A RECONCEPTUALIZED MODEL OF MESSAGE - ATTITUDE - BEHAVIOR RELATIONSHIPS

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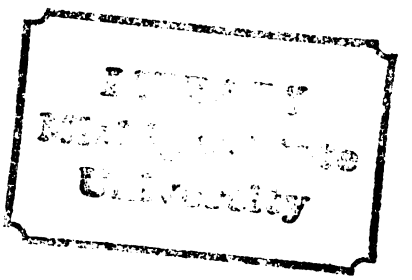

ABSTRACT

A RECONCEPTUALIZED MODEL OF MESSAGE-ATTITUDE-BEHAVIOR RELATIONSHIPS

By

Robert D. McPhee

This thesis is directed to the development and test of a reconceptualized model of message-attitude-behavior relationships. The model is a transformed version of one used by Don Dulany to explain verbal conditioning effects. It posits four kinds of beliefs which subjects might hold, as predictors of their intentions to behave. The model also suggests certain communication variables.

The power of the model was tested in a pretest post-test study using subjects from five introductory communication classes. Three out of four specific components of the model are significant determinants of behavioral intention, and the model as a whole explains a highly significant amount of the variance in both pretest and posttest results. But the predictive equations using the model do not have the stability, power, or immediacy predicted by the model. Hypothesis involving communication variables received questionable support.

In the conclusion, implications are stated and suggestions are made for a more decisive test of the relationships posited by the model.

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A THESIS

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To my parents,

to all my teachers,

and to Dale.

ACKNOWLEDGMENTS

I owe much to too many people to mention here. In particular, I must thank Tom Florence, Norm Fontes, Ginny McDermott, Bob Craig, and Dave Seibold for various cooperation in conducting this research, and for various comments and advice about questionnaire construction, analysis, and the thesis itself. Scott Poole and the persons mentioned in the dedication gave me patient moral support through trying times. I am very grateful to Dr. C. David Ralph and Dr. Gordon Thomas for their assistance and patience. And above all, I am grateful to Dr. Donald P. Cushman for his long intellectual guidance (trying at times to both of us), of which this thesis is an imperfect and minor product.

CHAPTER I

INTRODUCTION AND THEORY

In a recent review of the literature, Seibold (1974) finds various and inconsistent effects of messages of attitudinal and behavioral variables. This lack of cumulative findings in the literature seems to indicate the need for a revised model of message-attitude-behavior relationships. One such model can be derived from the work of Dulany (1961, 1962, 1963, 1968) in verbal conditioning; it is the purpose of this thesis to present and report an experimental test of that model.

A model designed to account for attitude-behavior inconsistencies has previously been derived from Dulany's work by the social psychologist Martin Fishbein (1967)--indeed, his model gave impetus to the present derivation. Fishbein's model has been extensively tested and supported in the social psychological literature, and has received as well some attention in the communication literature (see Mortensen and Gereno, 1973, part I; Holdridge and Lashbrook, 1973; and Seibold, 1974, for reference in the communication literature). This derivation of a new model from Dulany's work was undertaken for two reasons. First, Fishbein

reinterprets Dulany's theory in terms derived from the traditional components of attitude--cognitive, conative, and affective. These are primarily psychological variables, representing 'states of mind' of subjects. However, Dulany's original variables were conceived in terms of information and propositional form (see below for clarification) and were thus very close to communication variables in their underlying logic. Second, Fishbein's model is relatively unsuggestive about (a) message variables, and (b) variables, which might ease or hinder the communication process. Dulany's original logic is much more suggestive in this regard, and its approach has been incorporated into the present research. Later in this chapter, the communication variables suggested by Dulany's approach will be described.

In this thesis I shall explain the model of message-attitude-behavior relationships which I have derived from Dulany's theory, and describe the results of an experiment which allows a test of the theory. The body of the thesis will be divided as follows. The rest of Chapter One will be devoted to a summary of Dulany's theory and derivation of a message-attitude-behavior model from it, and to the statement of hypotheses. Chapter Two will include a discussion of the design and operational procedures used in the study. Chapter Three will contain a description of the data analysis and a discussion of its results, and Chapter Four will draw conclusions about those results.

