would like to thank Dr. Judson Mills whose extensive wisdom and dedication to my success has made me a better scientist and a more disciplined intellectual. Thank you for passing the torch.

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EFFECTS OF MODE OF PRESENTATION ON THE INFLUENCE OF SOURCE  
CHARACTERISTICS ON PERSUASION

## Chapter I: Introduction

The purpose of this research was to investigate the effects of mode of presentation on the way in which the source characteristics of likability and expertise influence persuasion. Before considering these variables in conjunction, the literature on each variable will be reviewed separately.

### *Source Likability*

The source characteristic of likability includes physical attractiveness as well as other features such as perceived liking for the audience. The effect on persuasion of the source characteristic of likability is a topic that has been studied for a number of years.

In a study by Mills and Aronson (1965) a female communicator was made to look either very attractive or less attractive. She indicated to male audiences either that she wanted people to agree with her or that she did not care if people agreed with her. Persuasion was greater when the likable communicator expressed an overt desire to persuade than when she did not.

Mills (1966) investigated the audience's perceptions of communicator's liking or disliking for the audience on how the perception of a desire to persuade affects opinion change. College students read a transcript from an interview with a male communicator who said that he either liked college students or disliked college students and then said that he either wanted to influence students or that he did not care whether he influenced students. When the communicator liked the audience, the



audience was more persuaded when the communicator said he wanted to persuade them than when he said he did not care if they were persuaded. When the communicator disliked the audience, the audience agreed with him less when he said that he wanted to persuade them than when he said he did not care if they were persuaded.

Mills and Harvey (1972) investigated the effectiveness of likable non-expert communicators versus non-likable expert communicators. Their study varied whether the source information was given before or after the message. It was found that the non-likable expert communicator was more persuasive when the source information was given before the message than when the source information was given after the message. The likable non-expert communicator was equally persuasive when the source information was given before the message or after the message. When the source information was given before the message, the likable non-expert communicator and the non-likable expert communicator were equally persuasive. However, when the source information was given after the message, the likable non-expert communicator was more persuasive than the non-likable expert communicator.

A study by Norman (1976) examined the persuasiveness of a likable non-expert communicator versus a non-likable expert communicator varying the number of arguments in the message (either six or zero). Norman found that the non-likable expert was more persuasive with six arguments than with zero arguments and the likable non-expert was just as persuasive with zero arguments as with six arguments. When the message had six arguments, the likable non-expert was less persuasive than the non-likable expert. But when there were zero arguments in the message, the likable non-expert was more persuasive than the non-likable expert communicator.

This experiment supports the idea that the persuasiveness of a likable source does not depend on message arguments.

### *Source Expertise*

The expertise (or competence) of a particular source is frequently discussed as source credibility. However, the construct of credibility not only includes perceived competence but also perceived sincerity and objectivity. In the current research the focus is on source expertise, not the more general concept of credibility. Expertise is a source variable that, by itself, has been known to increase persuasion.

In a study by Miller, Maruyama, Beaver, and Valone (1976) participants received an audio message about the dangers of caffeine. Participants were informed that the source of the message was either a locksmith or a biochemist, which varied the perceived competence of the source. The researchers also manipulated the pace of the message, either fast or slow. It was found that the biochemist was more persuasive than the locksmith, irregardless of pace, because he was perceived as being more knowledgeable on the topic. It was also found that when the pace of the message was fast, the audience was more persuaded by the message than when the message was delivered at a slower pace. The audience perceived the source as more knowledgeable when he spoke at a faster pace, which occurred for both the locksmith and the biochemist.

An experiment by Petty, Cacioppo, and Goldman (1981) manipulated personal relevance, strength of message arguments, and source expertise. Participants were told that the policy of comprehensive exams for seniors, which was the topic of the message, would take place the following year (high involvement) or in 10 years (low involvement). Expertise was manipulated by informing the audience that the

message (which advocated comprehensive exams) was prepared by either a high school class or the “Carnegie Commission on Higher Education.” The message with strong arguments was based on persuasive evidence (statistics, data, etc.) while the message with weak arguments relied on quotes and personal opinions. It was found that when personal relevance was low rather than high, attitudes were influenced by the information given about source expertise instead of argument quality, but when personal relevance was high rather than low, attitudes were influenced by argument quality instead of the information about source expertise.

An experiment by Maddux and Rogers (1980) manipulated source expertise, source likability, and message arguments. Participants received a packet of material that included a picture of an likable or unlikable young male, a paragraph describing the source as either expert on the topic of sleep (a doctor of physiological psychology described as, “one of the world’s foremost authorities on sleep and sleep research”) or non-expert on the topic of sleep (a doctor of Music described as, “one of the world’s foremost authorities on music during the Baroque period.”) Also included in the packet was a statement of opinion on how much sleep people need or a statement of opinion on the same topic accompanied by 4 arguments supporting that position. Measures of agreement with the message and perceptions of characteristics of the source were also included in the packet. It was found that the expert source was more persuasive than the inexperienced source. The expert source, and also the inexperienced source, was more persuasive when they gave arguments than when they did not give arguments with their position. The manipulation of source likability did not produce any differences in persuasion.

### *Mode of Presentation*

Mode of presentation refers to the format in which the message is presented (i.e. written, audio, or video). Studies investigating mode of presentation, also referred to as communication modality, have yielded mostly conflicting and inconsistent results.

