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Channel differences in the one-way reception and two-way encoding and transmission of a persuasive communication.

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CHANNEL DIFFERENCES IN THE ONE-WAY RECEPTION AND TWO-WAY ENCODING AND TRANSMISSION OF A PERSUASIVE COMMUNICATION

by

Terry P. McGaughey

B. A. Queens University, 1971

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ABSTRACT

An attempt was made to examine channel differences in one-way and two-way communications of persuasive stimuli. An interpersonal communications paradigm was used similar to that devised by Boyde & Perry (1971). An initial group of 40 Ss were presented with a standardized A or AV stimulus presentation, which they, in turn, communicated to another S (the E's confederate), using both A and AV channels of two-way communication. The tapes of these communications were then relayed under A and AV conditions of one-way tramsmission to another group of 80 decoding Ss. Both groups were administered attitude change questionnaires pre and post stimulus presentation, as well as post stimuli semantic differential scales rating the message, channel, speaker, A and AV channels of two-way communication. In addition, a content analysis was conducted on the Ss verbal communications in terms of the duration, information content and error, and verbal immediacy. No differences were found between the A and AV channels for one-way communication but there were large differences in the two-way communication channels. The AV channel of two-way communication was rated as better in terms of a general Evaluative factor, including good, useful, and satisfactory whereas the A channel was considered more private. The AV two-way channel also produced more accurate information but less verbal immediacy than the A channel.

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CHAPTER I

INTRODUCTION

The presence of qualitative and quantitative differences between different channels of communication, if empirically proven is of considerable importance to many areas of psychology and media use. In particular, this problem has significant application to the following three areas:

i) attitude change research

ii) education and/or information processing research

iii) use of the newer technological channels of two-way communication.

The effects of channel differences have been examined to some extent within all of the above areas but the results have been either not significant or inconsistent, both within and between the different areas. The present experiment is an attempt to relate somewhat these different areas and to examine whether or not channel differences do occur within them.

Attitude Change Research

A communication act necessarily involves a source, a receiver and a channel of transmission. Extensive research has been conducted into the effects of all the above variables and their relationship with attitude change with varying degrees of success. The variables involved

with the persuasiveness of a communicator in terms of his credibility, authority, identification and knowledge have been extensively researched, resulting in a large mass of comprehensive and largely integrated data (Hoveland & Weiss 1951, Rosenow & Robinson 1967, Lerbinger & Sullivan 1965, Hoveland, Janis & Kelley 1953). All of the above factors can be shown to depend on, in part, non-verbal affective displays (Aronson & Golden 1962, Mehrabian & Williams 1969, Rosenow & Robinson 1967). Despite, however, large qualitative differences in the affective communication capacities of the various channels documented by various authors, (Mehrabian 1972, pp. 54-84, Davitz 1968), and the proven relationship of these to the perception of a speaker, (Aronson & Golden 1962, Mehrabian & Williams 1969, Rosenow & Robinson 1967), the overall attitude change elicited by a persuasive communication has not been shown to differ consistently between different channels of communication (Jones 1971, Wall & Boyde 1967, Mielke 1971). In the face of such widespread disagreement, it is perhaps appropriate to consider whether the right questions are being asked. The general trend of research in this area has been in terms of evaluative comparisons between different media presentations in order to determine which are the most effective agents of attitude change. Questionnaire measures of attitude change and content recalled have not provided consistent results, possibly because they are unidimensional attempts to measure basically a multi-dimensional phenomena. The question asked by this study was therefore "in what way do the media channel differ in terms of the perception, reception and encoding of a persuasive communication" rather than the traditional "which channel is the best."

The research on the information processing and educational differences between different channel of communication have also shown generally negligible or inconsistent results. Hsia's (1971) summary of work done in this area suggests that "the one conclusion that can be drawn from nearly one thousand studies surveyed is: no general conclusive statement can be made." Other authors have reached essentially the same conclusion (Day & Beach 1950, Lumsdaine 1963, Allen 1971). The reason for such widespread controversy about channel difference effects can be partially explained by the lack of any form of integrated model. Hsia (1968a, 1968b, 1971) has attempted to formulate such a model for channel information processing, although its emphasis on cognitive information processing somewhat limits its application to other areas of communication (ie. affect displays). It does appear to be, however, a step in the right direction.

Information Processing Model

Hsia's model is basically a modification of Shannon & Weaver's (1949) integrated, to a certain extent, with human information processing theory. Information intake is seen as operating on a multi-channel basis such that increased dimensionality of channel input increases information intake. Information in one channel also provides cues to information contained in the other, thus facilitating processing (Hsia 1968a, 1968b, Garner 1962). The above holds true only when the information processing capacity of the channel is not approached or exceeded, in which case interchannel interference occurs due to channel overload (Shannon & Weaver 1949, Cherry 1957).

The most important differentiation made by the model is in its categorisation of the output or recall of the stimulus recipient. Hsia outlines three general categories for differentiating output. These are:

i) correctly recalled information

ii) equivocation or errors of omission (information in the input not recalled in the output)

iii) errors of projection or error (information recalled in the output that was not included in the input)

The difference between error and equivocation is of considerable importance as the two terms are obviously of a different nature and origin. Equivocation is essentially caused by a failure to process information in the input, a condition usually associated with communication channel overload: error, on the other hand, is a more complex phenomena caused by misassociation plus other, as yet undefined factors. The omission of the above important distinction between error and equivocation has been considered as largely responsible for many of the past conflicting results on channel comparisons (Hsia 1968a, 1968b, 1971).

Unfortunately, there has been little empirical research on this model, other than in terms of telecommunications research technology (Cherry 1959, Pierce 1972). Within this area, however, the model has proved highly heuristic (Pierce 1972).

The only empirical use of the model, other than the above, was by Hsia himself (Hsia 1968b). The study was designed to evaluate the effects of channel differences under different levels of between channel redundancy. In terms of both differentiated and undifferentiated recall, the AV channel was found to be superior with both more information

and less error and equivocation than either the A or V channels alone. In terms of the individual channels, the A channel was found to process more information, although more errors were made, whereas the V only channel was able to process less information but the information processed tended to be more reliable with less error than the A only channel.

The results of the experiment are highly provocative in terms of their relevence to general media messages and use. Unfortunately, the study does suffer from a number of severe methodological faults which limits the generalisations that can be made. Hsia used poetry passages as stimulus material, a format that is already pre-encoded to a degree, for memorisation. Furthermore, the V channel consisted of printed poetry sections projected on a screen. Such a presentation immediately confounds a pure V channel with a constrained typescript or written medium. This problem was further exaggerated by the use of seventh grade students as Ss with no pre-selection or pre-testing for differential reading skills. If generalisation to the more common forms of media channels available (such as TV) are to be made, it is obvious that more empirical evidence is required to demonstrate the applicability of this model to more standardised messages and media formats.

The above concepts can be combined to assess the cognitive information processing of a particular message in a particular channel (or combination of channels), if some form of "bit" information unit is used, but is extremely difficult in terms of unstructured free recall. A crude differentiation, however, could be applied to almost any message

in order to assess to what extent the information has been processed and to what extent error and equivocation occur. This has been attempted in the present study.

Communication Process Model

Another viable approach to channel differences that has emerged recently is in terms of a communication paradigm model (Boyde & Perry 1972, Perry & Boyde 1972). The above authors utilised an interpersonal communication paradigm (ICP) to study differences in channel effects on person perception (Boyde & Perry 1972, Perry & Boyde 1972). Basically, the paradigm involved presenting various descriptions of hypothetical stimulus persons via different channels of communication to an encoding group of Ss, who recoded the communication and transmitted it to another group of Ss (the decoding group), who then attempted to identify the original stimulus persons. Using this paradigm, Perry & Boyde (1972) found AV and typewritten messages to be significantly superior to A only presentation in terms of overall information transfer. A significant interaction effect between the channel of presentation and the channel of communication was also found, indicating that the principal information loss occurred during the first step, namely during the first stimulus presentation to the encoding group (Perry & Boyde 1972). The A channel was found to involve the most information loss, even if a relatively superior channel was used to recode and retransmit the information. A later study by Boyde & Perry (1972), however, found virtually no differences between channel when the presentation time was held constant.

There are, however, two criticisms that can be levied against the above findings. For one thing, the effect of the encoding process was done without the actual presence of an encoder, the Ss merely wrote or verbalised their messages which were then communicated to the final decoding Ss by the experimenter. Such an overly controlled process necessarily confounds the "transmission channel" with a "recall procedure or recall channel." Secondly, the above author's results are almost totally dependent on the results shown by the final decoding group, with no evaluation of the transmission message itself. Such an omission definitely limits the conclusions that can be drawn from the above studies and their generalisation to a communication process.

This paradigm is, however, of considerable importance to the study of communication channel effects. Such a procedure allows step by step analysis of the information and affect transmitted, but also allows comparison between one-way and two-way communication channels. The present study attempts to avoid the criticisms levied against the above authors by using a controlled feedback situation by means of a well rehearsed confederate, and utilises an intensive content analysis of the message. The following content variables were examined: time spent talking, number of words spoken, number of nonfluencies uttered, the amount of correctly recalled information, the amount of error, the amount of equivocation and finally the amount of verbal immediacy expressed. The first three variables were indicated by the results of Chapanis' work on two-way communication (mentioned below). The amount of correctly recalled information, the number of errors and equivocation relates to an information processing type model and in particular Hsia's

works (Hsia 1968a, 1968b, 1971). Finally, verbal immediacy was included as a subtle measurement of affect towards the topic of communication. This measurement is defined as the verbally expressed, implied psychological distance between a communicator and the subject of his conversation, when scored objectively using Wiener & Mehrabian's scoring criterion (Wiener & Mehrabian 1968, Mehrabian 1972, pp. 31-54). This measure has been proven to be a reliable and valid method of measuring positive and negative affect (Gollick, Wiener & Mehrabian 1967, Mehrabian 1964, 1965, 1966, 1967, Mehrabian & Wiener 1966), even when judged by untrained observers (Mehrabian 1966, 1967, Pease 1972). The above authors also comment that the overall immediacy is also a function of the channel of communication used, although this factor has not been examined or developed, to any extent by the above (Mehrabian 1972, p. 31). It is hoped that the present experiment will be able to shed some light on the relative importance of these two factors in determining verbally expressed immediacy.

Two-way Communication Channel Effects

The inclusion of a two-way interaction using an A or AV channel necessitates the inclusion of a number of variables into the experimental study. For one thing, such an interaction involves some form of feedback (although controlled), which has been shown to effect the length and content of a communication (Leavitt & Mueller 1951, Verplack 1955). Also the type of channel of communication used can either enhance the quality and quantity of feedback (the AV channel) or reduce it (the A channel). Unfortunately though, there have been few experiments

in this area and our knowledge of it remains extremely limited. One exception to this rule, is a study by Chapanis et al (1972) who examined the effects of four communication modes on the behaviour of teams while engaged in a cooperative problem solving task. The above authors found considerable differences between typed, handwritten, audio only, AV and face-to-face communication channels in terms of their efficiency, type of messages used, and time spent communicating for the solution of "real world" problems. The general trend found was that the more communication rich the channel, the better the performance of the groups, at least in terms of efficiency and accuracy. (The authors define communication rich as approaching an "ideal, completely interactive conversational" system).

Christie (1973) tried a different approach to the problem by examining the general beliefs and feelings of persons using different forms of technological teleconferencing channels between physically isolated conferees. The majority of the differences found in this study were between media having a visual channel (closed circuit TV and face-to-face) and a mono audio channel (speakerphone, and mono A) (Christie 1973). In all the above cases, the AV channel was rated as being more enjoyable, aesthetic and important but less private than an A only channel of communication. Whether these differences also apply to an individual interpersonal communication via A or AV channels is one of the questions that is examined by the present study.

Statement of the ~~Hypo~~these

The present experiment is thus basically an exploratory attempt to incorporate the relevent aspects of the above three areas namely: i) Hsia's information processing model, ii) Boyde & Perry's inter-personal communication paradigm and iii) the analysis of two-way communication effects, in an attempt to measure the channel differences between the AV and A channels of communication. For simplicity, the following hypotheses have been grouped under the headings of one-way and two-way communication effects:

1. For one-way communications the AV channel:

   i) will not show greater attitude change than the A only channel (Hsia 1968a, Hsia 1968b, 1971, Wall & Boyde 1971, Jones 1971)

   ii) will better communicate the affective qualities of the speaker, involving friendliness, complexity and persuasiveness (Mehrabian & Williams 1969, Davitz 1968)

   iii) will yield greater recall and less information loss due to error and equivocation (Hsia 1968a, 1968b, 1971)

2. For two-way communications the AV channel:

   i) will be perceived as more enjoyable, more important and have greater aesthetic affect than the A channel (Christie 1973)

CHAPTER II

METHOD

Subjects

The Ss were drawn from undergraduate psychology classes at the University of Windsor. Forty female Ss served as the initial message recipients and encoders (stage I Ss) and eighty female Ss were used as the final decoders in the communication paradigm (stage II Ss).

Materials

An attitude scale devised by Freel (1962) and based on Thurstone's (1959) scale items towards the movies was used to measure overall attitudes before and after the presentation of the persuasive communication directed against the movies. This questionnaire scale is shown in appendix A.

Four different semantic differential scales were also used to measure the Ss's feelings towards a) the communication message, b) the communication channel, c) the communicator or speaker and d) the communication channels used to retransmit the information (the user channels of communication). The items on all scales were compiled from an intensive search of the literature and all items used either had or were thought to have been able to show differences between the different channels of communication. The first three scales were administered to all Ss after the presentation of the stimulus persuasive argument, whereas the last scale (the user channel of communication scale) was only administered after the Ss had used both A and AV channels to retransmit the information. The prepost attitude scales and the communication message, channel and speaker scales were also administered to the final stage II decoding Ss. A complete list of the scales and their respective items are shown in appendices A, B, C, D, and E.