Summary of Dulany's Theory

Dulany's original theory was proposed as a result of work done in verbal conditioning. His theory is rather revolutionary for that domain--he believes that "conditioned" verbal responses are actually under the conscious control of subjects, and are made for reasons which subjects can voluntarily report. Dulany's theory, loosely stated, consists in two main assertions. The first assertion is simply that we can predict subjects' responses if we ask them how they intend to respond. The second assertion, more complex, goes back a step and deals with the prediction of subjects' intentions to respond. Here Dulany asserts that we can predict subjects' intentions by knowing how they interpret the reinforcement situation, what they understand to be going on when the experimenter reinforces one of their responses. In particular, to predict intention we must at least know:

a) whether the subject thinks a particular response will be reinforced;

b) whether the subject likes or values the reinforcement;

c) what the subject thinks the reinforcement means--for example, does the experimenter want him to do just those behaviors that are reinforced, or not? and

d) whether the subject cares what the experimenter wants.

According to Dulany, each of these factors is present in a subject's mind as a proposition of a certain form--for example,

a) might be represented as "If I do response X, I will be reinforced." By asking subjects whether they agree with that statement, and others, we can predict their intentions.

Experimental evidence adduced by Dulany (1961, 1962, 1968) indicates that he can successfully predict behavior from intention, and intention from the four factors mentioned above. (See Appendix I for a complete and formal examination of Dulany's theory.)

Derivation of an Alternative Model

If we want a model that predicts behavior in a natural context, rather than in a conditioning laboratory, some parts of Dulany's theory must be changed. First, we take a step similar to Dulany's: we presume that behavior is under intentional control, so that Behavioral Intention is a good predictor of behavior. (Ajzen and Fishbein (1973) argue for this presumption, given certain situational constraints--for example, the subject must have the ability to accomplish what he intends, he must not change his mind, etc.) The real problem becomes, then, the prediction and explanation of Behavioral Intention.

My model has been derived by drawing up, following Dulany, a list of factors which (a) might influence intentions, and (b) can be represented as propositions of a particular form. The model contains five kinds of factors.

1. First, a subject might decide to do something because the consequences of his act would be rewarding or

valuable. This factor I shall call a Belief about the Extrinsic Value of the act--BEV for short. This factor is represented by propositions of the form "Doing X would be rewarding (or punishing)." Thus, if we ask someone if he agrees with a statement of that form, we gain information useful in predicting Behavioral Intention to do X.

2. A subject might also decide to do something just because it would be fun or pleasant, rather than because of the later useful consequences of doing it. This factor is called a Belief about the Intrinsic Value of the act--BIV. It is represented by propositions like "Doing X would be pleasant (unpleasant)."

3. Further, a subject might decide to act because he thinks it his moral duty or personal obligation. This factor has been called by Fishbein a Personal Normative Belief--abbreviated NBP. It corresponds to propositions such as "I should do X" or "I have a moral duty to do X."

4. Finally, a subject might decide to act because <u>others</u> <u>expect</u> him to. This factor is called a Social Normative Belief, NBS. It corresponds to propositions of the form "(Some group of significant others--family, teachers, etc.) expect me to do X."

5. The fifth factor has a different status from the first four. It is the extent to which a subject feels compelled to comply with each of the above factors. This factor is called Motivation to Comply--MC. It is measured separately

for each of the above components. For example, if a subject thinks that his parents expect him to attend class, and if he wants very much to live up to their expectations, he is likely to attend class. On the other hand, if he doesn't care what his parents expect, their expectations are unlikely to have much weight in determining his behavior. Indeed, this factor, MC, functions as a weight applied to each other factor before the data are analyzed.

The presumption is that these factors are related to, and allow us to predict, Behavioral Intention. Dulany, and Fishbein after him, used a multiple regression form for data analysis because regression emphasizes the prediction of the dependent variable (here BI). But each of the first four factors is weighted, or multiplied, by MC, before it is entered into the regression equation. This weighting allows us to compensate for subjects who think one factor very important (or very unimportant).

The final model is, then, in the typical regression format,

$$BI = b_1(MC_1 x BEV) + b_2(MC_2 x BIV) + b_3(MC_3 x NBP) + b_4(\Sigma_i MC_{4i} x NBS_i)$$

Note that there may be more than one social normative belief term, if there are several groups of significant others relevant to a behavior.