Some studies have found that video messages are more persuasive than audio messages (Frandsen, 1963) and also that video or audio messages are more persuasive than written messages. In a study by Wilke in 1934, participants were separated into groups of twelve and exposed to a message that was either pro-birth control, pro-pacifistic, pro-atheistic, or in favor of a radical redistribution of wealth to favor the poor at the expense of the rich. The messages were either delivered by the writer to the group (visual and audio condition), listened to over a loudspeaker (audio only condition), or given in a written transcript of the message (written condition). Wilke found that the speech condition caused more attitude change than the audio only condition and both conditions caused more attitude change than did the written condition. It may be the case, as Keating (1972) argues, that video is more involving than audio, and audio is more involving than written communications, because there is more information, such as vocal tones and non-verbal cues, in the video format than in the audio format, and even less in the written format.

A number of studies which investigated mode of presentation have found that messages in written format are more persuasive than messages in audio format. In a field experiment by Werner (1978) participants were contacted about participating in a paid psychology experiment and given a message about the benefits of participation in one of three ways, either face-to-face, by a mailed letter (written), or over the

telephone (audio). Persuasion was measured using two behavioral measures: participants' initial decision to participate in the experiment and whether the participant contacted the experimenter using the campus extension which was provided in the message. It was found that letters did not differ from face-to-face contacts, but telephone calls were less effective in inducing compliance.

A study by McGinnies (1965) conducted at a university in Tokyo, Japan measured attitudes of students toward the actions taken by the United States after its discovery of missile sites and a weapons buildup in Cuba in the fall of 1962. One week later they received a message supporting the U.S. action, in either written format or audio format, which was adapted from a speech by Ambassador Adlai Stevenson before the United Nations, including a quote from President Kennedy giving facts on the missile site development of Cuba. After receiving the message, students reported their attitudes toward U.S. action on the same measures given in the pre-test, along with a measure of the convincingness of the message and bipolar adjectives describing the communicator. It was found that participants who read the message were more persuaded in favor of the message than those who listened to the message. It was also found that those who read the message rated the message as more convincing and rated the communicator as having more positive attributes than participants who listened to the message.

A number of studies have found no difference in persuasion between modes of presentation. Tannenbaum and Kerrick (1954) compared persuasive effects of the leads of radio broadcasts (audio) with the persuasive effects of the newspaper headlines (written) from earlier study by Tannenbaum (1953). Participants in the 1954 study received a radio broadcast either discussing the account of a murder trial

or an account of a conference of college educators about accelerated college programs, which were identical to the stories were used in the newspaper headline study one year prior. The results showed no differences in agreement with the messages between presenting the lead and story in newspaper (written) format versus presenting the lead and story in radio broadcast (audio) format.

In a study by Werner and Latane (1976), researchers had participants work in dyads to discuss a counseling center case history. Each participant was given different comments to read, leading them to take different views about the case. After reading the comments, participants filled out a questionnaire which indicated their initial opinion on the case before discussing it with their partner. Researchers manipulated the communication between partners. The dyad either communicated face-to-face, over a closed television circuit (video), over the phone (audio), or by written messages that the experimenter passed back and forth to the participants. After discussing or receiving the views of the other member of their dyad, participants answered a questionnaire meant to measure their opinions on the case, along with ratings of their partners and interpersonal judgments. The results showed no difference in persuasion between face-to-face, video, audio, or written conditions.

Chaiken and Eagly (1976) found that the difficulty of message comprehension had an impact on the way communication modality influenced persuasion. Participants were given background information about a legal dispute between a fictional company and union over the management's failure to pay a traditionally awarded Christmas bonus to workers. Participants were then given the message, which was a transcript in written, audio, or video format, of law students' discussion of this case. The transcript manipulated the difficulty of comprehension by the length

of arguments in the message and also the sophistication of the vocabulary used. After receiving the message, participants then received a questionnaire which measured their attitude toward the topic, their comprehension of the message, their perceptions of the source, and perceived distraction and effort.

Chaiken and Eagly (1976) found that the difficult message was more persuasive when given in written format than either audio or video format, but the easy message was most persuasive when in video format, moderately persuasive in audio format, and least persuasive in written format. They also found that participants comprehended more of the message in the written condition than in the audio or video condition.

#### *Source Characteristics and Mode of Presentation*

A few studies have investigated the effects of mode of presentation and source characteristics on persuasion. In Andreoli and Worchel's 1978 paper, they suggested that the inconsistencies in the literature on the topic of modes of presentation may be due to the fact that a number of experiments on the topic used political candidates as the source of the message who are generally perceived as untrustworthy and biased. They stated that, "the perceived untrustworthiness of the communicator in studies may have been so overwhelming that it masked the medium effects; had they included trustworthy communicators, medium effects may have been more apparent." (Andreoli and Worchel, 1978, p. 60)

In their study Andreoli and Worchel had participants in groups of two to five people listen to a message that either advocated the legalization of liquor by the drink for North Carolina or opposed the legalization of liquor by the drink for North Carolina. The researchers also manipulated the mode of presentation (video vs. audio

vs. written) and the source of the message. The source was either a candidate who was seeking election to the State House of Representatives, a current representative from the State House of Representatives, a former representative from the State House of Representatives, or an editorial consultant for a news station. It was found that the candidate was perceived as less trustworthy than the current representative, and the former representative was perceived as more trustworthy than both the candidate and current representative. No difference was found between the trustworthiness of the former representative and the newscaster. In terms of attitude change, it was found that the (highly trustworthy) newscaster and the former representative were more persuasive in the video condition than in the audio condition or the written condition. It was found that the low trustworthy candidate was more persuasive in the written condition than in both the audio and video condition.