The Communication Stimulus

The communication stimulus used was a 4 minute argument levied against the value of movies as entertainment. The text was originally prepared by Freel (1962) and has been shown to be an effective agent of attitude change. The communication itself is based on Thurstone's (1959) attitude scale items on the movies. Some revisions were made to update the examples used, however.

The above text was delivered by a mature, competent public speaker who was presented as a visiting professor of communication arts, in order to maximise his perceived status. The final, rehearsed presentation was then videotaped on a Sony model AV 3650 videorecorder and used as a standardised stimulus for both A and AV stimulus presentation conditions. The complete final version of the text, including all revisions made, is shown in appendix F.

Content Measures

The Ss verbal interaction with the E's confederate was taped in full and from these tapes a complete written transcript was made. From these transcripts, seven different content measures were extracted. These were i) number of words spoken by the S during the communication, ii) the number of nonfluencies uttered (a nonfluency was operationally defined as an utterance that was not a word, morphene, nor ever was intended as a meaningful word, ie. umm, er, ahh etc.), iii) the degree of verbal immediacy expressed as scored by Mehrabian's (1972, pp. 31-54) scoring criterion and using all specified categories to produce a composite score for each communication, iv) the time spent

talking (in seconds), v) the number of points correctly recalled by the S, vi) the errors of projection made by the S, and vii) the errors of ommission or equivocation made by the S.

The latter three measures relating to the information content of the communications was scored independently by two markers under blind conditions. The scoring of correct content was done according to a rigid marking scheme with set points for each correct item recalled from the stimulus. This marking criterion is shown in appendix G. The judging of errors of projection was also done by the same markers but there was no objective marking scheme available and the quantitative scores were at the discretion of the markers. The above measures, as determined by the two markers, was then correlated to determine the between judge reliability. The Pearson r correlation between the two markers judging correct verbal content was 0.900 and, for judging errors of projection was 0.725. In the latter case, the presence or not of errors was agreed upon in 78% of the cases but the numerical score given fluctuated somewhat between markers. Given the above between judge reliability, the data was then pooled to give one mean correct score per communication and one mean error score. The mean equivocation score was then calculated from the formula:

total content of stimulus - correct recall - errors = equivocation

As the total correct content of the stimulus was a predetermined constant, the sum of the correct recall = errors of projection was used as a representative figure for this variable during the analysis. The actual equivocation measure (or information loss figure) was thus easily

calculated by subtracting the above representative score from 38 (the correct information content of the stimulus as scored on the marking scheme).

Procedure

The attitude change questionnaires were administered to the Ss in both groups between 5 and 10 days before the experiment, in order to assess initial attitudes towards the movies and to minimize the effects of memory of the first set of responses on the final post test attitude scale.

After the pretest attitude scale was filled out, the Ss were contacted by telephone and asked to appear for the experiment on "their perception of a media presentation." The stage I Ss were then randomly divided up into two groups of 20 Ss, one of which received an A only presentation of the stimulus, the other an AV presentation. The presentation was made via a 10 inch Sony TV monitor (model CVM 110UA) located 3.5 feet from the S. Only the A group had the video input disconnected during the presentation. The Ss were instructed to watch the presentation carefully as questions would be asked afterwards about the presentation and the S would also be required to tell "another S" about it afterwards. A complete script of the instructions to the Ss is shown in appendix H. After instructing the S, the experimenter then left the room to turn on the stimulus tape from an adjoining room.

Immediately following the presentation of the stimulus tape, the E returned to administer a post test attitude scale and the semantic differential scales on the communication message, channel and speaker.

The S was required to fill these out by herself and a fixed time limit of 20 minutes was imposed to standardise the delay interval and minimize retention differences between the Ss. All Ss were able to complete the questionnaire within this period.

After the time period set aside for the filling in of the questionnaires, the E returned and asked the S to prepare to tell another S, who had not seen the presentation, as much as they could remember about it. The S was not permitted to make any written notes however. (The other S, in this case, was a confederate of the E). The S was also told that the other S had been told to say as little as possible in order to give the actual S maximum time to relate the details of the stimulus presentation. This communication was to take place via either a two-way videophonic hookup, or via an A only PA type system. Again, the order of use of the two communication modes was randomised and balanced between both groups of Ss.

The S remained seated in the room facing a Sony 10 inch TV monitor (model CVM 110UM), a Sony model AVC 3210 videocamera with a 12.5 mm lens and a microphone. The TV monitor was placed 3.5 feet from the S's face and the camera was placed directly above the monitor with the lens located 6 inches behind the top center of the TV screen. Both TV monitor and camera were thus at the S's approximate eye level, and produced a full screen head and shoulders image of the S (or confederate).

The above equipment was connected to the input of a Sony model AV 3650 videorecorder and the output of the videorecorder was, in turn, connected to an identical TV monitor set up in the confederate's room.

The confederate also had an identical videocamera which was connected directly to the TV monitor in the S's room. The A component was supplied by a microphone in the confederate's room connected to a Sony model TC 105 taperecorder set on monitor mode to drive the S's TV monitor's speaker. The complete setup was used for the two-way AV communication condition, whereas the confederate's camera lenscap was left on in the A only condition to eliminate the video transmission.

The S was then given 3 minutes to prepare and think about what she would say, after which time the S was contacted by the E's confederate. The confederate initiated the discussion by asking the S to tell her as much as she could remember about the stimulus presentation. Throughout the discussion, the confederate assumed an amiable, interested air, and other than initiating the discussion, said little other than an occasional uh-huh to convey understanding. The confederate was also instructed to say a single probe statement of "is there anything else that you can remember?" when the S gave signs of running out of things to say. The discussion was otherwise free from any restraints or time limitations.

Following the first communication, the E returned to give the S her next set of instructions. This time the S was asked to again relate what she remembered about the stimulus presentation, but this time to use the other channel of communication. The same confederate was used as the other S and the same conditions applied to the second communication as the first. Although all Ss voiced some suspicion that the second

communication partner was identical to the first communication partner, only 27% of the Ss claimed to be certain of this when asked during the post experiment debriefing session.

Following this second communication, the E again appeared to administer the final semantic differential scale on the evaluation of the A and AV user channels of communication (these were arranged so that they appeared in the same order as the channels were used by the S). When this was filled in and returned to the E, the S was debriefed and thanked for her cooperation.

The second stage of the experiment (stage II), involved playing back the tapes made earlier of the stage I Ss communications mentioned above. The 80 Ss in this group were randomly assigned a communication of one of the stage I Ss which they were to view individually. The stage II Ss were also required to fill in an attitude change questionnaire 5-10 days before the experiment. When the S reported for the experiment, they were told that they would be shown a videotape (or audiotape) of an "interaction between two people, one of whom is trying to tell the other about a broadcast she had just heard." The S was instructed to watch (or listen) carefully, as a questionnaire would have to be filled in afterwards about the presentation. The E then left the room to turn on the videotape from the adjoining room. As before, in the audio presentation condition, the video component was disconnected to give an A only presentation. Following the stimulus presentation, the S was given a post stimulus attitude change questionnaire and semantic differential scales on the communication message, channel and speaker. These

questionnaires were identical to those used in the first part of the experiment. When the questionnaires were filled in, the Ss were debriefed and thanked for their cooperation.

RESULTS AND INTERPRETATION

This section is divided into three sub-parts for the sake of clarity. Section 1 deals with the reception and evaluation of the standardized one-way stimulus presentation. Section 2 deals with the re-encoding and transmission of this information via A and AV channels of two-way communication, including both semantic differential ratings and content analysis of Ss verbalizations. Finally, section 3 deals with the independent evaluation of the above two-way communications when replayed to another group of Ss (stage II Ss).

Section 1:

Reception of a One-way Persuasive Communication

A principal component analysis of the ten item attitude scale questionnaire administered both pre and post stimulus presentation was performed and the components with eigenvalues greater than 1.00 were rotated using the varimax criterion. This strategy was used whenever appropriate, in order to reduce the data to manageable proportion. Both pre and post tests were included in the analysis to yield 80 cases (40 Ss with two replications per S). The resulting rotated factor matrix is shown in Table 1.

Factor 1 loaded largely on the items "the movies are good clean entertainment", "movies are just a harmless pastime", and "I like the movies as they are because I go to be entertained, not educated", and "a good movie is the best entertainment that can be obtained cheaply." All of the above items made referrence to the entertainment value of

TABLE 1

Varimax Rotations of the Principal Components of the Attitude Scale Items Repeated pre and post Stimulus of the Stage I Ss (n = 40 subjects: 2 repetitions per subject yield 80 cases)

	I	II	III	IV
Factor I Entertainment Value of Movies				
1. the movies are good clean entertainment	-83	-19	02	16
2. movies are just a harmless pastime	-82	-19	-05	-13
3. I like themovies as they are because I go to be entertained, not educated	-79	20	-11	10
4. a good movie is the best entertainment that can be obtained cheaply	-61	-04	-23	32
Factor II Desireability of Movies				
1. I'd never miss the movies if we didn't have them	06	78	08	29
2. sometimes I feel the movies are desireable and sometimes I doubt it	07	76	01	13
Factor III Distance from Movies				
1. movies are all right, but a few of them give the rest a bad name	02	-09	-81	11
2. I like to see other people enjoy the movies whether I enjoy them or not	-19	00	-70	10
Factor IV Affect Towards Movies				
1. I am tired by movies, I have seen too many bad ones	-00	17	-20	-82
2. A movie once in a while is a good thing for everybody	-36	15	-31	68

*A positive factor loading indicates the subject preferred the statement linked; decimal places have been omitted.

movies, in one way or another and therefore the factor was termed the Entertainment Value of Movies factor. A high loading on this factor thus represents agreement with the above statements, whereas a negative loading represents disagreement with the view that movies have high entertainment value.

Factor II had loadings on only two items, namely "I'd never miss the movies if we didn't have them", and "sometimes I feel that movies are desireable and sometimes I doubt it." Both of these items obviously relate to the Desireability of Movies and the factor was therefore termed such. Thus a high loading on this factor would indicate disagreement with the above statements and represent a positive feeling about the Desireability of Movies. A negative score on this factor would, of course, mean the opposite.

Factor III similarly loaded on only two items, "movies are all right but a few of them give the rest a bad name" and "I like to see other people enjoy the movies whether I enjoy them or not." Unfortunately, the interpretation of this factor was not as straightforward as factor II. Both items appear to represent a certain degree of distancing between the S and movies and therefore the factor was named Distance from Movies. A high loading on this would thus indicate agreement with the above statements and only a slight Distancing from Movies, whereas a high negative loading would indicate a considerable Distance from Movies and general disagreement with the above statements.

Finally, factor IV, with loadings on "I am tired of movies, I have seen too many poor ones" and "a movie once in a while is a good

thing for everyone" seems to represent a general factor of Affect Towards Movies. High loading on this factor would thus represent a tiredness towards movies due to seeing too many poor ones and a general opinion that movies are not necessarily a good thing for people to spend their time watching.

The individual Ss factor scores on the above factors were then analysed using a 2 x 2 analysis of variance with the last indices being repeated measures. The results of this stimulus channel x pre post test analysis is shown below in Table 2.

TABLE 2

Analysis of Variance of Attitude Scale Factor Scores on Stage I Ss

Source	df	Factor I	Factor II	Factor III	Factor IV
Stimulus channel (sc)	1				
Pre post test (pp)	1	3.786*		2.714	2.528
sc x pp	1			4.589**	

*P ≤ .05
**P ≤ .10

The only significant effect found was a stimulus channel x pre post interaction on the Distance From Movies factor (Factor III), ($F = 4.589$ $P \leq .05$). This interaction is shown in Figure 1.

As can be seen, there is an inexplicable initial difference between the two stimulus groups on their attitudes before stimulus presentation. The A stimulus channel group showed a definite (Newman-Keuls $F = 2.979$ $P \leq .10$) increased separation of personal distance from the topic of movies, as opposed to the AV presentation group on the pre test. The fact that the A presentation group showed a significant attitude shift towards the movies (Newman-Keuls $F = 7.189$ $P \leq .025$), as an apparent result of the stimulus presentation thus cannot be clearly attributed to the superior effects of the A channel; it more likely results from the different starting position of the groups.

The interpretation that there were no noteworthy changes in attitudes was supplemented by a further stimulus channel x pre post test analysis of variance of the two items that define the Distance from Movies factor, showing no significant differences on attitude change or channels.