If our theory is correct, several things should be true of this model. First, the independent variables--the five

factors--should account for a good deal of the variance in Behavioral Intention. Second, each factor in the model should be important under some conditions--otherwise, we could just drop it from the model. (Note that if the theory suggests that each factor should be important, and one isn't, that finding casts doubt on the validity of the theory.) Third, if the factors are really the immediate determinative causes of Behavioral Intention, no other variable should be able to change BI independently--if BI is changed, that change should reflect a change in one or more of the factors.

Relation of the Model to Communication

At this point a discussion of the implications of this model for communication is in order. The discussion is clearer if the implications of this model are contrasted with the corresponding implications of Fishbein's model.

In a study which used messages to alter the intentions of subjects, Ajzen (1971) used messages in two ways. First, he used messages (not explicitly recognized as such in his study) to establish the "motivational orientation" of the subjects--essentially by telling them either that their own self-interests or their mutual interests with others should control their behavior. These messages affected the relative causal importance (beta weights) of the different components of the model, though effects on MC are not reported. Second, Ajzen used messages to affect the specific attitudes and

beliefs held by subjects--that is, to alter the value, rather than the importance, of the causal components. In both cases, message variables were dichotomous--messages were written to stress one component or another, one behavior or another. In addition, these messages are provided as part of the instructions in playing a Prisoners' Dilemma Game--they provided the only information subjects had about how to play the game.

In contrast, the model provided here presents a rationale for generalizing beyond the special situation of Ajzen's study, and provides a more sophisticated message variable--amount of information.

In the model presented here, messages may similarly be designed to affect the value and importance of one or another component, but a more powerful and accurate message variable, suggested by Dulany's logic, is the amount of information in each message encoded in each relevant form mentioned in the model by subjects. Thus, a message aimed at affecting BEV may still have information which is encoded by the subject so as to affect NBP or NBS. This variable can be operationalized either objectively, according to the experimenter's view of the message, or subjectively, according to estimates by naive subjects.

In addition, it is completely consistent with the logic of this theory to expect the effect of information of a certain propositional form in the message to be inversely

dependent on the amount of that type of information already held by the subject. Thus,

> --if S already has information that others expect him to do X, telling him that others expect him to do X may have little impact on his intentions.
>
> --if S already has information that others don't expect him to do X, telling him that others expect him to do X may have reduced impact due to his opposed belief.

This confounding effect of outside information available to S has been conceptualized by Woelfel (1973) as the inertial mass of a concept. He reasons that the more information we have about a concept or relationship, the harder it is to change our minds about that concept or relationship. Thus, we will expect that the amount of change in a belief produced by a message will be (a) directly related to the amount of information in the message which has the same propositional form as the attitude and (b) inversely related to the amount of information the subject already has relative to that propositional form.

Operational Definitions

Eight variables, including terms in the model and communication variables, require explicit operationalization. These operational definitions will be stated in the next chapter, but two of them, because of their subtle connections to theory, require some consideration now.

In both Dulany's and Fishbein's work, the variable "motivation to comply" has been measured only for some of the

components in the model. This procedure has resulted in measurement problems (cf. Ajzen and Fishbein, 1969, p. 257; Schwartz and Tessler, 1973, p. 229), which might well be corrected if subjects could be indeed to give comparative ratings of the importance of all components. The operationalization was designed to do this, by asking, subjects first to rank the variables by importance, then to rate the importance of each variable on a semantic differential scale. In using a rank-order question first, it was hoped that the comparison among components would become salients to subjects when they answered the immediately following questions. This hope can be empirically checked by examining the variance in seven-point ratings and the correlation between ratings and rankings.

The most important communication variable to be used in this study is the amount of information in the message bearing on each propositional form in the model. To operationalize this variable, I simply asked an independent sample of subjects to rate the messages (one message per subject) as to the percentage of information in the message stating or supporting each propositional form. This procedure, to be completely valid, would require the assumption that subjects can objectively classify and measure amounts of information in a message. Such an assumption may be false-indeed, much research has shown that a subject's prepotent mental set is as important in determining a message's effect as the message

itself. I make the weaker assumption that (a) various "mental sets" are fairly normally distributed in my population and samples, so that (b) the means of various subjective estimates will be accurate in determining at least ordinally the amount of information in the message. The value of this operational definition can be checked by examining the covariation in semantic differential ratings and rank orders, of subject estimates.