In 1983, Chaiken and Eagly published two experiments that examined the effect of communication modality on the effect of source characteristics on persuasion. In their experiments the source was either likeable or unlikable, and the communication modality was varied by presenting the message in a written format, an audio format, and an audio-visual format (video). They theorized that audio and video modalities provide information to the audience that is absent in written messages, such as facial expressions, hand gestures, and changes in vocal qualities. This additional information causes more attention to and greater processing of source cues, making the source more salient. Chaiken and Eagly (1983) hypothesized that, “For positive cues conveying, for example, that a communicator is likable or expert, increased salience should enhance persuasiveness. However, for negative cues



conveying that a communicator is unlikable or inexpert, increased salience should decrease persuasiveness.” (p.242). From this theorizing, Chaiken and Eagly predicted that source likability would have a greater impact on persuasion when the message was presented in an audio or video format than when the message was presented in written format, such that the likable source would be more persuasive when presenting a video or audio message than when presenting a written message and the unlikable source would be less persuasive when presenting a video or audio message than when presenting a written message.

In the first of the Chaiken and Eagly experiments, participants who disagreed with their university (University of Toronto) moving to a trimester system were pre-selected for the experiment. Participants were told that the purpose of the experiment was to examine people’s reactions to speeches, and the message that they received advocated that the University of Toronto should switch to the trimester system. The source of the message was said to be a University of Toronto Administrator whose work included scholarship coordination and who had recently come from a different school (University of British Columbia). Participants were given written transcripts of an interview with the source of the message. The source’s response to the question, “How do you like being at University of Toronto compared to University of British Columbia?” manipulated the variable of likability. In the likeable condition the source responded in a positive fashion, praising the community, the people, the ability of the students, and gave an overall positive evaluation of Toronto as compared to other places. In the unlikable condition the source gave parallel responses but changed each positive quality mentioned in the likeable condition to a negative quality, for example, “the people who I’ve met both in my work and other

contexts, including colleagues, students, faculty, and other staff, strike me as not being really as friendly and nice as the people I knew at University of British Columbia.”

After reading the transcript, participants were given a message supporting the trimester system at Toronto University in written, audio, or video format. Following the message, participants answered a questionnaire designed to measure their change in attitude. The first portion of this questionnaire asked participants to write down the source’s topic and position advocated, i.e. the University of Toronto should switch to the trimester system, and then to indicate their agreement with that position on a 15-point scale ranging from “agree strongly” to “disagree strongly.” The second portion of the questionnaire asked participants to summarize each of the source’s arguments. The participant’s responses were scored by two independent raters for correctness. Cognitive responses were measured by giving participants 3 minutes to list thoughts and ideas about the source and his speech, which were also scored by independent raters. Perceptions of the source as likable, knowledgeable, modest, intelligent, approachable, competent, warm, trustworthy, pleasing, sincere, friendly, and unbiased were also measured on bipolar-adjective scales, before ratings of perceptions of distraction, difficulty, time spent thinking about message arguments (vs. source characteristics), and the importance of the message topic.

The results of this experiment were as predicted; source likability had a greater impact on persuasion when the message was presented in an audio or video format than when the message was presented in written format. It was found that the likable source was more persuasive in the audio and visual conditions than in the written condition and the unlikable source was more persuasive in the written

condition than in the audio or visual conditions. The results did not show a difference between the written conditions for the likable and unlikable source or a difference between the audio and video conditions.

The second experiment of Chaiken and Eagly employed an opinion-only control group instead of using a pre-test method, along with a new message topic and a delayed telephone post-test. Participants were exposed to 1 of 2 persuasive messages; the first argued that “tuition at the University of Toronto should be increased” and the second argued that “Ontario Student Assistant Program grants should not be made available to graduate students.” The manipulation of whether the source as likable or unlikable was identical to the first experiment. The mode of presentation was manipulated as in the first experiment, with the message being presented in one of three formats, either written, audio, or video. Participants in the second experiment were given the same measures that were employed in the first experiment, with the addition of a delayed post-message opinion measure that was conducted over the phone. Participants were asked to indicate their agreement with the positions endorsed in the persuasive messages by responding orally on a 5-point scale.

The results of the second experiment supported the findings of the first, in that the likable source was more persuasive when presenting the message in an audio or video format than when presenting the message in written format. The unlikable source was more persuasive when presenting the message in written format than when presenting the message in audio or video format.

Chaiken and Eagly assumed that their findings would apply not only to likable versus unlikable sources, but for any positive versus negative source attribute. It is

possible that Chaiken and Eagly's assumption is correct, but perhaps not. When a source is likable, that quality alone will promote persuasion, even with no message arguments, as shown in Norman (1976). Once participants receive the information about the source and deem the source likable, persuasion should occur regardless of the message arguments. When the likable source delivers the message in audio or video format, it reminds the audience of the source, making the source more salient.

In the case of other source attributes, such as expertise, the results of the mode of presentation on persuasion may be different. When the message is presented in the written format, the audience can pay more attention to the message arguments than when for the same message is presented in audio or video format. The greater salience of the source in the audio or video format may lead the audience to think less about the message arguments because the audience is thinking about source information in addition to the message arguments. In the written format the audience can think more about message arguments because of the absence of facial expressions, gestures, vocal inclinations, and other source information and can better focus attention on the message arguments.