The data from the communication message semantic differential scale was similarly analysed for principal components, again for the purpose of reducing the data. The resulting varimax rotated components with eigenvalues greater than 1.000 measured on 40 Ss is shown in Table 3 (the criterion used for defining the main variables defining a factor was a referrence vector loading of greater than .50 and a separation of greater than .20 with all other factors). Using the

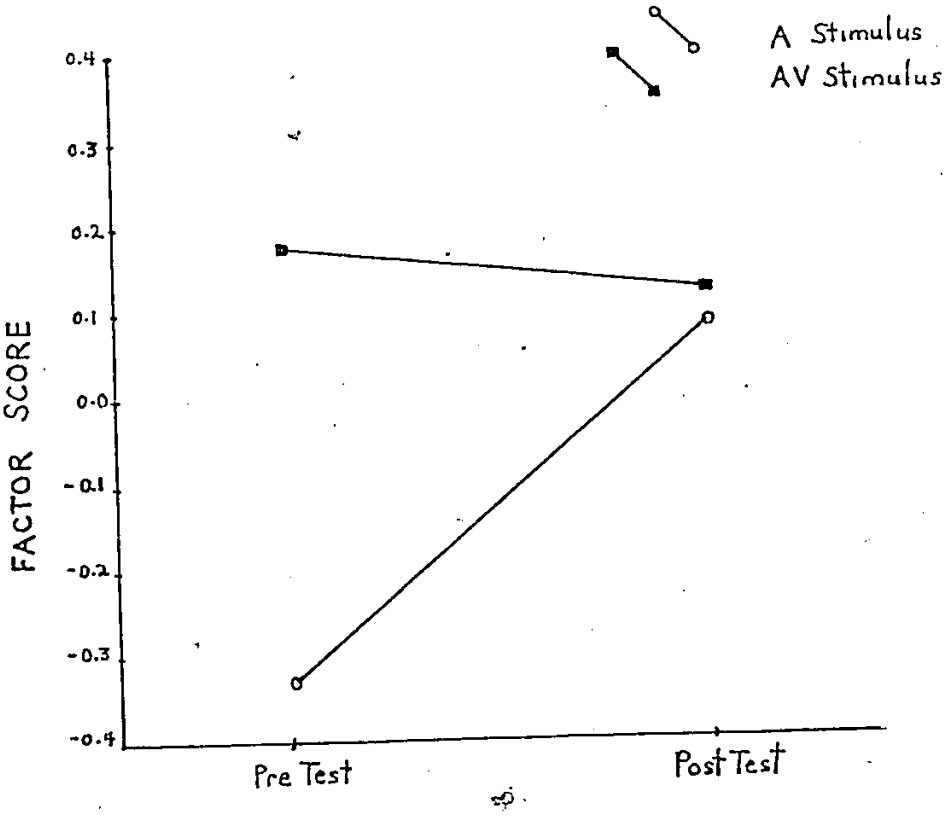

Figure 1. Attitude Scale Questionnaire interaction of stimulus channel x pre post test on the dependent factor score III—distance from movies.

TABLE 3

Varimax Rotation of the Principal Components of the Communication Message Semantic Differential Scale Items of the Stage I Ss (n=40)

	I	II	III	IV	V	VI	VII
Factor I Evaluative							
1. good--bad	-82	14	-08	02	-07	-30	15
2. stimulating--dull	-82	14	17	20	18	01	-04
3. exciting--boring	-75	11	33	06	21	-15	-17
4. persuasive--unpersuasive	-75	07	-03	-19	43	-03	-02
Factor II Complexity/Anxiety							
1. complex--simple	-03	-83	02	-01	-11	-07	-04
2. leaves me anxious--leaves me at ease	-01	-80	-17	05	25	04	-04
3. frustrates me--is not frustrating	21	-74	-31	05	-00	37	06
4. unclear--clear	26	-65	04	-31	34	-14	-03
Factor III Ambiguity of Desired Response							
1. leaves me uncertain of what to think and do--makes it clear as to what to think and do	14	-16	-83	01	-31	-11	-03
2. not sure as to how I was to respond--certain as to how I was to respond	18	-23	-80	10	27	-03	-14
Factor IV Wishy-washy Vagueness							
1. vague--definite	17	-03	15	-79	08	-04	17
2. passive--active	05	-13	-21	-77	-22	27	-00
Factor V Degree of Direction							
1. directed--aimless	00	13	01	08	-89	-06	07
Factor VI Unexaggeration							
1. unexaggerated--exaggerated	-12	02	-24	20	-01	-80	21
Factor VII Duration							
1. short--long	-09	05	-09	08	08	10	-92
Mixed							
1. pleasant--unpleasant	-46	32	-07	03	-23	-09	50
2. objective--biased	-23	13	-63	-25	16	-03	50
3. weak--strong	59	04	-12	-64	11	-02	-08
4. credible--unbelievable	-49	25	02	21	-42	-22	17
5. agree--disagree	-51	-09	06	-03	-14	-72	-04
6. hard to interpret what was meant--easy to interpret what was meant	32	-51	-52	-20	04	-32	-03
7. had trouble concentrating on the message--had no trouble concentrating on message	23	-54	-42	-31	-06	-36	-05

Factor I Evaluative							
1. good--bad	-82	14	-08	02	-07	-30	15
2. stimulating--dull	-82	14	17	20	18	01	-04
3. exciting--boring	-75	11	33	06	21	-15	-17
4. persuasive--unpersuasive	-75	07	-03	-19	43	-03	-02
Factor II Complexity/Anxiety							
1. complex--simple	-03	-83	02	-01	-11	-07	-04
2. leaves me anxious--leaves me at ease	-01	-80	-17	05	25	04	-04
3. frustrates me--is not frustrating	21	-74	-31	05	-00	37	06
4. unclear--clear	26	-65	04	-31	34	-14	-03
Factor III Ambiguity of Desired Response							
1. leaves me uncertain of what to think and do--makes it clear as to what to think and do	14	-16	-83	01	-31	-11	-03
2. not sure as to how I was to respond--certain as to how I was to respond	18	-23	-80	10	27	-03	-14
Factor IV Wishy-washy Vagueness							
1. vague--definite	17	-03	15	-79	08	-04	17
2. passive--active	05	-13	-21	-77	-22	27	-00
Factor V Degree of Direction							
1. directed--aimless	00	13	01	08	-89	-06	07
Factor VI Unexaggeration							
1. unexaggerated--exaggerated	-12	02	-24	20	-01	-80	21
Factor VII Duration							
1. short--long	-09	05	-09	08	08	10	-92
Mixed							
1. pleasant--unpleasant	-46	32	-07	03	-23	-09	50
2. objective--biased	-23	13	-63	-25	16	-03	50
3. weak--strong	59	04	-12	-64	11	-02	-08
4. credible--unbelievable	-49	25	02	21	-42	-22	17
5. agree--disagree	-51	-09	06	-03	-14	-72	-04
6. hard to interpret what was meant--easy to interpret what was meant	32	-51	-52	-20	04	-32	-03
7. had trouble concentrating on the message--had no trouble concentrating on message	23	-54	-42	-31	-06	-36	-05

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted

above criterion, 15 variables were found to load primarily on one and only one factor and 7 variables were found to have mixed loadings.

Factor I was defined by the terms good, stimulating, exciting, persuasive, strong, and agree. It was therefore called Evaluation.

Factor II was defined by terms referring to the complexity of the message and the subsequent anxiety invoked in the receivers. It was, therefore, named Complexity/Anxiety.

Factor III was defined by items pertaining to the lack of clarity of the message's desired response from the recipients and was thus termed Ambiguity of Desired Response.

Factor IV was defined by terms concerning the lack of action, definition and strength in the message and was therefore termed Wishy-washy Vague.

Factors V, VI and VII loaded clearly on one and only one item, thus suggesting the names Degree of Direction, Unexaggeration and Duration respectively.

Multivariate and univariate analysis of the difference between the A and AV presentation groups seen in Table 4, were not significant.

The eighteen item communication channel semantic differential was also analysed by the principal components method for both A and AV stimulus presentation groups together. The five factors resulting from the varimax rotation are presented in Table 5 and were named Negative Aesthetic Involvement, Privacy/Security, Negative Practical Evaluation, Importance and Direction. As before, the resulting factor scores were analysed using univariate and multivariate analysis of variance to test for channel differences. No significance was found, as shown in Table 6.

TABLE 4

Univariate and Multivariate Analysis of Variance

for Stimulus Channel Effects on the Message

Semantic Differential Scale Factor Scores the Stage I Ss

Factor	df	Univariate F	Multivariate F
I	1		
II	1		
III	1		
IV	1	2.528	
V	1		
VI	1		
VII	1		

TABLE 5

Varimax Rotation of the Principal Components of the Communication Channel Semantic Differential Scale Items of the Stage I Ss

	Factors				
	I	II	III	IV	V
Factor I Negative Aesthetic Involvement					
1. passive--active	-79	-05	-13	-15	17
2. ugly--beautiful	-74	18	09	38	07
3. makes me tired--does not tire me	-72	12	-12	-07	29
4. colourless--colourful	-57	-27	-23	01	15
Factor II Privacy/Security					
1. safe--dangerous	13	-85	24	-11	29
2. makes me feel I am in private--makes me feel other people are constantly aware of what I am doing	-15	-72	-21	-13	-28
3. private--public	08	-71	18	28	35
Factor III Negative Practical Evaluation					
1. useless--useful	14	15	-84	02	10
2. bad--good	-27	-15	-83	08	-05
3. unpleasant--pleasant	-22	14	-78	15	02
Factor IV Importance					
1. important--unimportant	01	-03	41	-81	-07
Factor V Direction					
1. directed--aimless	20	12	-07	11	-82
2. direct--indirect					
Mixed					
1. clear--not clear	00	-02	58	57	-21
2. satisfied me--does not satisfy me	38	-22	58	-07	-41
3. enjoyable--not enjoyable	49	09	40	-10	-53
4. credible--unbelievable	32	08	50	07	-47
5. secure--insecure	63	-54	13	-01	-18

Varimax Rotation of the Principal Components of the Communication Channel

Semantic Differential Scale Items of the Stage I Ss

	Factors				
	I	II	III	IV	V
Factor I Negative Aesthetic Involvement					
1. passive--active	-79	-05	-13	-15	17
2. ugly--beautiful	-74	18	09	38	07
3. makes me tired--does not tire me	-72	12	-12	-07	29
4. colourless--colourful	-57	-27	-23	01	15
Factor II Privacy/Security					
1. safe--dangerous	13	-85	24	-11	29
2. makes me feel I am in private--makes me feel other people are constantly aware of what I am doing	-15	-72	-21	-13	-28
3. private--public	08	-71	18	28	35
Factor III Negative Practical Evaluation					
1. useless--useful	14	15	-84	02	10
2. bad--good	-27	-15	-83	08	-05
3. unpleasant--pleasant	-22	14	-78	15	02
Factor IV Importance					
1. important--unimportant	01	-03	41	-81	-07
Factor V Direction					
1. directed--aimless	20	12	-07	11	-82
2. direct--indirect					
Mixed					
1. clear--not clear	00	-02	58	57	-21
2. satisfies me--does not satisfy me	38	-22	58	-07	-41
3. enjoyable--not enjoyable	49	09	40	-10	-53
4. credible--unbelievable	32	08	50	07	-47
5. secure--insecure	63	-54	13	-01	-18

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted.

TABLE 6

Univariate and Multivariate Analysis of Variance for Stimulus Channel Effects on the Stimulus Channel Semantic Differential Scale Factor Scores of the Stage I Ss

Factor	df	Univariate F	Multivariate F
I	1		
II	1		
III	1		1.096 (df 5, 34)
IV	1	2.504	
V	1	1.707	

The final 28 item semantic differential scale administered in this series was on the Ss's perception of the communicator or speaker. Principal component analysis was again conducted as with the earlier semantic differentials on the message and channel. Seven factors appeared after varimax rotation, namely Emphathic Evaluation, Aesthetic Complexity and Expertise, Persuasion/Experience, Delivery Evaluation, Objectivity, Comprehension and Interest, and Negative Affect (of the speaker). The factor scores of the Ss on the above factor scores were then analysed using univariate and multivariate analysis of variance to test for differences in the perceptions of the speaker between the two stimulus presentation groups. As with the earlier semantic differential scales, no significant differences were found (see Table 8).

A final analysis was made on all the above semantic differential scale factor scores including message, channel and speaker. All of the above were combined and a multivariate analysis of variance was performed on the data. The overall F found for stimulus channel differences in the one-way presentation of a persuasive communication did not result in any differences worthy of note.

Section 2:

Effects of Encoding and Transmitting the Message Using a Two-way Channel

The semantic differential scales rating the A and AV channels of two-way communication were also analysed by the principal component method using varimax rotation, again to reduce the data. Each S required to fill in two identical scales, one rating the A channel of two-way communication from a user's viewpoint, and one for the AV channel.

TABLE 7

Varimax Rotation of the Principal Components of the Communicator or Speaker Semantic Differential Scale Items of the Stage I Ss (n=40)

	Factors						
	I	II	III	IV	V	VI	VII
Factor I Empathic Evaluation							
1. friendly--unfriendly	-79	00	00	-23	01	03	24
2. can identify with him--cannot identify with him	-75	01	-14	05	01	06	23
3. pleasant--unpleasant	-73	-22	-02	-20	-06	-16	27
4. liked--disliked	-70	01	-08	-30	-15	-38	-09
5. good--bad	-65	-35	-44	06	-06	-26	16
6. warm--cold	-63	-13	08	06	-39	-22	33
Factor II Aesthetic Complexity and Expertise							
1. beautiful--ugly	-19	-76	07	03	-41	-03	-05
2. complex--simple	04	-73	-01	-32	19	39	-02
3. knowledgeable--ignorant	-03	-70	-30	12	-03	00	03
Factor III Persuasive/Experiential							
1. experienced--inexperienced	01	-12	-83	-20	-04	-05	-03
2. persuasive--unpersuasive	-19	-20	-79	22	-12	-03	27
Factor IV Delivery Evaluation							
1. he did not sense how I was reacting--he sensed how I was reacting	-06	-18	28	-69	-04	27	-05
2. credible--unbelievable	-28	20	-30	-64	-10	-21	22
Factor V Objectivity							
1. objective--biased	-11	-09	-16	-06	-88	11	-03
Factor VI Comprehension and Interest							
1. understandable--not understandable	-11	22	12	-08	09	-78	18
Factor VII Negative Affect of Speaker							
1. I never understood his position--I clearly understood his position	19	-03	-05	02	-30	21	-75
2. unemotional--emotional	25	-04	10	19	17	22	-72
Mixed							
1. active--passive	-42	12	-23	-16	03	-18	54
2. weak--strong	38	-26	31	18	-00	49	-52
3. colourless--colourful	36	29	14	01	26	-03	-51
4. he frequently talked past me--he never talked past me	-08	-34	11	-04	32	40	-51
5. indifferent--concerned	13	-04	53	15	11	00	-63
6. is sensitive to others' feelings							