Hypotheses

Hypotheses related to this model can be presented in two areas: relative to the model itself as a predictor of behavioral intention, and to the effects of messages on variables in the model.

As Schwartz and Tessler point out, if a model of the form proposed is to be accepted, it should contain all the significant immediate determinants of BI, and only such immediate determinants--i.e., there should be no irrelevant or ineffectual components. In particular, communicative influences should change behavioral intention only by changing some other variable(s) in the model.

These requirements are reflected in the following hypotheses:

H 1. The relationship between BIV and BI is necessary (for at least one treatment condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 2. The relationship between BEV and BI is necessary (in at least one condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 3. The relationship between NBP and BI is necessary (in at least one condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 4. The relationship between NBS and BI is necessary (for at least one condition, at least one group of significant others), contingent (on MC), irreversible, stochastic, and coextensive.

H 5. The relationship between a linear combination of the components MC x BEV, MC x BIV, MC x NBP, and MC x NBS, and BI is necessary, sufficient, deterministic, irreversible, and coextensive.

Hypotheses also can be advanced in the area of message variable influence. The theory does not demand any particular quantitative relationship between message information (hereafter termed, after Woelfel, message mass, or MM), information previously held (or previous mass PM), and components of the model. The simplest available relationship is Woelfel's prediction of a linear relationship between belief change and the ratio of new information to old, $\frac{MM}{PM}$.

H 6. The relationship between MM/PM for any component (including MC as a multiplier) and change in that component, is necessary, sufficient, deterministic, irreversible, and sequential.

Our last hypothesis is that, for a message to affect BI, its mass ratio, MM/PM, must affect the components of the model.

H 7. The relationship between message condition and change in BI is substitutable, contingent (on the effect of MM/PM upon the model's determining variables, including MC), stochastic, irreversible, and sequential.

Note that in each of these last two hypotheses we contend that MM/PM may affect MC, by bringing to the subject's attention the fact that a certain propositional form is relevant and that he should comply with it. A diagrammatic model of these hypotheses is as follows (Figure 1):

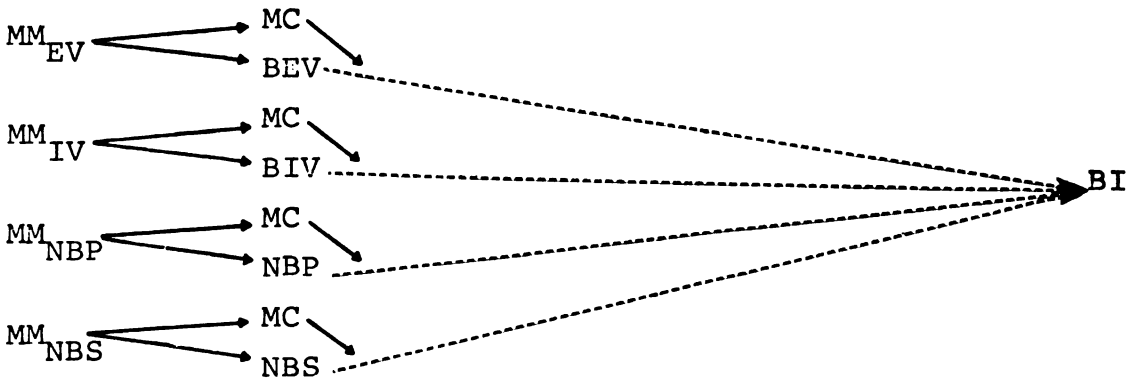

Figure 1.--Hypothesized relations among major variables in model.

In this diagram is a causal influence, is a contingent causal influence, and the solid arrow in is a contingency-producing influence: in each case, MC makes the relationship a contingent one.

CHAPTER II

DESIGN AND OPERATIONAL PROCEDURES

In this chapter I shall first briefly sketch the experimental design used in testing the model presented in the first chapter. Then the questionnaire used in the research will be described in depth. Finally, the method used to derive message variables will be reported.

Design

The study was constructed as a pretest-posttest control group design with three message treatment groups and a control group. Subjects were drawn from five undergraduate communication classes taught during Spring term, 1974.