The expertise of the source may change the perception of the quality of the arguments such that if the arguments are attributed to an expert source they are perceived as higher quality arguments and if the arguments are attributed to an inexpert source they are perceived as lower quality arguments. If participants pay more attention to the message arguments when presented in a written format, then the written format should be more persuasive than the audio format for the expert source, but the written format should be less persuasive than the audio format for the inexpert source.

These ideas concerning source expertise and the mode of presentation are counter to the assumption of Chaiken and Eagly, who supposed that the positive valence of an expert source will become more salient due to the audio format and in turn increase persuasion for the expert source and that the negative valence of the inexpert source will be more salient due to the audio format and decrease persuasion for the inexpert source relative to the written format.

### *Hypotheses*

A hypothesis of this experiment is that differences in the likability of the source will have a greater effect on persuasion when the message is presented in audio format than when the message is presented in written format. This may occur because the positive valence of the likable source and the negative valence of the unlikable source are made salient in the audio format, and that should increase the persuasiveness of the likable source while also decreasing the persuasiveness of the unlikable source. Support for the first hypothesis would replicate the findings of Chaiken and Eagly, 1983.

It was predicted that the likable source will be more persuasive when presenting a message in audio format than when presenting a message in written format. This may occur because the positive valence of the likable source is made salient when the message is presented in audio format, which will increase the persuasiveness of the audio message. In comparison, the positive valence of the likable source should be less salient when the message is presented in written format, and thus should not increase the persuasiveness of the written message.

The unlikable source should be less persuasive when presenting a message in audio format than when presenting a message in written format. This should occur

because the negative valence of the unlikable source is made salient when the message is presented in audio format, which will decrease the persuasiveness of the audio message. In comparison, the negative valence of the unlikable source should be less salient when the message is presented in written format and thus, should have a weaker tendency to decrease the persuasiveness of the written message.

Another hypothesis of this experiment is that differences in the expertise of the source will have a greater effect on persuasion when the message is presented in written format than when the message is presented in audio format. This may occur because the audience can pay more attention to the message arguments when the message is presented in written format than when the message is presented in audio format. If this is the case, and participants are more likely to perceive the arguments from the expert source as having higher quality and the arguments from the inexperienced source as having lower quality, differences in expertise should have a greater effect on persuasion when the message is presented in written format than when the message is presented in audio format.

It was predicted that the expert source will be more persuasive when presenting a message in written format than when presenting the message in audio format. This may occur because the message arguments attributed to the expert source are perceived as higher quality arguments and participants can pay more attention to the message arguments when the message is presented in written format than when the message is presented in audio format, which should increase the persuasiveness of the written message.

The inexperienced source should be less persuasive when presenting a message in written format than when presenting a message in audio format. This may occur

because the message arguments attributed to an inexperienced source are perceived as lower quality arguments and participants can pay more attention to the message arguments when the message is presented in written format than when the message is presented in audio format, which should decrease the persuasiveness of the written message.

Together the hypotheses predict that differences in source valence based on likability have greater impact on persuasion when the message is presented in audio format than when the message is presented in written format, and differences in source valence based on expertise have greater impact on persuasion when the message is presented in written format than when the message is presented in audio format. The predictions of this experiment are displayed in Table 1.

## Chapter II: Method

### *Overview*

In the context of a study of memory for ads, female college students received an advertisement for a cellular phone, either in writing or by audio tape, after having received information in writing indicating the source had positive or negative valence with respect to likability or with respect to expertise. After exposure to the advertisement, participants indicated their attitude toward the product, rated characteristics of the source, and answered a memory test.

### *Participants*

The participants were 160 undergraduate women from a course in Introductory Psychology at the University of Maryland, College Park. For their participation they were given extra credit towards their course grade. Participants were randomly assigned to one of the eight experimental conditions which varied in whether the valence of the source was positive or negative, the source characteristic was likability or expertise, and whether the mode of presentation was audio or written. There were 20 participants in each of the eight experimental conditions.

### *Procedure*

A maximum of four participants could be run during one session of this experiment. The audio and written conditions were run during different sessions of this experiment. Whether a particular session was composed of either the audio conditions or the written conditions was determined randomly.



Participants signed up for an experiment called, “Memory for Ads 2,” which was conducted in a lab in the psychology department at the University of Maryland, College Park. When participants arrived they were reminded that the purpose of the study was to investigate how much people can recall from advertisements and that the procedure of the experiment involved listening to an ad or reading an ad (dependent upon condition), and then answering some questions about that ad.

Participants were seated in separate cubicles. In each cubicle there was a consent form and a sheet of paper giving a description of the source of the ad (placed face down on the desk). The source information forms were designed to vary positive or negative source valence and whether the valence was based on likability or expertise.

In the Positive Valence-Likability Condition the form contained the following: He is an intern that works for NeoTel Communications. He has been asked to prepare an ad for University of Maryland students for this new type of cell phone. While preparing the ad he was overheard making the following comment, “I have worked with University of Maryland students in the past and have enjoyed those experiences. I have always found University of Maryland students to be thoughtful, mature, responsible adults.”

In the Negative Valence-Likability Condition the form contained the following: He is an intern that works for NeoTel Communications. He has been asked to prepare an ad for University of Maryland students for this new type of cell phone. While preparing the ad he was overheard making the following comment, “I have worked with University of Maryland students in the past and honestly, have not

enjoyed those experiences. I have not found University of Maryland students to be thoughtful, mature, responsible adults.”