with him	-75	01	-14	05	01	06	23
3. pleasant--unpleasant	-73	-22	-02	-20	-06	-16	27
4. liked--disliked	-70	01	-08	-30	-15	-38	-09
5. good--bad	-65	-35	-44	06	-06	-26	16
6. warm--cold	-63	-13	08	06	-39	-22	33
Factor II Aesthetic Complexity and Expertise							
1. beautiful--ugly	-19	-76	07	03	-41	-03	-05
2. complex--simple	04	-73	-01	-32	19	39	-02
3. knowledgeable--ignorant	-03	-70	-30	12	-03	00	03
Factor III Persuasive/Experiential							
1. experienced--inexperienced	01	-12	-83	-20	-04	-05	-03
2. persuasive--unpersuasive	-19	-20	-79	22	-12	-03	27
Factor IV Delivery Evaluation							
1. he did not sense how I was reacting--he sensed how I was reacting	-06	-18	28	-69	-04	27	-05
2. credible--unbelievable	-28	20	-30	-64	-10	-21	22
Factor V Objectivity							
1. objective--biased	-11	-09	-16	-06	-88	11	-03
Factor VI Comprehension and Interest							
1. understandable--not understandable	-11	22	12	-08	09	-78	18
Factor VII Negative Affect of Speaker							
1. I never understood his position--I clearly understood his position	19	-03	-05	02	-30	21	-75
2. unemotional--emotional	25	-04	10	19	17	22	-72
Mixed							
1. active--passive	-42	12	-23	-16	03	-18	54
2. weak--strong	38	-26	31	18	-00	49	-52
3. colourless--colourful	36	29	14	01	26	-03	-51
4. he frequently talked past me--he never talked past me	-08	-34	11	-04	32	40	-51
5. indifferent--concerned	13	-04	53	15	11	00	-63
6. is sensitive to other's feelings--is insensitive to other's feelings	-54	12	15	-12	23	01	61
7. I had the feeling he was never talking directly to me--I felt he was speaking directly to me	52	37	49	07	15	13	-05
8. self-assurred--unsure of self	-00	-08	-48	66	-03	36	10
9. boring--interesting	40	-15	26	-17	-07	-62	-43
10. dull--stimulating	43	-03	34	-13	-10	-59	-43

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted.

TABLE 8

Univariate and Multivariate Analysis of Variance for Stimulus Channel Effects on the Perception of the Speaker Semantic Differential Scale Factor Scores of the Stage I Ss

Factor	df	Univariate F	Multivariate F
I	1		
II	1	1.357	
III	1		
IV	1		
V	1		
VI	1	1.763	
VII	1		

For purposes of analysis, both nineteen item scales were headed repeated measures and combined in the analysis to yield eighty cases. The final rotated factor matrix is shown in Table 9.

Four clear factors were extracted with only five variables showing mixed loadings. Factor I loaded clearly on 8 items, namely "good-bad", "useful-useless", "active-passive", "strong-weak", "direct-indirect", "pleasant-unpleasant", "satisfies me-does not satisfy me" and "enjoyable-not enjoyable", with a mixed loading on "colourful-colourless" and "important-unimportant." The important defining words in the above are good, useful, active, strong, direct, pleasant, satisfy me, enjoyable, colourful and important, all of which refer to the positive evaluative judgment of the channel. The factor was thus termed Evaluative.

Factor II had loadings only on the item "makes me feel like I am in private-makes me feel other people are constantly aware of what I am doing" and "private-public," with partial loading on "secure-insecure." All of the above items are related to the individual privacy afforded a channel of communication, with an emphasis on privacy and so the factor was called simply, Privacy.

Factor III also had loadings on only two items, "dangerous-safe" and "unbelievable-credible." Both of these terms can be related to the reliability or credibility of information from a particular channel and so the factor was named the Credibility/Safety factor. A high loading on this factor would thus indicate a high risk associated with believing the information received from a particular channel, whereas a large negative score would indicate a degree of safety.

TABLE 9

Varimax Rotations of the Principal Components of the Users Evaluation of Both the A and AV Channels of Two-way Communication of the Stage 1 Ss (n = 40 subjects: 2 repetitions per subject yield 80 cases)

	I	II	III	IV
Factor I Evaluation				
1. good - bad	-84	23	32	07
2. useful - useless	-83	12	39	-11
3. active - passive	-81	09	-09	26
4. strong - weak	-77	12	08	24
5. direct - indirect	-76	15	08	04
6. pleasant - unpleasant	-74	-16	04	14
7. satisfies me - does not satisfy me	-70	-11	40	30
8. enjoyable - not enjoyable	-65	-17	37	32
Factor II Privacy				
1. makes me feel like I am in in private - makes me feel other people are constantly aware of what I am doing	19	-81	-02	-09
2. private - public	12	-79	-03	-20
Factor III Credibility/Safety				
1. dangerous - safe	-08	24	-74	-08
2. unbelievable - credible	33	-17	-58	-11
Factor IV Dyadic Evaluation				
1. I felt the other person was uncertain whether I was listening or not - I felt the other person was certain I was listening	-01	-18	-11	-65
2. suitable only for common gossip - suitable for discussions with close, intimate friends	35	12	-06	-62
Mixed				
1. secure - insecure	-43	-61	38	16
2. makes me tired - does not tire me	15	-18	-42	-61
3. colorful - colorless	-56	15	-14	48
4. beautiful - ugly	-42	-02	49	37
5. important - unimportant	-64	12	48	12

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted.

TABLE 9

Varimax Rotations of the Principal Components of the Users Evaluation of Both the A and AV Channels of Two-way Communication of the Stage 1 Ss (n = 40 subjects: 2 repetitions per subject yield 80 cases)

	I	II	III	IV
Factor I Evaluation				
1. good - bad	-84	23	32	07
2. useful - useless	-83	12	39	-11
3. active - passive	-81	09	-09	26
4. strong - weak	-77	12	08	24
5. direct - indirect	-76	15	08	04
6. pleasant - unpleasant	-74	-16	04	14
7. satisfies me - does not satisfy me	-70	-11	40	30
8. enjoyable - not enjoyable	-65	-17	37	32
Factor II Privacy				
1. makes me feel like I am in in private - makes me feel other people are constantly aware of what I am doing	19	-81	-02	-09
2. private - public	12	-79	-03	-20
Factor III Credibility/Safety				
1. dangerous - safe	-08	24	-74	-08
2. unbelievable - credible	33	-17	-58	-11
Factor IV Dyadic Evaluation				
1. I felt the other person was uncertain whether I was listening or not - I felt the other person was certain I was listening	-01	-18	-11	-65
2. suitable only for common gossip - suitable for discussions with close, intimate friends	35	12	-06	-62
Mixed				
1. secure - insecure	-43	-61	38	16
2. makes me tired - does not tire me	15	-18	-42	-61
3. colorful - colorless	-56	15	-14	48
4. beautiful - ugly	-42	-02	49	37
5. important - unimportant	-64	12	48	12

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted.

Factor IV was also found to load primarily on only two items, "I felt the other person was uncertain whether I was listening or not-I felt the other person was certain I was listening" and "suitable only for common gossip-suitable for discussions with close intimate friends", combined with a mixed loading on "makes me tired-does not tire me." These terms are obviously related to an evaluation of the use of a channel for dyadic discussions and the factor was therefore termed Dyadic Evaluation. A high score on this factor would indicate a channel that is relatively inadequate for carrying out interpersonal discussions, whereas a high negative loading would indicate the opposite.

The factor scores of the individual Ss on the above four factors were then analysed using a 2 x 2 x 2 analysis of variance with repeated measures on the last indices. This stimulus channel x order of communicating x user channel of communication analysis is shown in Table 10.

Several striking differences were found. The channel Evaluation factor showed a highly significant difference between the two user channels of communication ($F = 22.088$ $P \leq .001$). The AV channel of communication use was seen as highly positive and good (mean = 0.424), whereas the A only channel was rated as being more negative, bad and useless (mean = -0.424). Similarly, on the Privacy factor, there were significant differences between the two channels of communication use, the A channel being rated as more private and secure (mean = 0.425) than was the AV channel (mean = -0.425). This factor also showed an interesting stimulus channel x user channel interaction, which is shown in Figure 2.

TABLE 10

Analysis of Variance of Stimulus Channel x Order of Communication x Channel of Communication Use of Stage I Ss on User Channel of Communication Factor Scores

Source	df	I	II	III	IV
Stimulus Channel (sc)	1		1.713	1.363	
Order of Communication (o)	1				
User Channel (uc)	1	22.088***	17.313***		3.582*
sc x o	1	1.246		1.816	
sc x uc	1		5.766**		
o x uc	1				1.055
sc x o	1			3.664*	1.274
sc x o x uc	1				

*P ≤ .100
**P ≤ .025
***P ≤ .001

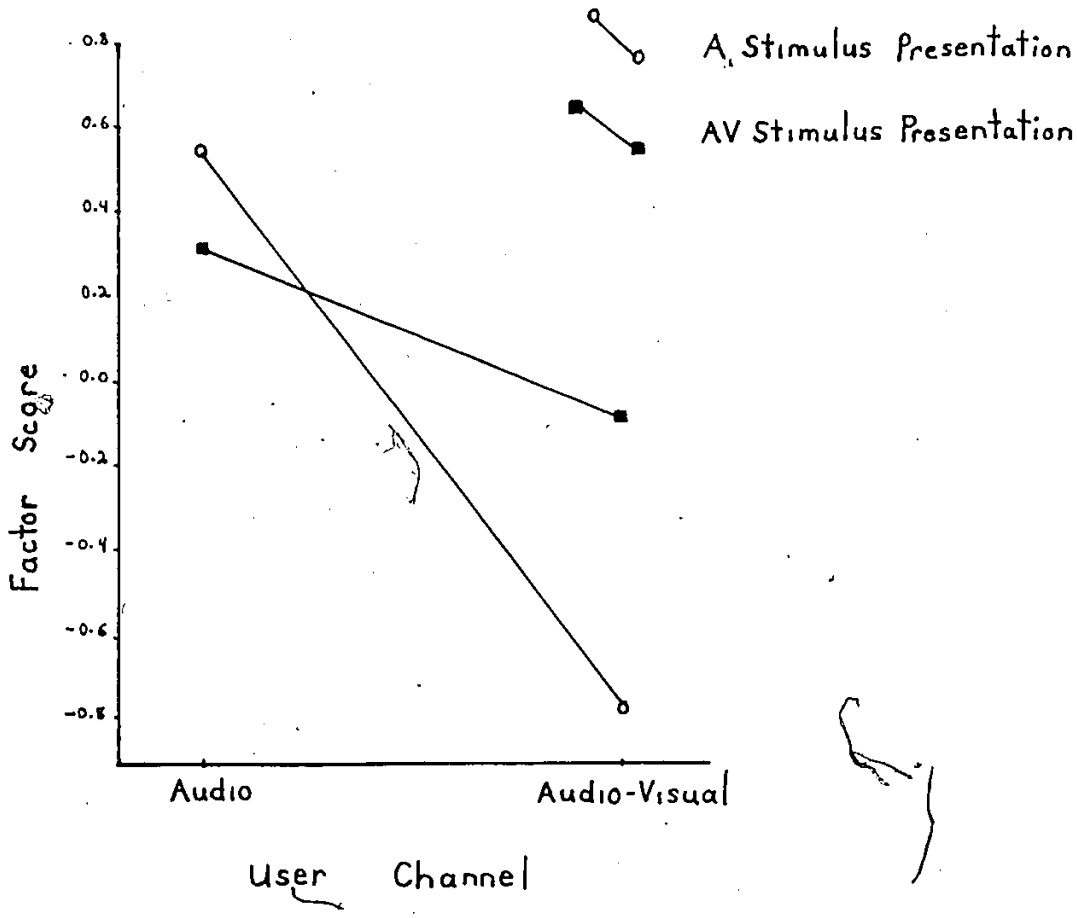

Figure 2. User Channel of Communication scale interaction between Stimulus Channel and User Channel on the Privacy Factor (Factor II).

The two user channels of communication were rated as being significantly different in terms of Privacy by the A stimulus presentation group (Newman-Keuls $F = 21.538$ $P \leq .001$), but not by the AV stimulus presentation group (Newman-Keuls $F = 1.549$ ns.). Also, there was an overall difference in the Privacy evaluation of the AV user channel between both stimulus presentation groups (Newman-Keuls $F = 14.668$ $P \leq .001$), with the A stimulus presentation group indicating a much less private and more public evaluation of the AV user channel (mean = -0.799) than the AV stimulus presentation group (mean = -0.050). In other words, it appears that the channel used in presenting a stimulus has a considerable effect on the evaluation of the different user channels of communication that are used in retransmitting that stimulus.

A further analysis of the raw score items of the user semantic differential was made in an attempt to further clarify the differences illustrated above. The items were analysed using a 2 x 2 x 2 analysis of variance design identical to that used on the factor scores earlier. All items, with the exception of the items "secure-insecure", "safe-dangerous", "I felt the other person was uncertain whether I was listening or not-I felt the other person was certain that I was listening" and "suitable for discussions with close intimate friends-suitable only for common gossip" were found to show significant differences between the two user channels of communication. This is shown in Table 11, giving the means of each significant item, along with the significance level of this difference.