Between April 29 and May 3, 1974, pretests were administered in the five classes. The pretest form included an announcement that a lecture on family communication would be given by Professor Donald Cushman on May 22 and 23; after this announcement subjects were asked to respond to a series of questions about this lecture and their thoughts about attending it. Two weeks later, between May 15 and 21, a second set of questionnaires, consisting of a message treatment and questions including those used in the pretest, was distributed in the five classes.

There were three message conditions besides the control condition (in which no message beyond the neutral announcement was used.) Messages were constructed with essentially the same informational content but designed to support three different reasons for attending the lecture. The messages argued either that (a) consequences of going to the lecture would be pleasant and rewarding, or (b) each student had a moral obligation to attend the lecture, or (c) each student's family would expect him to attend the lecture. Subjects were randomly assigned to treatment or control conditions by randomly distributed treatment-instrument packages.

The lectures were indeed held on May 22 and 23, and a record was kept of which students attended the lectures.

194 students completed the first questionnaire, and 178 completed the second; in all, 103 subjects usably responded to both the pretest and the posttest; these subjects were fairly evenly distributed among all four conditions. (Of these subjects, 16 actually attended the lecture.)

The Questionnaire

A cover sheet provided an announcement of the place, time, and subject matter of Professor Cushman's lecture, and indicated that the questionnaire sought information about student reactions to the prospective lecture. The questionnaire itself was 9 pages long for time 1, with a one-page message and one more page of questions for time 2. The

items are discussed below in the approximate order of their appearance on the questionnaire.

Behavioral Intention.

Subjects indicated their answers to the question, "Professor Cushman of the MSU Department of Communication intends to give a public lecture on the topic "Family Communication." will you attend that lecture?" Answers were marked on a seven-point scale ranging from "Definitely Not" to "Definitely Yes."

Belief about Extrinsic Value.

Subjects responded to the question:
Attending a lecture by Professor Cushman of the MSU Department of Communication on the topic "Family Communication" would be . . .

	Very	Quite	Slightly	Neutral	Slightly	Quite	Very	
Punishing:	_____	_____	_____	_____	_____	_____	_____	:Rewarding

Belief about Intrinsic Value.

Subjects response to the same question, on a seven-point scale ranging from "unpleasant" to "pleasant."

In order to duplicate Fishbein's procedures, subjects also responded to this question on a scale ranging from "good" to "bad." They were also asked of their certainty on these and other answers.

Personal Normative Beliefs.

The following question tapped students' beliefs about their normative obligations to attend:

The next question concerns whether any moral obligations which you personally feel toward yourself or others will affect your decision whether to attend a lecture on family communication.

Do you think that attending the lecture is something you ought to do or something you should not do?

Obligation Not to Attend			No Obligation Either Way			Strong Obligation To Attend
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

Social Normative Beliefs.

Three questions tapped social normative beliefs for three possibly influential reference groups: friends, professors, and family. Subjects were asked, "Regardless of your own personal views, would each of the following kinds of people feel you had a moral obligation to attend such a lecture? On the average, would each group think that this is something you ought to do, or something you should not do?" Responses were registered on scales like that used for personal normative beliefs.

Motivation to Comply (Rankings.)

Students were asked to rank items corresponding to the questions cited above--"what would be rewarding to me,"

"what I feel I should do," "what my best friends would say I should do," etc.--"according to their importance to you in deciding whether to attend a lecture on Family Communication."

Motivation to Comply (Ratings).

Subjects were then asked to rate each of the six items they just ranked on seven point scales ranging from "Very Important" to "Very Unimportant."

Exposure.

Subjects were asked how much they knew (including information from all possible sources) about the following objects: family communication, public lectures, MSU Department of Communication, and Professor Cushman. For example:

	Know Nothing At All		Do Not Know Very Much		Know Fairly Well		Know Extremely Well
FAMILY COMMUNICATION	: 1	2	3	4	5	6	7 :

In addition, subjects were asked whether they had attended any prior lecture specifically about family communication, and about whether they had taken courses "in which family communication was a major topic of discussion."

Attitudes Toward Related Objects.

Subjects rated the four 'objects,' family communication, MSU Department of Communication, public lectures, and

Professor Cushman, on semantic differential scales ranging from punishing to rewarding, good to bad, pleasant to unpleasant.

Demographics.