In the Positive Valence-Expertise Condition the form contained the following: He is a leading consumer psychologist who has consulted for NeoTel Communications for over twelve years. He is an expert at collecting consumer responses to products and predicting if people will like the product. Many consider him one of the best in the field of consumer psychology.

In the Negative Valence-Expertise Condition the form contained the following: He is an intern that works for NeoTel Communications. He has been asked to prepare an ad for University of Maryland students for this new type of cell phone. Previously, he worked in the mailroom of NeoTel Communications.

Participants were reminded that their task was either to listen to an ad or to read an ad (dependent upon condition), and to try to remember the content of the ad. Participants were told that they were given the information form about the source of the message because the experimenter was trying to be consistent with the procedures of previous research.

After filling out the consent form, participants were given 1 to 2 minutes to read through the source information form. When all participants read the source information, the source information forms were collected. Participants were given either a set of headphones containing the message for the Audio Condition or a written copy of the message for the Written Condition. The message is the same in both conditions and discusses a new type of cell phone (Appendix A). The audio message is approximately 1 minute and 20 seconds in length. In the written

condition, participants read the message at their own speed. Once participants finished reading or listening to the message, their materials were collected.

Participants then received a questionnaire (Appendix B) which they were told was meant to control for other variables. There are nine items on this questionnaire each answered on a scale from -10 to +10. These items were used to measure the attitude toward the product, as well as judgment of the source's likability, similarity, knowledgeableability, objectivity, and sincerity.

After completing the questionnaire, participants were then given the memory test (Appendix C). The memory test asked them to fill in the blanks of sentences that were used in the ad. The memory test had 30 blanks to be filled in.

Accompanying the memory test was a form that asked for the participant's demographic information (Appendix D). Once all the forms were completed, participants were told that, "the experimenters are also interested in your impressions of the experiment, so if you would please flip over that last sheet of paper and write anything that you would like about the experiment; thoughts, reactions, criticisms, anything at all. Please write at least one sentence. Thank you." This served as a suspicion check, to determine whether participants were aware of the true nature of the experiment. In all, 7 participants' responses were excluded from the data analysis due to suspicion: 1 from the Positive Valence-Likability-Audio Condition, 3 from the Negative Valence-Likability-Audio Condition, 1 from the Negative Valence-Likability-Written Condition, and 2 from the Negative Valence-Expertise-Written Condition.

After participants wrote their reactions to the experiment, their materials were collected. Participants were then debriefed and told the true nature of the study and asked not to discuss the experiment with other people.

## Chapter III: Results

### *Source Likability Index*

A Source Likability Index was determined by averaging the scores for the items: “How attractive do you consider the speaker of the ad?” “How likable do you consider the speaker?” The Coefficient Alpha for the Source Likability Index was .81. The Source Likability Index was designed to provide a check on the manipulation of likability.

An Analysis of Variance of the Source Likability Index for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Positive/Negative Valence,  $F(1, 76)=13.33, p<.01, MSE=15.72$  and a significant main effect of Audio/Written,  $F(1, 76)=4.30, p=.04$ . The interaction effect was not significant.

The means for the Source Likability Index for all the experimental conditions are presented in Table 2. The combined mean on the Source Likability Index for the Positive Valence-Likability Conditions was 2.03 and for the Negative Valence-Likability Conditions it was -1.21. The results provide evidence that the manipulation of likability created differences in source likability.

The combined mean for the Source Likability Index for the Audio Conditions was -.51 and for the Written Conditions it was 1.33, indicating that participants in the Likability Conditions perceived the source as more likable in the Written Conditions than in the Audio Conditions. The vocal qualities and manner of speech in the Audio Condition may have been somewhat unpleasant to the participants.

An Analysis of Variance of the Source Likability Index for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects.

#### *Ratings of Knowledgeability*

The ratings for the item, “How knowledgeable do you consider the speaker?” were intended to provide a check on the manipulation of expertise. An Analysis of Variance of the ratings of knowledgeability for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects. The means for the ratings of knowledgeability for all the experimental conditions are presented in Table 3. The lack of difference between the Positive Valence-Expertise and Negative Valence-Expertise Conditions on the ratings of knowledgeability could raise some doubts about the effectiveness of the manipulation of expertise. However, the question about knowledgeability was very general and did not refer to the source’s knowledge in the specific area relevant to the advertisement, so the meaning of the ratings of knowledgeability is ambiguous.

An Analysis of Variance of the ratings of knowledgeability for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Positive/Negative Valence,  $F(1, 76)=8.35, p<.01, MSE=19.46$ . No other effect was significant.

The combined mean for the Positive Valence-Likability Conditions was 4.43 and for the Negative Valence-Likability Conditions it was 1.58, indicating that participants in the Positive Valence-Likability Conditions perceived the source as more knowledgeable than those in the Negative Valence-Likability Conditions. That

could have occurred as a result of the Halo Effect, because the source was more likable in the Positive Valence-Likability Conditions.

### *Ratings of Similarity*

For ratings on the item, “How similar do you consider the speaker?” an Analysis of Variance for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Positive/Negative Valence,  $F(1, 76)=6.37, p=.01, MSE=19.24$  and a significant main effect of Audio/Written,  $F(1, 76)=5.15, p=.03$ . The interaction effect was not significant.