TABLE 11

Means of the User Communication Channel Semantic Differential Items and Factor Scores Between the Two User Channels of Communication of the Stage I Ss

Factors and Items	Item Means		Factor Score Means	
	Channel of Use		Channel of Use	
	A	AV	A	AV
Factor I Evaluative				
good--bad	3.475	2.375****		
useful--useless	3.025	2.100****		
active--passive	3.800	2.375****		
strong--weak	3.075	1.725****	-0.424	0.424****
direct--indirect	3.375	2.175****		
pleasant--unpleasant	4.000	3.325**		
satisfies me--does not satisfy me	4.300	3.325***		
enjoyable--not enjoyable	4.200	3.400***		
Factor II Privacy				
makes me feel like I am in private--makes me feel other people are constantly aware of what I am doing	2.252	4.725****		
private--public	3.275	4.225***	0.425	-0.425****
Factor III Credibility/Safety				
dangerous--safe	4.350	3.975		
unbelievable--credible	3.825	4.600***	-0.052	0.051
Factor IV Dyadic Evaluation				
I felt the other person was uncertain whether I was listening or not--I felt the other person was certain I was listening	3.925	4.425		
suitable only for common go gossip--suitable for discussion with close, intimate friends	3.075	3.575	0.178	-0.178
Mixed				
secure--insecure	3.800	4.250		
makes me tired--does not tire me	4.300	4.975***		
colorful--colorless	5.000	3.325****		
beautiful--ugly	4.150	3.775***		
important--unimportant	3.225	2.450****		

Factors and Items	Item Means		Factor Score Means	
	Channel of Use		Channel of Use	
	A	AV	A	AV
Factor I Evaluative				
good--bad	3.475	2.375****		
useful--useless	3.025	2.100****		
active--passive	3.800	2.375****		
strong--weak	3.075	1.725****	-0.424	0.424****
direct--indirect	3.375	2.175****		
pleasant--unpleasant	4.000	3.325**		
satisfies me--does not satisfy me	4.300	3.325***		
enjoyable--not enjoyable	4.200	3.400***		
Factor II Privacy				
makes me feel like I am in private--makes me feel other people are constantly aware of what I am doing	2.252	4.725****		
private--public	3.275	4.225***	0.425	-0.425****
Factor III Credibility/Safety				
dangerous--safe	4.350	3.975		
unbelievable--credible	3.825	4.600***	-0.052	0.051
Factor IV Dyadic Evaluation				
I felt the other person was uncertain whether I was listening or not--I felt the other person was certain I was listening	3.925	4.425		
suitable only for common go gossip--suitable for discussion with close, intimate friends	3.075	3.575	0.178	-0.178
Mixed				
secure--insecure	3.800	4.250		
makes me tired--does not tire me	4.300	4.975***		
colorful--colorless	5.000	3.325****		
beautiful--ugly	4.150	3.775***		
important--unimportant	3.225	2.450****		

*P ≤ .10
**P ≤ .05
***P ≤ .01
****P ≤ .001

*The lower the score the greater the preference for the first term of the bi-polar scale (4.0 = neutral). Some items have been reflected to agree with their factor loadings on the first term of the bi-polar scales.

A significant stimulus channel effect was found on the Factor II item, "private-public" at the .05 level ($F = 4.220$ $P \leq .05$). The A stimulus presentation group tended to be rather neutral on rating this item (mean = 4.150), whereas the AV stimulus presentation group tended to rate it as more private (mean = 3.350). This difference was obviously present in the composite factor score analysis of the interaction between stimulus channel and user channel on the Privacy Factor, but this particular effect was not significant on the factor score. This was probably due to different trends and/or responses on the other composite items of the Privacy Factor. The Factor I item, "satisfied me-does not satisfy me," also showed a significant interaction effect, this time between stimulus presentation and order of communication use ($F = 4.491$ $P \leq .05$). The A stimulus presentation group found an AV followed by an A channel more satisfying (Newman-Keuls $F = 4.457$ $P \leq .05$), whereas the AV stimulus presentation group found an AV followed by an A channel of communication use more satisfying (Newman-Keuls $F = 4.061$ $P \leq .10$). The latter effect was, however, not significant. In other words, both stimulus presentation groups found it more satisfying to use a channel of communication use that was different from the stimulus channel they had experienced. This is probably due to a novelty type effect in using the different channels of communication.

A final significant interaction effect was found on the item "makes me feel other people are constantly aware of what I am doing-makes me feel like I am in private," this time between stimulus channel and user channel. The interaction was almost identical to the one found on Factor II, the Privacy Factor, and shown in Figure 2. This time, however, there was a significant difference found between the two user

channels for both the A stimulus presentation group (Newman-Keuls $F = 32.527$ $P \leq .001$) and the AV stimulus presentation group (Newman-Keuls $F = 4.570$ $P \leq .05$). A significant effect was also found between the stimulus presentation groups when evaluating the AV user channel (Newman-Keuls $F = 6.739$ $P \leq .025$), but not the A user channel (Newman-Keuls $F = 2.458$ $P \leq .15$). These results are largely in agreement with the composite Privacy Factor score analysis, except that a significant difference was found for both stimulus presentation groups when they were rating differences between the two user channels of communication, although the A stimulus presentation group certainly showed a considerable greater difference.

The seven content measures extracted from the Ss communications were somewhat overlapping in nature so the results were first correlated to determine the degree of relationship between all the variables. Also, because of certain discrepancies noted between the order of communication and the user channel of communication noted above, the results were analysed both together for both communications made by each S, as well as each S's first and second communication only. The results of this are shown in Table 12.

As can be seen, there are considerable differences between the Ss's first and second communications, as well as considerable overlap between the different content measures used. In light of this, the data was analysed for principal components to determine the underlying dimensions of the seven variables. Also, because of the large differences occurring between the Ss's first and second communications, the data was separately analysed for the first and second communication.

TABLE 12

Correlation Coefficients Between the Different Content Measures Extracted from the Stage I Ss's Verbal Responses

(All Communications n=40 x 2 Communications = 80, First and Second Communications n=40)

	Words	Nonfluencies	Immediacy	Time (sec.)	Correct	Error	Equivocation
Words Spoken							
all communications	1.000						
first communication only	1.000						
second communication only	1.000						
Nonfluencies							
all communications	0.683	1.000					
first communication only	0.648	1.000					
second communication only	0.713	1.000					
Immediacy							
all communications	0.331	0.104	1.000				
first communication only	0.342	-0.071	1.000				
second communication only	0.325	0.234	1.000				
Time (sec.)							
all communications	0.698	0.714	0.123	1.000			
first communication only	0.685	0.674	0.024	1.000			
second communication only	0.710	0.744	0.191	1.000			
Mean Correct							
all communications	0.378	0.141	0.241	0.065	1.000		
first communication only	0.374	0.012	0.397	-0.075	1.000		
second communication only	0.395	0.260	0.116	0.189	1.000		
Mean Error							
all communications	0.461	0.332	0.278	0.313	0.072	1.000	
first communication only	0.271	0.173	0.162	0.052	0.171	1.000	
second communication only	0.572	0.450	0.355	0.492	-0.006	1.000	
Mean Equivocation							
all communications	0.550	0.291	0.341	0.085	0.853	0.581	1.000
first communication only	0.429	0.095	0.392	-0.043	0.892	0.594	1.000

Correlation Coefficients Between the Different Content Measures Extracted from the Stage I Ss's Verbal Responses

(All Communications n=40 x 2 Communications = 80, First and Second Communications n=40)

	Words	Nonfluencies	Immediacy	Time (sec.)	Correct	Error	Equivocation
Words Spoken							
all communications	1.000						
first communication only	1.000						
second communication only	1.000						
Nonfluencies							
all communications	0.683	1.000					
first communication only	0.648	1.000					
second communication only	0.713	1.000					
Immediacy							
all communications	0.331	0.104	1.000				
first communication only	0.342	-0.071	1.000				
second communication only	0.325	0.234	1.000				
Time (sec.)							
all communications	0.698	0.714	0.123	1.000			
first communication only	0.685	0.674	0.024	1.000			
second communication only	0.710	0.744	0.191	1.000			
Mean Correct							
all communications	0.378	0.141	0.241	0.065	1.000		
first communication only	0.374	0.012	0.397	-0.075	1.000		
second communication only	0.395	0.260	0.116	0.189	1.000		
Mean Error							
all communications	0.461	0.332	0.278	0.313	0.072	1.000	
first communication only	0.271	0.173	0.162	0.052	0.171	1.000	
second communication only	0.572	0.450	0.355	0.492	-0.006	1.000	
Mean Equivocation							
all communications	0.550	0.291	0.341	0.085	0.853	0.581	1.000
first communication only	0.429	0.095	0.392	-0.043	0.892	0.594	1.000
second communication only	0.654	0.474	0.300	0.440	0.813	0.577	1.000

The varimax rotated principal components are shown in Tables 13 and 14 for Ss's first and second communication separately.

The differences between the factors and loadings extracted from the Ss's first and second communication was amazing. Whereas factors from the first communication were fairly straightforward and easily interpreted, those in the second communication were mixed, had many multiple loadings and were generally difficult to interpret. It is highly likely that these differences reflect possible effects of retention problems, as well as a loss of interest and attention in repeating the first communication. For this reason, all further analysis focussed entirely on the Ss's first communication only and avoided the obvious contaminated effects of the second repeated measures communication.

Focussing on the factor analysis of the Ss's first communication only, two simple factors were extracted. Factor I, with loadings on mean equivocation, mean correct, verbal non-immediacy, and mean error appears to relate to the information content of thecommunication, rather than its duration. Verbal immediacy however, appears somewhat incongruent in this category, but it must be remembered that verbal immediacy is a measure of the Ss's immediacy towards the topic of her conversation, as well as the person she is discussing it with. In this case, the bulk of the immediacy score is made up of immediacy expressed for the topic rather than the communication partner. Also, an accurate reporting of the original stimulus would necessarily involve the use of the past tense, thereby increasing the immediacy score for the conversation. The presence of mean error and mean equivocation also

TABLE 13

Varimax Rotations of the Principal Components of the Seven Content Measures Used on the Stage I Ss's First Communication (n=40)

	Factors	
	I	II
Factor I Content of Speech		
1. mean equivocation	96	05
2. mean correct	88	-03
3. verbal immediacy	61	01
4. mean error	55	16
Factor II Duration of Speech		
1. time (in seconds)	-08	91
2. nonfluencies	01	89
3. words spoken	45	82

TABLE 14

Varimax Rotations of the Principal Components of the Seven Content Measures Used on the Stage I Ss's Second Communication (n=40)

	Factors	
	I	II
Factor I		
1. time (seconds)	84	13
2. words spoken	81	40
3. nonfluencies	81	22
4. mean error	79	04
Factor II		
1. mean correct	02	99
2. mean equivocation	47	81
Mixed		
1. verbal immediacy	45	10

showing a positive loading with the mean correct is also unusual but nevertheless, all items are related to the content of the discussion and the factor was thus named the Content Factor. A high loading on this Content of Speech Factor would indicate a fairly accurate account of the original presentation, but with a large amount of equivocation or information loss and errors. On the other hand, a high negative loading would indicate a poor but immediate account with little correct content, as well as little equivocation and few errors.

Factor II loaded on the variables time, nonfluencies and number of words spoken. All of the above relate to a temporal dimension, as all variables are largely dependent on the duration of time speaking. The factor was therefore termed the Duration of Speech Factor.

The above factor scores were then analysed using a 2 x 2 factorial analysis of variance, the results of which are shown below in Table 15. The only significant effect found was the main effect of the user channel of communication on the content factor. The AV user channel was found to have a positive content (mean = 0.373) with relatively accurate recall, non-immediate phrasing and little equivocation. The A user channel was the opposite with little correct recall, immediate phrasing and few errors (mean = -0.373).

The exact relationship between the number of errors, equivocation and mean correct in the above significant effect was difficult to determine exactly, so again recourse was made to the original individual measures that composed the factors. The raw content data scores were therefore analysed using a 2 x 2 factorial analysis of variance, the results of which are shown in Table 16.

TABLE 15

Analysis of Variance of Stimulus Channel x User Channel of Communication for Content Data Factor Scores on the Stage I Ss First Communication (n=40)

Source	df	Factor	
		Content	Duration
Stimulus Channel (sc)	1		1.469
User Channel (uc)	1	4.894**	
sc x uc	1	1.621	1.441

**$p \leq .05$

TABLE 16

Analysis of Variance of the STimulus Channel x User Channel of Communication for the Individual Content Measures Made on the Ss's First Communication (n = 40)

Source	df	Immediacy	Correct	Error	Equivocation
Stimulus Channel (sc)	1	2.449			
User C Channel (uc)	1	4.188**	4.997**		2.985*
sc x uc	1	2.449	1.127	1.536	1.029

*P ≤ .10
**P ≤ .05

As can be seen, significant differences between the two user channels were obtained for the independent variables verbal immediacy and mean correct, and the mean equivocation variable approached significance. The measure of mean error showed no significant differences whatsoever. As mentioned before, the AV channel was less immediate in phrasing (mean = 15.900) and had more correct (mean = 6.038) than did the A channel (immediacy mean = 12.50, mean correct = 4.550). The mean equivocation also approached significance for this effect also with a greater degree of information loss or equivocation shown while using the A channel (mean = 32.312), than while using the AV channel (mean = 30.847).

Section 3:

Evaluation of the Above Two-way Communication by Independent Ss

The final stage of the experiment involved playing back the tapes of the earlier stage I Ss's verbal communications to a final group of decoding Ss (stage II Ss). The stage II Ss then rated each presentation on the same attitude change questionnaire and message, channel and speaker semantic differential scales as were administered to the stage I Ss. The data from these were also analysed for Principal Components, in order to reduce the data and the resultant varimax rotated components are shown in Tables 17, 18, 19 and 20 respectively. Very few of the factors extracted in the stage I analysis were replicated. This is, however, hardly surprising in that the stage II Ss were rating forty different speakers on eighty different messages, often with greatly differring themes and always with different content. The one exception to this was the attitude change questionnaire which replicated almost perfectly with the same identifyable factors extracted in both stages.