The means for the ratings of similarity for all the experimental conditions are presented in Table 4. The combined mean for the Positive Valence-Likability Conditions was .33 and for the Negative Valence-Likability Conditions it was -2.15, indicating that participants in the Positive Valence-Likability Conditions perceived the source as more similar to them than those in the Negative Valence-Likability Conditions. That difference can be attributed to the Halo Effect because the source was more likable in the Positive Valence-Likability Conditions.

The combined mean for the Audio Conditions was -2.03 and for the Written Conditions it was .20, indicating that participants in the Likability Conditions perceived the source as more similar in the Written Conditions than in the Audio Conditions. That difference could also be due to the operation of the Halo Effect because the source was more likable in the Written Conditions.

An Analysis of Variance of the ratings of similarity for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects.

### *Ratings of Objectivity*

For ratings on the item, “How objective do you consider the speaker?” an Analysis of Variance for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects. An Analysis of Variance of the ratings of objectivity for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects. The means for the ratings of objectivity for all the experimental conditions are presented in Table 5.

### *Ratings of Sincerity*

For ratings on the item, “How sincere do you consider the speaker?” an Analysis of Variance for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Positive/Negative Valence,  $F(1, 76)=10.59, p<.01, MSE=25.16$ . No other effect was significant.

The means for the ratings of sincerity for all the experimental conditions are presented in Table 6. The combined mean for the Positive Valence-Likability Conditions was 1.45 and for the Negative Valence-Likability Conditions it was -2.20, indicating that participants in the Positive Valence-Likability Conditions perceived the source as more sincere than those in the Negative Valence-Likability Conditions. That difference could be due to the operation of the Halo Effect.

An Analysis of Variance of the ratings of sincerity for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects.



### *Product Attitude Index*

A Product Attitude Index was used to measure persuasion. It was determined by averaging the scores for the items: “How much would you like/ dislike having the NeoTel 2000?” “How positive/ negative is your evaluation of the NeoTel 2000?” “How much do you like/ dislike the features of the NeoTel 2000?” The Coefficient Alpha for the Product Attitude Index was .90.

An Analysis of Variance of the Product Attitude Index for the four Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Audio/Written,  $F(1, 76)=4.00, p=.05$ ,  $MSE=7.93$  and a significant interaction of Positive/Negative Valence and Audio/Written,  $F(1, 76)=6.53, p=.01$ . The main effect of Positive/Negative Valence approached significance,  $F(1, 76)=3.69, p=.06$ .

The means for the Product Attitude Index for all the experimental conditions are presented in Table 7. As can be seen from Table 7, the Positive Valence-Likability-Audio Condition was more persuasive than the Negative Valence-Likability-Audio Condition. That difference was significant  $t(38)=3.23, p<.01$ . The Positive Valence-Likability-Written Condition was slightly lower than the Negative Valence-Likability-Written Condition, a difference which was not significant.

The Positive Valence-Likability-Audio Condition was slightly higher than the Positive Valence-Likability-Written Condition, a difference which was not significant. The Negative Valence-Likability-Audio Condition was less persuasive than the Negative Valence-Likability-Written Condition. That difference was significant  $t(38)=3.11, p<.01$ .

An Analysis of Variance of the Product Attitude Index for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects, but the main effect of Positive/Negative Valence approached significance,  $F(1, 76)=2.19, p=.14, MSE=8.97$ , as did the interaction of Positive/Negative Valence and Audio/Written,  $F(1,76)=1.40, p=.24$ .

As can be seen from Table 7, the Positive Valence-Expertise-Written Condition was more persuasive than the Negative Valence-Expertise-Written Condition. That difference was significant  $t(38)=2.07, p=.05$ . That finding provides evidence that perceived expertise was successfully manipulated. The Positive Valence-Expertise-Audio Condition was slightly higher than the Negative Valence-Expertise -Audio Condition, a difference which was not significant.

The Positive Valence-Expertise-Written Condition was slightly higher than the Positive Valence-Expertise-Audio Condition, a difference which was not significant. The Negative Valence-Expertise-Written Condition was lower than the Negative Valence-Expertise-Audio Condition, a difference which approached significance  $t(38)=1.55, p=.13$ .

To determine whether the interaction of Positive/Negative Valence and Audio/Video for the four Likability Conditions was significantly different than the interaction of Positive/Negative Valence and Audio/Video for the four Expertise Conditions, a planned comparison was conducted. That planned comparison was significant,  $F(1, 152)=6.85, p=.01, MSE=8.45$ .

#### *Memory Test*

The memory test was scored by counting the number of items answered correctly out of 30. An Analysis of Variance of the memory test for the four

Likability Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed no significant effects, although the main effect of Audio/Written approached significance,  $F(1, 76)=1.91$ ,  $p=.17$ ,  $MSE=18.42$ . The means for the memory test for all the experimental conditions are presented in Table 8. As seen from Table 8, the combined mean for the Likability-Written Conditions was higher than for the Likability-Audio Conditions.

An Analysis of Variance of the memory test for the four Expertise Conditions with Positive/Negative Valence and Audio/Written as between-subject factors revealed a significant main effect of Audio/Written,  $F(1, 76)=14.06$ ,  $p<.01$ ,  $MSE=22.77$ . No other effects were significant. The combined mean for the Expertise-Written Conditions was higher than for the Expertise-Audio Conditions. The results indicate that participants recalled more information from the message when the message was presented in written format than audio format.

## Chapter IV: Discussion

The results of this experiment support the predictions that the differences in likability of the source would have greater impact on persuasion when the message is presented in an audio format than written format and the differences in expertise of the source would have greater impact on persuasion when the message is presented in a written format than audio format. The Positive Valence-Likability-Audio Condition was significantly more persuasive than the Negative Valence-Likability-Audio Condition, whereas there was no significant difference between the Positive Valence-Likability-Written Condition and the Negative Valence-Likability-Written Condition. The Positive Valence-Expertise-Written Condition was significantly more persuasive than the Negative Valence-Expertise-Written Condition, whereas there was no significant difference between the Positive Valence-Expertise-Audio Condition and the Negative Valence-Expertise-Audio Condition. The results of the planned comparison showed that the interaction of Positive/Negative Valence and Audio/Video was significantly different for the Likability Conditions than for the Expertise Conditions.

The greater impact in the audio format of the differences in likability was expected to occur because both the positive attributes of the likable source and the negative attributes of the unlikable source are made salient in the audio format, which should increase persuasion for the likable source and decrease persuasion for the unlikable source. In contrast, when the message is presented in written format differences in likability are less salient, and such differences should have less effect on persuasion.

The greater impact in the written format of the differences in expertise was expected to occur because the audience can pay more attention to the message arguments when the message is presented in written format than when the message is presented in audio format. If message arguments attributed to an expert source are perceived as higher quality arguments and greater attention is given to message arguments in the written format than the audio format, that should increase the persuasiveness of the expert source in the written format compared to the audio format. If message arguments attributed to an inexpert source are perceived as lower quality arguments, that should decrease the persuasiveness of the inexpert source in the written format compared to the audio format.

As expected, the Negative Valence-Likability-Audio Condition was less persuasive than the Negative Valence-Likability-Written Condition. However, the Positive Valence-Likability-Audio Condition was not more persuasive than the Positive Valence-Likability-Written Condition. A possible explanation for that result is that the likable source was perceived as more likable in the Written Conditions than in the Audio Conditions, perhaps because the vocal qualities and manner of speech in the Audio Condition may have been somewhat unattractive to the participants. The lower likability of the source in the Positive Valence-Likability-Audio Condition than the Positive Valence-Likability-Written Condition could have counteracted the predicted effect of greater persuasion of the likable source in the Audio Condition than the Written Condition.

As expected, the Negative Valence-Expertise-Written Condition was less persuasive than the Negative Valence-Expertise-Audio Condition. However, the Positive Valence-Expertise-Written Condition was not more persuasive than the

Positive Valence-Expertise-Audio Condition. It is not clear why no difference was found between those conditions. One possibility is that because the message was an advertisement, the audience was skeptical about the message arguments, which may have lead the participants to perceive the arguments in the ad as being of low-quality. The perception of low-quality message arguments may have decreased the persuasiveness of the Written Condition compared to the Audio Condition, because participants paid more attention to the message arguments in the Written Condition. That could have counteracted the predicted effect of greater persuasion of the expert source in the Written Condition than the Audio Condition.

The findings of this research support the findings of Chaiken and Eagly (1983) that differences in likability have greater impact on persuasion for audio messages than written messages. However, at the same time, the findings of this research challenge the assumption made by Chaiken and Eagly that the pattern of results found for likability would also occur for expertise. In fact, the results of the current study are the opposite of what Chaiken and Eagly assumed would occur for expertise. The findings question the idea that increasing the salience of any source characteristic will amplify the persuasive impact of that characteristic. Whether the specific source characteristic is likability or expertise needs to be taken into account.

The results of this investigation of source characteristics and mode of presentation should have applied value that could be utilized in the fields of advertising and marketing. Advertising campaigns for various goods and services must determine the most effective form of conveying their message to their audience. An integral part of that process is determining which mode of presentation to use in combination with which source.

Table 1

*Predictions of Relative Persuasion for Positive and Negative Valence of Likability or Expertise in Audio or Written Modes of Presentation*

Source	Mode of Presentation	
	Audio	Written
Positive Valence-Likability	3	2
Negative Valence-Likability	1	2
Positive Valence-Expertise	2	3
Negative Valence-Expertise	2	1

Note: Larger numbers indicate greater predicted persuasion.

Table 2

*Means of the Source Likability Index for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	1.50	2.55	2.03
Negative Valence-Likability	-2.53	.01	-1.21
Positive Valence-Expertise	1.15	1.15	1.15
Negative Valence-Expertise	1.68	.18	.93
All	.45	.99	

Note:  $n=20$  per condition. The Source Likability Index is the average of scores on two items, “How likable do you consider the speaker of the ad?” and “How likable do you consider the speaker?” Each item was answered on a scale from -10(extremely unlikable/extremely unlikable) to +10(extremely likable/extremely likable).



Table 3

*Means of the Ratings of Knowledgeability for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	4.55	4.30	4.43
Negative Valence-Likability	.80	2.35	1.58
Positive Valence-Expertise	3.90	4.25	4.08
Negative Valence-Expertise	3.70	.75	2.23
All	3.24	2.91	

Note:  $n=20$  per condition. Knowledgeability was rated on a scale from -10(extremely unknowledgeable) to +10(extremely knowledgeable).

Table 4

*Means of the Ratings of Similarity for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	-.55	1.20	.33
Negative Valence-Likability	-3.50	-.80	-2.15
Positive Valence-Expertise	-1.15	-2.65	-1.90
Negative Valence-Expertise	-1.35	-2.35	-1.85
All	-1.64	-1.15	

Note:  $n=20$  per condition. Similarity was rated on a scale from -10(extremely dissimilar) to +10(extremely similar).