The resulting factor score output from the above analysis was then analysed using an analysis of variance. The attitude scale was analysed using a 2 x 2 x 2 x 2 design with the last index being repeated measures. This stimulus channel x order x user channel x pre post test analysis is shown in Table 21. The semantic differential scales were similarly analysed, this time using a 2 x 2 x 2 univariate and multivariate design. This stimulus channel x order x user channel analysis for all the semantic differential factor scores of the stage II Ss is shown in Table 22. None of the Fs were significant, and few even approached

TABLE 17

Varimax Rotations of the Principal Components of the
Attitude Scale Items Repeated pre and post Stimulus of the Stage II Ss
(n = 80 subjects: 2 repetitions per subject yield 80 cases)

	Factors			
	I	II	III	IV
Factor I				
1. the movies are good clean entertainment	-82	-06	26	03
2. a movie is the best entertainment that can be obtained cheaply	-71	-21	-07	30
3. movies are just a harmless pastime	-62	27	-38	07
Factor II				
1. sometimes I feel the movies are desireable and sometimes I doubt it	06	79	01	25
2. I'd never miss the movies if we didn't have them	-08	74	-11	-37
Factor III				
1. I'd like to see other people enjoy movies whether I enjoy them or not	-18	-12	-81	-02
2. movies are all right, but a few of them give the rest a bad name	24	21	-78	-02
Factor IV				
1. a movie once in a while is a good thing for everybody	-12	02	-22	82
2. I am tired of movies, I have seen too many poor ones	12	01	-29	-74
Mixed				
1. I like the movies as they are because I go to be entertained, not educated	-68	52	-02	-02

TABLE 18

Varimax Rotation of the Principal Components of the Communication Message Semantic Differential Scale Items of the Stage II Ss (n=80)

	Factors						
	I	II	III	IV	V	VI	VII
Factor I							
1. good--bad	-86	-04	-17	-23	-16	-13	08
2. active--passive	-84	02	-04	-04	08	-04	01
3. persuasive--unpersuasive	-71	36	05	-12	-27	17	30
4. pleasant--unpleasant	-69	-20	-12	-41	-00	01	-29
5. weak--strong	69	-09	00	38	18	-05	-32
6. dull--stimulating	66	41	-09	40	07	01	-31
Factor II							
1. frustrates me--does not frustrate me	04	86	-06	-21	17	-08	18
2. hard to interpret what was meant--easy to interpret what was meant	-07	80	-03	30	19	18	04
Factor III							
1. exaggerated--unexaggerated	04	02	86	-06	-06	10	20
2. agree--disagree	-06	17	-69	-36	-12	10	18
Factor IV							
1. aimless--directed	24	04	22	76	15	21	06
2. definite--vague	-25	06	01	-72	-03	21	18
3. clear--not clear	-38	-17	08	-60	00	-28	-13
Factor V							
1. leaves me uncertain as to what to think and do--makes it clear as to what to think and do	15	16	-01	20	82	08	13
2. certain as to how I was to respond to the message--not sure as to how I was to respond to the message	-28	-40	-24	-05	-68	-21	08
Factor VI							
1. long--short	03	-01	-06	11	17	88	-03
2. objective--biased	06	-32	-26	36	11	-58	-03
Factor VII							
1. complex--simple	-22	18	14	01	10	03	84
Mixed							
1. boring--exciting	61	38	16	42	20	02	-24
2. credible--unbelievable	-25	-17	-48	-64	-16	12	-04
3. leaves me anxious--leaves me at ease	-20	06	-40	-09	54	-13	53
4. had trouble concentrating on message							

1. good--bad	-86	-04	-17	-23	-16	-13	08
2. active--passive	-84	02	-04	-04	08	-04	01
3. persuasive--unpersuasive	-71	36	05	-12	-27	17	30
4. pleasant--unpleasant	-69	-20	-12	-41	-00	01	-29
5. weak--strong	69	-09	00	38	18	-05	-32
6. dull--stimulating	66	41	-09	40	07	01	-31
Factor II							
1. frustrates me--does not frustrate me	04	86	-06	-21	17	-08	18
2. hard to interpret what was meant--easy to interpret what was meant	-07	80	-03	30	19	18	04
Factor III							
1. exaggerated--unexaggerated	04	02	86	-06	-06	10	20
2. agree--disagree	-06	17	-69	-36	-12	10	18
Factor IV							
1. aimless--directed	24	04	22	76	15	21	06
2. definite--vague	-25	06	01	-72	-03	21	18
3. clear--not clear	-38	-17	08	-60	00	-28	-13
Factor V							
1. leaves me uncertain as to what to think and do--makes it clear as to what to think and do	15	16	-01	20	82	08	13
2. certain as to how I was to respond to the message--not sure as to how I was to respond to the message	-28	-40	-24	-05	-68	-21	08
Factor VI							
1. long--short	03	-01	-06	11	17	88	-03
2. objective--biased	06	-32	-26	36	11	-58	-03
Factor VII							
1. complex--simple	-22	18	14	01	10	03	84
Mixed							
1. boring--exciting	61	38	16	42	20	02	-24
2. credible--unbelievable	-25	-17	-48	-64	-16	12	-04
3. leaves me anxious--leaves me at ease	-20	06	-40	-09	54	-13	53
4. had trouble concentrating on message--had no trouble concentrating on message	25	54	-04	32	12	41	33

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted

TABLE 19

Varimax Rotation of the Principal Components of the Communication Channel Semantic Differential Scale Items of the Stage II Ss

	Factors				
	I	II	III	IV	V
Factor I					
1. pleasant--unpleasant	87	-13	12	17	10
2. satisfies me--does not satisfy me	83	-13	-09	31	09
3. enjoyable--not enjoyable	75	04	-33	38	05
4. clear--not clear	68	31	07	21	28
5. important--unimportant	67	-11	-43	07	08
6. credible--unbelievable	65	18	-06	24	35
Factor II					
1. makes me feel other people are constantly aware of what I am doing--makes me feel like I am in private	-04	-87	04	01	-04
Factor III					
1. private--public	09	-03	79	-20	31
Factor IV					
1. makes me tired--does not tire me	-18	-05	23	-81	-06
2. active--passive	24	-27	-11	79	22
3. aimless--directed	-29	-45	-17	-67	-01
Factor V					
1. safe--dangerous	22	-01	21	-01	71
Mixed					
1. useful--useless	52	-19	04	54	-35
2. direct--indirect	48	13	-30	51	09
3. good--bad	58	-30	-04	58	09
4. beautiful--ugly	49	-60	-11	21	28
5. colourful--colourless	46	-08	-66	04	24
6. secure--insecure	11	-11	-24	48	65

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted

Varimax Rotation of the Principal Components of the Communication Channel

Semantic Differential Scale Items of the Stage II Ss

	Factors				
	I	II	III	IV	V
Factor I					
1. pleasant--unpleasant	87	-13	12	17	10
2. satisfies me--does not satisfy me	83	-13	-09	31	09
3. enjoyable--not enjoyable	75	04	-33	38	05
4. clear--not clear	68	31	07	21	28
5. important--unimportant	67	-11	-43	07	08
6. credible--unbelievable	65	18	-06	24	35
Factor II					
1. makes me feel other people are constantly aware of what I am doing--makes me feel like I am in private	-04	-87	04	01	-04
Factor III					
1. private--public	09	-03	79	-20	31
Factor IV					
1. makes me tired--does not tire me	-18	-05	23	-81	-06
2. active--passive	24	-27	-11	79	22
3. aimless--directed	-29	-45	-17	-67	-01
Factor V					
1. safe--dangerous	22	-01	21	-01	71
Mixed					
1. useful--useless	52	-19	04	54	-35
2. direct--indirect	48	13	-30	51	09
3. good--bad	58	-30	-04	58	09
4. beautiful--ugly	49	-60	-11	21	28
5. colourful--colourless	46	-08	-66	04	24
6. secure--insecure	11	-11	-24	48	65

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted

TABLE 20

Speaker Semantic Differential Rotated Factor Matrix Stage II

Differential Scale Items of the Stage II Ss (n=80)

	Factors							
	I	II	III	IV	V	VI	VII	VIII
Factor I								
1. weak--strong	78	-26	-18	05	16	-17	-10	-22
2. indifferent--concerned	77	10	-12	-13	03	-12	21	-11
3. active--passive	-74	31	29	-18	-10	05	-16	22
4. unemotional--emotional	71	-26	-06	-11	-08	14	-16	17
5. objective--biased	68	32	01	-26	-06	08	21	06
Factor II								
1. friendly--unfriendly	-23	80	09	10	-18	03	04	09
2. liked--disliked	-10	79	33	-03	05	14	-14	09
3. warm--cold	01	74	-01	-02	-11	32	17	-02
Factor III								
1. can identify with him--cannot identify with him	-13	24	84	08	-18	-01	-01	-18
2. credible--unbelieveable	-26	05	74	22	-02	11	01	36
3. good--bad	-45	17	69	-11	-23	09	-00	22
Factor IV								
1. he sensed how I was reacting--he did not sense how I was reacting	16	-07	-18	-89	-00	-01	-13	-14
Factor V								
1. pleasant--unpleasant	12	41	10	-04	-73	26	-09	11
Factor VI								
1. he talked past me--he never talked past me	-01	-16	10	-09	09	-81	-03	07
2. I clearly understood his position--I never understood his position	-33	19	19	-09	-08	77	-12	07
Factor VII								
1. I had the feeling he was never talking directly to me--I felt he was speaking directly to me	12	02	-01	42	01	-02	94	-01
Factor VIII								
1. knowledgeable--ignorant	-11	12	15	17	-16	-03	-01	83
Mixed								

4. unemotional--emotional	71	-26	-06	-11	-08	14	-16	17
5. objective--biased	68	32	01	-26	-06	08	21	06
Factor II								
1. friendly--unfriendly	-23	80	09	10	-18	03	04	09
2. liked--disliked	-10	79	33	-03	05	14	-14	09
3. warm--cold	01	74	-01	-02	-11	32	17	-02
Factor III								
1. can identify with him--cannot identify with him	-13	24	84	08	-18	-01	-01	-18
2. credible--unbelieveable	-26	05	74	22	-02	11	01	36
3. good--bad	-45	17	69	-11	-23	09	-00	22
Factor IV								
1. he sensed how I was reacting--he did not sense how I was reacting	16	-07	-18	-89	-00	-01	-13	-14
Factor V								
1. pleasant--unpleasant	12	41	10	-04	-73	26	-09	11
Factor VI								
1. he talked past me--he never talked past me	-01	-16	10	-09	09	-81	-03	07
2. I clearly understood his position--I never understood his position	-33	19	19	-09	-08	77	-12	07
Factor VII								
1. I had the feeling he was never talking directly to me--I felt he was speaking directly to me	12	02	-01	42	01	-02	94	-01
Factor VIII								
1. knowledgeable--ignorant	-11	12	15	17	-16	-03	-01	83
Mixed								
1. boring--interesting	58	-38	-51	-02	04	-06	-02	-05
2. self-assured--unsure of self	-51	46	34	13	14	-08	-07	34
3. dull--stimulating	66	-46	-36	04	18	-20	-01	-18
4. persuasive--unpersuasive	-57	-21	43	21	-19	-10	-24	-14
5. inexperienced--experienced	40	12	-54	-12	-08	02	11	-35
6. colourless--colourful	47	-14	-17	33	64	-08	-09	-30
7. beautiful--ugly	-04	58	01	-22	-09	26	-02	50
8. complex--simple	-18	-16	25	29	-55	-41	10	05
9. understandable--not understandable	20	26	47	-01	10	62	04	22
10. is sensitive to other's feelings--is not sensitive to others	-02	54	-13	32	-41	38	-10	-28
11. his intention was confused--his intention was clear	28	-49	-25	-38	-12	-27	43	-16

*Some items have been reflected so they show primary loading on the first word on each bipolar scale; the decimal point has been omitted.

TABLE 21

Analysis of Variance of Attitude Scale Factor Scores Administered pre and post Stimulus Presentation on Stage II Subjects

Source	df	I	II	III	IV
Stimulus Channel (sc)	1		1.493		
order	1		1.073		1.001
User Channel (uc)	1				
pre-post (pp)	1	1.723	1.735		2.367
sc x o	1		1.177		
sc x uc	1	1.186			1.554
o x uc	1				1.559
sc x pp	1				1.138
o x pp	1		1.004		
uc x pp	1	1.703		1.953	1.973
sc x o x uc	1	1.482			
sc x o x pp	1				1.072
sc x uc x pp	1	1.562		1.098	
o x uc x pp	1	1.309	1.051		1.120
sc x o x uc x pp	1		1.254		

TABLE 22

Overall Multivariate and Univariate Analysis of Variance of Message, Channel and Speaker Semantic Differential Factor Scores of Stage II Subjects

		Univariate Fs						
		Message Factor Scores						
Source	df	I	II	III	IV	V	VI	VII
Stimulus Channel (sc)	1				1.084	1.542		1.515
Order (o)	1	1.516		1.502	2.003		1.345	
User Channel (uc)	1				1,487			
sc x o	1						1.603	
sc x uc	1		1.953		1.560	1.579	1.147	
o x uc	1	2.160			1.269	1.004	1.563	
sc x o x uc	1		1.875				1.423	

TABLE 22--Continued

Overall Multivariate and Univariate Analysis of Variance of Message, Channel and Speaker Semantic Differential Factor Scores of Stage II Subjects

Univariate Fs

Channel Factor Scores					Speaker Factor Scores							
I	II	III	IV	V	I	II	III	VI	V	VI	VII	VIII
			1.800						1.387		1.061	
1.474		1.259						1.067			1.660	
				1.230		1.814	1.378					1.491
	1.296	1.362			1.422	1.381					1.398	1.547
								1.061			1.269	
1.031				1.737		1.022			1.128			
	1.111					1.310	1.439			1.016	1.325	1.203

significance. In light of this lack of significance, no attempt was made to interpret the extracted factors. As with the one-way message analysed earlier, it appears that channel differences are not important in the one-way reception of a communication.