Table 5

*Means of the Ratings of Objectivity for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	2.15	.45	1.30
Negative Valence-Likability	.45	2.40	1.43
Positive Valence-Expertise	2.50	.65	1.58
Negative Valence-Expertise	1.35	-1.15	.01
All	1.61	.59	

Note:  $n=20$  per condition. Objectivity was rated on a scale from -10(extremely unobjective) to +10(extremely objective).

Table 6

*Means of the Ratings of Sincerity for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	.70	2.20	1.45
Negative Valence-Likability	-3.00	-1.40	-2.20
Positive Valence-Expertise	-.40	.20	.01
Negative Valence-Expertise	1.35	-1.85	-.25
All	-.34	-.21	

Note:  $n=20$  per condition. Sincerity was rated on a scale from -10(extremely insincere) to +10(extremely sincere).

Table 7

*Means of the Product Attitude Index for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	6.35	6.00	6.18
Negative Valence-Likability	3.53	6.40	4.97
Positive Valence-Expertise	6.38	6.52	6.45
Negative Valence-Expertise	6.18	4.73	5.46
All	5.61	5.91	

Note:  $n=20$  per condition. The Product Attitude Index is the average of the scores on three items, “How much would you like/ dislike having the NeoTel 2000?”, “How positive/ negative is your evaluation of the NeoTel 2000?”, “How much do you like/ dislike the features of the NeoTel 2000?” Each item was answered on a scale from -10(dislike extremely/extremely negative) to +10(like extremely/extremely positive).

Table 8

*Means of the Memory Test for the Experimental Conditions*

Source	Mode of Presentation		
	Audio	Written	Both
Positive Valence-Likability	12.75	14.95	13.85
Negative Valence-Likability	12.15	12.6	12.38
Positive Valence-Expertise	10.95	15.1	13.03
Negative Valence-Expertise	11.65	15.5	13.58
All	11.89	14.54	

Note:  $n=20$  per condition. The memory test was scored by counting the number of items answered correctly out of 30.

## Appendices

### Appendix A

#### *Cell Phone Advertisement*

“Let me tell you about a new type of cell phone that you’ll like. It’s the NeoTel 2000. The NeoTel 2000 has a number of features that you’ll like in a cell phone. The features of the NeoTel 2000 include long battery life, so it requires no more than one charging per day. Another feature of the NeoTel 2000 that you’ll like is the crystal clear quality that guarantees great reception, even miles outside the standard calling area. The exceptional light weight and slim profile are features you’ll like. I am confident that those who experience the features of the NeoTel 2000 will realize how much you’ll like this phone. The NeoTel 2000 also has the capability to take and send pictures via the wireless web and to download other phone accessories, features that you’ll like. Plus, the phone’s sleek full color screen comes with a protective cover. So look for this new NeoTel product at your local electronics outlet. The NeoTel 2000, a cell phone that you’ll like, with a surprisingly low price. NeoTel, enhancing communication for the future.”

Appendix B

*Questionnaire Items*

1. How much would you like/ dislike having the (NeoTel 2000)?

Dislike -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 Like  
Extremely Extremely

2. How positive/ negative is your evaluation of the (NeoTel 2000)?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Negative Positive

3. How much do you like/ dislike the features of the (NeoTel 2000)?

Dislike -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 Like  
Extremely Extremely

4. How likable do you consider the speaker of the ad?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Unlikable Likable

5. How similar to you is the speaker?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 Extremely  
Dissimilar Similar

6. How likable do you consider the speaker?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Unlikable Likable

7. How knowledgeable do you consider the speaker?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Unknowledgeable Knowledgeable

8. How objective do you consider the speaker?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Unobjective Objective

9. How sincere do you consider the speaker?

Extremely -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10Extremely  
Insincere Sincere



Appendix C

*Memory Test*

Directions: Try to recall the exact words used in the advertisement and write them in the blank spaces.

Let me tell you about a new type of cell phone that \_\_\_\_\_.

The features of the NeoTel 2000 include \_\_\_\_\_ battery \_\_\_\_\_, so it  
\_\_\_\_\_ no more than \_\_\_\_\_ charging per \_\_\_\_\_.

\_\_\_\_\_ quality that guarantees \_\_\_\_\_ even  
\_\_\_\_\_ outside the \_\_\_\_\_ area.

\_\_\_\_\_ weight and \_\_\_\_\_ profile.

Has the capability to \_\_\_\_\_ and \_\_\_\_\_ via the  
\_\_\_\_\_ and to download other \_\_\_\_\_.

Plus, the phone's \_\_\_\_\_ full \_\_\_\_\_ screen comes with a \_\_\_\_\_.

NeoTel, \_\_\_\_\_ for the future.

Appendix D

*Participant Information Form*

Participant Information Form

Your Age: \_\_\_\_\_

The course you are receiving credit for: \_\_\_\_\_

Have you participated in Experiment #151 “Memory for Ads 1?” Yes / No

Your Racial Ethnicity: (Check all that apply)

African American \_\_\_\_\_ Native American \_\_\_\_\_ Hispanic \_\_\_\_\_

Caucasian \_\_\_\_\_ Asian/Pacific Islander \_\_\_\_\_ Middle Eastern \_\_\_\_\_

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