DISCUSSION

All of the predictions made concerning the effects of a one-way stimulus presentation via an A or AV channel were not borne out by the data, despite the highly intensive and extensive analysis performed. The one conclusion that can be drawn is that, when communication is one-way, differences between the A and AV channels are either non-existent or negligible with this type of stimulus, a finding that is largely in agreement with the literature in this area (Jones 1971, Wall & Boyde 1971, Mielke 1971, Boyde & Perry 1972). The information processing channel differences predicted by Hsia (1968a, 1968b, 1971) were also found to not even approach significance, although differences in recall and equivocation were in the direction predicted. This would indicate either that the measurements used in the present study were either too imprecise to measure the subtle differences between the channels or that such an information processing model is largely inapplicable to the complex persuasive communications as were used in the present experiment involving affective appeals and rehtoric. In view of the very slight differences obtained, the latter case seems a more appropriate conclusion.

The differences between the same A and AV channels used for <u>two-way communication</u>, however, were strikingly significant in the predicted direction. The AV channel was rated as being more pleasant, enjoyable, important, satisfying, colourful, beautiful and better in terms of a general Evaluative dimension than the A only channel. These results were also obtained by Christie (1973) in his analysis of four different modes of teleconferencing systems. The A channel, on the other hand, was rated as being much more private than the AV channel in both studies, whereas a Credibility component common to both studies was found to be not significant in either study. The above would thus indicate that the underlying channel differences are both strong, pervasive and applicable

to both interpersonal and intergroup communications.

The unique ICP paradigm used in the present study also showed a number of interesting interactions between the channel of stimulus presentation and the user channels of communication on a number of items relating to the Privacy factor. It would appear that prior exposure to a stimulus channel tends to influence the differential ratings of the two channels of user communication afterwards. This interaction could be explained by some form of familiarity/novelty effect but there is not enough information at present to make such a detailed explanation. Perhaps further studies using Ss with prior experience of both A and AV channels of two-way communication would be able to determine whether this effect is intrinsic to the channels of communication and the sequence they are experienced in, or whether they are purely due to the prior experience of the S in using such channels.

The content analysis of the stage I Ss verbal responses also yielded some very interesting results. Contrary to expectation, the amount of information transmitted was largely dependent on the channel of communication used, rather than the original channel of stimulus presentation. This finding is in contradiction to the results of Perry & Boyde (1972). The end result of the decoding group, however, agrees with the Boyde & Perry's (1972) findings showing no differences between channels of presentation, but the more detailed content analysis of the interaction process of the present experiment showed results which would not have appeared using the above authors' experimental procedure. Whether the feedback inherent in the two-way design of

the present experiment was instrumental in determing the significant differences found cannot be answered with the available information. Such an explanation, however, appears feasible in light of the findings by Chapanis et al (1972) indicating greater efficiency and accuracy under communication rich conditions offering optimal interactive feedback. The question of the different content of the stimuli used in the two experiments must also be considered as a possible explanation.

The results shown by the verbal immediacy measures were also quite different from the expected. Contrary to the theorizing of Mehrabian (1972, pp. 31-54), the Ss in the AV user group were found to show a greater degree of verbal non-immediacy than the A user group, a result that would indicate that the more immediate a channel of communication between two strangers, the less immediate the verbalizations. The lack of significant findings of the stage II Ss judging of the above significant immediacy differences would tend to indicate that other factors must have been influencing the results. These results must therefore be considered in light of certain peculiarities of the present experiment. A survey of the present data indicated that the majority of the variance in the immediacy measures were largely due to spatio-temporal differences, primarily expressed as very tenses. In other words, the immediacy expressed appeared to relate to real temporal distance from the topic rather than an applied psychological distance. Thus, an accurate objective account of the preceding stimulus would necessarily involve the continued use of the past tense, thus increasing the Ss's immediacy score. All Ss tended to lapse into the present

tense from time to time but did so significantly less under the AV channel of communication use. This relationship between accurate objective reporting of the original stimulus and verbal immediacy is shown by the relatively high correlation between the mean correct recall and verbal immediacy expressed in the Ss's first communication ($r = 0.397$). In the present experiment, the degree of immediacy thus appears to be more a function of accurate objective recall rather than a measurement of any type of affect. When interpreted, the immediacy data agrees very much with the interpretations given above regarding the user channel of communication effects on recall.

The considerable differences noted between the effects of a one-way, as opposed to a two-way channel are somewhat difficult to explain clearly. The essential information carrying capacity of the two channels must be assumed to be an intrinsic quality of the channel used and therefore identical in both cases, such that the differences found must be attributable to the operation of some alternative factor. The primary difference between the one-way and two-way channels therefore must be related to the interaction process inherent in the two-way design, and in particular to the differential feedback of the A and AV channels. In the present experiment, the A channel feedback was extremely limited to uh-huhs to convey understanding, and even these were rather infrequent. The visual non-verbal feedback was also controlled to an extent, but it was necessarily present and ongoing during the whole communication process. It is highly likely that this is the main factor responsible for the different information recall differences of the Ss. The fact that the AV channel was also rated as more pleasureable would tend to indicate

that this feedback was not stressful in nature and that the probe question "can you remember anything else?" was not perceived as a stress type interview to elicit greater recall, at least under the AV channel situation. (The possibility that this was more stressful under the A channel conditions cannot be discounted, but there is no evidence that would indicate this). Thus it would be plausible to assume that the implicit nonverbal communications of the confederate thus facilitated the Ss recall of the stimulus and was positive in nature. Further research, however, must be done before the above can be stated in direct as opposed to hypothetical terms.

APPENDIX A

ATTITUDE SCALE

The purpose of this rating scale is to determine how you feel or what you think about the subject of the movies. Please read through the following ten statements and indicate to what extent you agree or disagree with them by encirclin the appropriate number. For example, if you agree highly with the first statement you would circle 1. If you disagreed, but not extremely, you would circle the 4 etc. Please answer the questions quickly and directly, as it is your immediate impressions that we want. On the other hand, do not be careless because we want your frank and true impressions. Thank you for your kind cooperation.

1. I am tired of the movies, I have seen too many poor ones.

Highly agree	Agree	Doubtful	Disagree	Absolutely Disagree
1	2	3	4	5

2. Movies are all right, but a few of them give the rest a bad name.

1	2	3	4	5

3. Movies are just a harmless pastime.

1	2	3	4	5

4. The movies are good clean entertainment.

1	2	3	4	5

5. I'd never miss the movies if we didn't have them.

1	2	3	4	5

6. Sometimes I feel that the movies are desireable and sometimes I doubt it.

1	2	3	4	5

7. A good movie is the best entertainment that can be obtained cheaply.

1	2	3	4	5

8. A movie once in a while is a good thing for everybody.

1	2	3	4	5

9. I like the movies as they are because I go to be entertained, not educated.

1	2	3	4	5

10. I like to see other people enjoy movies whether I enjoy them or not.

1	2	3	4	5

APPENDIX B

Communication Message Rating Scale

The purpose of this rating scale is to determine how you feel or what you think about the message you just heard. You are to judge which of the two words or phrases listed below most applies to the message you just heard, as you see it.

The message is to be rated on each of the two words or phrases by circling one of the numbers between each pair of words which are opposite or nearly opposite in meaning in the following manner.

3 means that the closest word applies extremely
2 means that the closest word applies definitely
1 means that the closest word applies somewhat
0 means neutral or that neither word applies

For example, note that the first two words are boring on the left and exciting on the right. If you felt that the message was extremely boring, you would circle the 3 on the left nearest the word "boring". If you felt the message was extremely exciting you would circle the 3 on the right closest to the word "exciting". If you felt the message was definitely but not extremely exciting you would circle the 2 closest to "exciting", etc.

Please answer all the scales. Do not leave any blank. Make each item a separate judgement and do not look back and forth through the items. Obviously there are no right and wrong answers. Since it is only your immediate impressions that we want, please go as quickly as you can. On the other hand, do not be careless because we want your frank and true impressions.

boring	3	2	1	0	1	2	3	exciting
dull	3	2	1	0	1	2	3	stimulating
clear	3	2	1	0	1	2	3	unclear
objective	3	2	1	0	1	2	3	biased
active	3	2	1	0	1	2	3	passive
weak	3	2	1	0	1	2	3	strong
persuasive	3	2	1	0	1	2	3	unpersuasive
good	3	2	1	0	1	2	3	bad
pleasant	3	2	1	0	1	2	3	unpleasant
exaggerated	3	2	1	0	1	2	3	unexaggerated
credible	3	2	1	0	1	2	3	unbelievable
long	3	2	1	0	1	2	3	short
definite	3	2	1	0	1	2	3	vague

complex	3	2	1	0	1	2	3	simple
leaves me uncertain of what to think and do	3	2	1	0	1	2	3	makes it clear as to what to think and do
leaves me anxious	3	2	1	0	1	2	3	leaves me at ease
frustrates me	3	2	1	0	1	2	3	is not frustrating
agree	3	2	1	0	1	2	3	disagree
aimless	3	2	1	0	1	2	3	directed
certain as to how I was supposed to respond to message	3	2	1	0	1	2	3	not sure as to how I was to respond
hard to interpret what was meant	3	2	1	0	1	2	3	easy to interpret what was meant
had trouble concentrating on the message	3	2	1	0	1	2	3	had no trouble concentratin on the message

APPENDIX C

Communication Channel Rating Scale

The purpose of this rating scale is to determine how you feel or think about the communication channel you just used, as compared to other available channels. You are to judge which of the two words or phrases listed below most applies to the communication channel you used as you view it in comparison with other alternative channels such as a face to face lecture, etc.

The communication channels to be rated on each of the two words or phrases b circling one of the numbers between each pair of words which are opposite or nearly opposite in meaning, as you did on the previous scale. Please answer all the scales and do not leave any blank.

useful	3	2	1	0	1	2	3	useless
direct	3	2	1	0	1	2	3	indirect
clear	3	2	1	0	1	2	3	not clear
active	3	2	1	0	1	2	3	passive
good	3	2	1	0	1	2	3	bad
pleasant	3	2	1	0	1	2	3	unpleasant
aimless	3	2	1	0	1	2	3	directed
satisfies me	3	2	1	0	1	2	3	does not satisfy me
enjoyable	3	2	1	0	1	2	3	not enjoyable
credible	3	2	1	0	1	2	3	unbelievable
beautiful	3	2	1	0	1	2	3	ugly
private	3	2	1	0	1	2	3	public
colourful	3	2	1	0	1	2	3	colourless
makes me tired	3	2	1	0	1	2	3	does not make me tired
secure	3	2	1	0	1	2	3	insecure
important	3	2	1	0	1	2	3	unimportant
safe	3	2	1	0	1	2	3	dangerous
makes me feel other people are constantly aware of what I am doing	3	2	1	0	1	2	3	makes me feel I am in private

APPENDIX D

SPEAKER RATING SCALE

The purpose of this rating scale is to determine how you think or feel about the speaker you just heard. You are to judge which of the two words or phrases listed below most applies to the speaker as you view him.

The speaker is to be rated on each of the two words or phrases by circling one of the numbers between each pair of words with opposite or nearly opposite meaning, as you did on the earlier scales. Again, please answer all the scales and do not leave any blank.

boring	3	2	1	0	1	2	3	interesting
friendly	3	2	1	0	1	2	3	unfriendly
self-assured	3	2	1	0	1	2	3	unsure of self
liked	3	2	1	0	1	2	3	disliked
dull	3	2	1	0	1	2	3	stimulating
indifferent	3	2	1	0	1	2	3	concerned
knowledgeable	3	2	1	0	1	2	3	ignorant
objective	3	2	1	0	1	2	3	biased
active	3	2	1	0	1	2	3	passive
weak	3	2	1	0	1	2	3	strong
warm	3	2	1	0	1	2	3	cold
persuasive	3	2	1	0	1	2	3	unpersuasive
good	3	2	1	0	1	2	3	bad
pleasant	3	2	1	0	1	2	3	unpleasant
inexperienced	3	2	1	0	1	2	3	experienced
credible	3	2	1	0	1	2	3	unbelievable
unemotional	3	2	1	0	1	2	3	emotional
colourless	3	2	1	0	1	2	3	colourful
beautiful	3	2	1	0	1	2	3	ugly
complex	3	2	1	0	1	2	3	simple
understandable	3	2	1	0	1	2	3	not understandable
is sensitive to others feeling	3	2	1	0	1	2	3	is not sensitive to others feelings

LEAF 67 OMITTED IN PAGE NUMBERING.

can identify with him	3	2	1	0	1	2	3	cannot identify with him
his intention was confused	3	2	1	0	1	2	3	his intention was clear
he sensed how I was reacting	3	2	1	0	1	2	3	he did not sense how I was reacting
he talked past me	3	2	1	0	1	2	3	he never talked past me
I had the feeling he was never talking directly to me	3	2	1	0	1	2	3	I felt he was speaking directly to me
I clearly understood his position	3	2	1	0	1	2	3	I never understood his position

APPENDIX E

User Communication Channel Rating Scale

The purpose of this scale is to determine how you feel or what you think about the different channels of communication you have just used, but this time from the point of view of an information sender. You are to judge which of the following words or phrases listed below most applies to the concept of a) a video-phone channel and b) a telephone channel. Both concepts are to be rated by circling the appropriate number, as you did on the previous scales, but this time you will have to fill out two scales, one for the video-phone channel and one for the telephone channel. Please answer all the scales and do not leave any blank.

Video-phone Channel

useful	3	2	1	0	1	2	3	useless
direct	3	2	1	0	1	2	3	indirect
active	3	2	1	0	1	2	3	passive
weak	3	2	1	0	1	2	3	strong
good	3	2	1	0	1	2	3	bad
pleasant	3	2	1	0	1	2	3	unpleasant
colourful	3	2	1	0	1	2	3	colourless
makes me tired	3	2	1	0	1	2	3	does not tire me
private	3	2	1	0	1	2	3	public
suitable for discussions with close, intimate friends	3	2	1	0	1	2	3	suitable only for common gossip
secure	3	2	1	0	1	2	3	insecure
enjoyable	3	2	1	0	1	2	3	not enjoyable
credible	3	2	1	0	1	2	3	unbelievable
beautiful	3	2	1	0	1	2	3	ugly
important	3	2	1	0	1	2	3	unimportant
safe	3	2	1	0	1	2	3	dangerous
satisfies me	3	2	1	0	1	2	3	does not satisfy me

I felt the other person was uncertain whether I was listening or not	3	2	1	0	1	2	3	I felt the other person was certain that I was listening
makes me feel other people are constantly aware of what I am doing	3	2	1	0	1	2	3	makes me feel like I am in private

Telephone Channel

useful	3	2	1	0	1	2	3	useless
direct	3	2	1	0	1	2	3	indirect
active	3	2	1	0	1	2	3	passive
weak	3	2	1	0	1	2	3	strong
good	3	2	1	0	1	2	3	bad
pleasant	3	2	1	0	1	2	3	unpleasant
colourful	3	2	1	0	1	2	3	colourless
makes me tired	3	2	1	0	1	2	3	does not tire me
private	3	2	1	0	1	2	3	public
suitable for discussions with close, intimate friends	3	2	1	0	1	2	3	suitable only for common gossip
secure	3	2	1	0	1	2	3	insecure
enjoyable	3	2	1	0	1	2	3	not enjoyable
credible	3	2	1	0	1	2	3	unbelievable
beautiful	3	2	1	0	1	2	3	ugly
important	3	2	1	0	1	2	3	unimportant
safe	3	2	1	0	1	2	3	dangerous
satisfies me	3	2	1	0	1	2	3	does not satisfy me
I felt the other person was uncertain whether I was listening or not	3	2	1	0	1	2	3	I felt the other person was certain that I was listening

makes me feel other people are constantly aware of what I am doing	3	2	1	0	1	2	3	makes me feel like I am in private

APPENDIX F

Persuasive Argument

Of all the forms of mass entertainment, movies have been the subject of the most extravagant claims. It is my intent here to examine some of these claims.

Some movie makers have gone on record as saying that too much intellect or profundity in films subtracts from their entertainment function. This claim is fallacious. What the majority of American film-makers have done is to take the world's most powerful instrument of communication and play over and over, time and time again the same tune--chopsticks.

Another claim made in the defense of today's movies is that they present life largely as the audience prefers. Real people and real problems on the screen are not entertaining, and so a superficial picture of reality is the norm. It seems that movies, for the most part are shallow, false and cliche cluttered; inspired by the same idiot muse that enables countless TV viewers to submit uncomplainingly to the banalities of the soap opera and routine terror of the adult detective story.

Many people have justified the use of stereotypes in films. As film is mass entertainment, there must be some common denominator. These same people give you the cycle. Somebody makes a moneymaking western and two months later that's all you can see at the theatre--offshots. We are treated to outlaw cycles, romance cycles, gangster cycles, nostalgia cycles and most recently, the disaster cycle.

The effects of all this grusome behaviour on people's minds may never be accurately assessed, but directors and producers justify immoral and ultra-violet films as artistic expression. But in many films of this type, a truer description of the content would be sensationalism for box office attraction. Research has shown that a particularly powerful presentation can do much to undermine what parents and other responsible agents of our society have taught. There are cases on record to show that children and adults have committed anti-social acts after seeing a movie in which these were carefully outlined. It is certain that a great deal of the brutality presented to children is outside of their normal experience, and vivid presentations must have some effect. It is estimated that a child of twelve has already seen over two thousand homicides on film and television. Is this good entertainment?

Some moviemakers complain of the difficulty in making educational films. In a pluralistic society there is too much disagreement over the nature of truth they say. But to assert that truth is so varied that its communication is impossible in movies to display an extreme lack of comprehension of the nature of truth. A pluralistic democracy derives its dynamism from the friction of ideas.

Filmmakers are in an industry, and as such, the biggest factor in the making of pictures is its saleability--not its artistic content. Combined with outrageous prices for two hours in a theatre, this concentration on money is an insult to the public.

As entertainment, the great majority of films are falling so short that box office receipts are down once again. To blame this on television is an inadequate answer. Going to the movies is a risk of both time and money. Perhaps it is best to stay at home and read a good book.

APPENDIX G

Scoring Criterion	Score
1) Movies have been subject to the most extravagant claims as compared to all other forms of mass communication.	1
2) Too much intellect or profundity detracts from entertainement - false.	2
3) most movies are repititious and shallow	1
4) claim; movies are tailored to the audience's preferrence.	1
5) reality is not entertaining therefore movies present superficiality	2
6) Movies are shallow false and cliche cluttered.	1
7) The same factors that enable TV viewers to watch TV soap operas and routine TV detective stories influence movie producers today.	1
8) Steoreotyping is used as a common denominator for mass entertainment.	1
9) The same thinking (persons) produces cycles - similar offshoots of succesful films.	1
10) Outlaw, romance gangster nostalgia and disaster cycles have been produced.	1
11) Disaster cycles have been the most recent.	1
12) It is difficult, if not impossible to ascertain the effect of movies on society.	1
13) Directors and producers justify sex and violence as artistic expression.	1
14) This is mostly sensationalism for profit.	1
15) Studies have shown such films corrupt people (go against the teachings of parents and responsible citizens).	1
16) There are recorded cases of children carrying out anti-social acts after viewing them on the screen.	1
17) Children don't see this violence normally therefore there must be some effect on the children.	2
18) A 12 yr. old child has seen over 2 thousand homocides.	1
19) Querry: is this good entertainment?	1
20) It is difficult to make educational movies because there is too much disagreement over the nature of truth.	2

Scoring Items (2)

21) To say that truth is so varied its communication is impossible shows a lack of understanding of the nature of truth.

22) Democracy gets its dynamism from the friction of ideas.

23) Films are an industy.

24) Therefore saleability is of more importance than artistic value.

25) The high price of viewing a film and this concentration on money is an insult to the public.

26) Movies today are such bad entertainment that box office receipts are down. 2

27) Blaming this on TV is inadequate. 1

28) Going to the movies is a risk of wasting your time and money. 2

29) Perhaps it is better to stay home and read a book. 2

Total 38

APPENDIX H

INSTRUCTIONS TO THE SUBJECTS

Stage I Subjects

Upon reporting for the experiment, the stage I Subjects were given the following instructions:

> "We are interested in finding out how people in general perceive media presentations. We have, therefore, prepared a message on the movies which we will broadcast over the TV (substitute speakerphone for A only group) you see in front of you. The message itself is a short talk made by a visiting professor of communication arts on the topic of the current status of the movie industry today. We would like you to listen carefully to it as you will be asked some questions on it later. After it is over, we would like you to fill out some questionnaires and briefly give an accurate as possible account of what you have just seen (or heard) to someone who did not have the opportunity of seeing (hearing) the original presentation. Thank you very much for your cooperation."

After the Ss have received the stimulus presentation, and filled in the semantic differential scales, they were given the following instructions:

> "We would like you to prepare some kind of summary of what you just saw (heard), in order to tell someone who did not have the opportunity of seeing (hearing) it herself. You will, however, only be able to communicate via the video-phone (speakerphone system) you see in front of you, so please keep this in mind when you are preparing what to say. Please do not write anything down though. The person you will be communicating with has been asked to say as little as possible to give you more time to tell her the essentuals of the media presentation you just saw (heard). The equipment works by voice alone, so all you have to do is talk naturally and the other person will be able to hear you. Are there any questions? Good. You now have 3 minutes to prepare and think about what you will. After this time, someone will contact you via the videophone (speakerphone) in front of you. Please try and give her an as accurate an impression of the presentation as is possible via a videophone (or speakerphone).

The confederate will then contact the S and initiate the session by the words:

> "I understand that you have just seen (heard) a broadcast about the movies. I did not see (hear) it and I was wondering if you could please tell me something about it?"

The instructions to the S for the second and final communication by the Subjects was:

> "That was very good. Now I would like you to again prepare some kind of a summary to tell someone, only this time you will only be able to communicate via speakerphone (videophone), so please keep this in mind when you are preparing what to say. The person you will be communicating with has been asked to say as little as possible to give you more time to tell her all the essentuals. The equipment works the same as before. Are there any questions? Good. You now have 3 minutes to prepare and think about what you will say. After this time, someone will contact you via the speakerphone (videophone) in front of you. Please try and give an as accurate an impression of the presentation as is possible over a speakerphone (or videophone).

Stage II Subjects

The final stage II Subjects were given the following instructions:

> "We are interested in finding out how people in general perceive different media presentations. We are going to show you a videotape (audiotape) of an interaction between two people, one of whom is trying to tell the other about a broadcast she just saw (heard). We would like you to watch (listen) carefully to it as you will be asked some questions on it later. After it is over, we would like you to fill out a questionnaire on your feelings towards it. Thank you very much for your cooperation."

REFERENCES

Allen, W. H. Instructional media research past, present and future. Audio Visual Communications Review, 1971, 19, 5-18.

Aronson, E., and Golden, B. The effect of relevant and irrelevant aspects of communicator credibility on opinion change, Journal of Personality, 30, 135-146.

Boyde, J. E. and Perry, R. P. Impression formation as an interpersonal communication phenomena. Canadian Journal of Psychology, 1972, 13, 207-216.

Chapanis, A., Ochsman, R. B., Parrish, R. N. and Weeks, G. D. Studies in interactive communications the effects of four communication modes on the behaviour of teams during cooperative problem solving. Human Factors, 1972, 14, 487-509.

Cherry, C. On Human Communications. Cambridge: MIT Technology Press, 1957.

Christie, B. Communications in the New Rural Society. Paper delivered at the Annual Conference of the American Psychological Association, Montreal, Canada, 1973.

Davitz, J. R. The Communication of Emotional Meaning, New York: McGraw-Hill, 1964.

Day, W. F. and Beach, B. R. A survey of the research literature comparing the visual and auditory presentation of information (Tech. Re. 5921). USAF: Air Material Command. Wright-Patterson AFB, Dayton, Ohio, 1950.

Freel, P. The effect of one-sided and two-sided arguments on change of opinion. Unpublished master's thesis, University of Windsor, 1962.

Garner, W. R. Uncertainty and Structure as Psychological Concepts. New York: Wiley, 1962.

Gollick, J., Wiener, M., and Mehrabian, A. Immediacy, discomfort-relief quotient and content in verbalizations about positive and negative experiences. Journal of Personality and Social Psychology, 1967, 7, 266-274.

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

Hovland, C. I., and Weiss, W. The influence of source credibility on communication effectiveness. Public Opinion Quarterly, 1951, 15, 635-650.

Hsia, H. J. On channel effectiveness. Audio Visual Communications Review, 1968a, 16, 245-267.

Hsia, H. Output, error, equivocation and recalled information in audio, visual and audio-visual processing with constraint and noise. Journal of Communications, 1968b, 18, 325-353.

Hsia, H. J. The information processing capacity of modality and channel performance. Audio Visual Communications Review, 1971, 19, 51-75.

Jones, S. G. Attitude change across different media as related to internal/external control. Unpublished Master's thesis, University of Windsor, 1971.

Leavitt, H. J., and Mueller, R. A., Some effects of feedback on communication. Human Relations, 1951, 4, 401-410.

Lumsdaine, A. A. Instruments and media of instruction. In N. L. Gage (Ed.), Handbook of research on Teaching. Chicago: Rand-McNally, 1963. pp. 596-600.

Mehrabian, A. Differences in the forms of verbal communication as a function of positive and negative affective experience. Unpublished doctoral dissertation, Clark University, 1964.

Mehrabian, A. Communication length as an index of communicator attitude. Psychological Reports, 1965, 17, 519-522.

Mehrabian, A. Attitudes in relation to the forms of communicator-object relationship in spoken communication. Journal of Personality, 1966, 34, 80-93.

Mehrabian, A. Attitudes inferred from non-immediacy of verbal communication. Journal of Verbal Learning and Verbal Behaviour, 1967, 6, 294-345.

Mehrabian, A. Nonverbal communication. Chicago: Aldine Atherton, 1972.

Mehrabian, A. & Wiener, M. Non-immediacy between communicator and the object of communication in a verbal message: application of the inference of attitude. Journal of Consulting Psychology, 1966, 30, 420-425.

Mehrabian, A. and Williams, M. Nonverbal concomitants of perceived and intended persuasiveness, Journal of Personality and Social Psychology, 1969, 13, 37-58.

Mielke, K. W., Renewing the link between communications and educational technology, AV communications Review, 1972, 20, (4), 357-399.

Pease, K. Attitudes in linguistic communication; a further study in immediacy. Journal of Personality, 1972, 40, 298-307.

Perry, R. P. and Boyde, J. E., Communicating impressions of people: a methodological study of person perception, The Journal of Social Psychology, 1972, 86, 95-103.

Pierce, J. R. Communication. Scientific American, 1972, Sept., 3-17.

Rosenow, R. L. & Robinson, E. J. Experiments in Persuasion. New York: Academic Press, 1967.

Shannon, C. E. & Weaver, W. The Mathematical Theory of Communication. Urbana III.: University of Illinois Press, 1949.

Thurstone, L. L. The Measurement of Values. Chicago: University of Chicago Press, 1959.

Verplanck, W. S. The control of the content of conversation: reinforcement of statements of opinion, Journal of Abnormal and Social Psychology, 1955, 51, 668-676.

Wall, V. D. & Boyde, J. A. Channel variation and attitude change. Journal of Communication, 1971, 21, 363-367.

Wiener, M. and Mehrabian, A., Language within Language: Immediacy, a channel in verbal communication. New York: Appleton-Century-Crofts, 1968.

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