Subjects indicated their class standing, sex, marital status, number of children, whether communication was their major, and their date of birth (for matching purposes).

Family Tie.

Subjects responded to the question,"How close do you feel to your family?" on a seven point scale from "Very close" to "Very distant."

Attitude Toward the Object.

The "object" most relevant to the behavior studied here was determined to be "instructing people in techniques of family communication." In an operational technique validated by Schwartz and Tessler (1973), subjects were presented with five objections to family communication instruction. They were asked "how much merit" they found each to have as an objection to "classes about family communication." A sample question:

	No Merit	Some Merit	Very Much Merit
After learning family communication techniques, people become overly self-conscious about their communication with their families.	— — — — — — —		

Questions Added in Time 2

In the second wave of questionnaires, subjects were asked six additional questions. They were asked:

--whether they filled out a time 1 questionnaire
--whether they had heard about the lecture from any outside source
--whether they had talked with anyone about the lecture
--whether they knew of any reason why they could not attend the lecture
--how often they generally attended public lectures.

In addition, as a manipulation check, subjects in treatment groups were asked, immediately after reading the message, to state its main point.

Message Variables

As was mentioned before, the three treatment messages were designed to suggest either that (1) attending the lecture would be rewarding, or (2) subjects had a moral obligation to attend, or (3) subjects' families would expect them to attend. But what we wanted the messages to express and argue for, may not come across in the actual messages, as they are interpreted by naive readers. I therefore sought from naive readers an estimate of the relative impact of the three messages.

Students in undergraduate communication classes were each presented with one message and a questionnaire. Before reading the message, they were informed of my research purpose, the subject of the message, and six possible reasons for attendance:

--because attendance would be pleasant.
--because attendance would be rewarding.
--because they had a duty to attend.
--because their friends would expect them to attend.
--because their best professors would expect them to attend.
--because their families would expect them to attend.

The students read the messages, then were asked to rank the six reasons on the basis of their relative importance in each message, and to rate the messages on the amount of information relevant to each reason they contained, on a seven-point scale from "all" to "none" of the information. Their responses were averaged for each message to provide an estimate of the amount of information in each message supporting each reason. (In Table IV below, estimates of message mass derived by this technique are reported.)

In this chapter we have examined the design and operational definitions used in this experiment.

CHAPTER III

DATA ANALYSIS AND RESULTS

In the next two chapters, I shall describe the data analysis done to test the hypotheses and its conclusions, then make a few more general statements about conclusions that might be drawn from the data, and finally, in Chapter IV, draw conclusions about the study as a whole. The first five hypotheses are so closely related to Dulany's use of his own model, and to Fishbein's and Schwartz and Tessler's analyses of it, that the initial analysis is practically dictated by their prior examples. The analysis relevant to the last two hypotheses is somewhat more tentative, for a number of reasons.

The First Four Hypotheses

The first four hypotheses, as stated in Chapter I, are as follows:

H 1. The relationship between B_{EV} and BI is necessary (for at least one treatment condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 2. The relationship between B_{IV} and BI is necessary (in at least one condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 3. The relationship between NBP and BI is necessary (in at least one condition), contingent (on MC), stochastic, irreversible, and coextensive.

H 4. The relationship between NBS and BI is necessary (in at least one condition), contingent (on MC), irreversible, stochastic, and coextensive.

Generally, the most important implication of each of these hypotheses is that each component of the model is an important predictor of behavioral intention in at least one treatment condition, at least one point in time. This implication, and the hypotheses themselves, can be tested by examining the results of regression analyses performed on the data, as the model itself strongly suggests and as Dulany and Fishbein have done in the past. Using this approach, the hypotheses would be confirmed if, for every component, in at least one treatment condition its regression coefficient were significantly different from zero. That would mean that, inside the treatment group, that component of the model is important and useful. The full results of the analysis are given in Table 1. (Here, and throughout, $\alpha<.05$ is set for significance.)

Regression equations were estimated for the model as a predictor of Behavioral Intention at time 1 and 2. Within each time-period, overall regressions for the whole sample, as well as regressions for each treatment or control group, were calculated. Three different forms of the equation were

calculated in each case-one using Motivation to Comply as measured by semantic differential ratings, one leaving out the MC factor altogether (to provide information about Fishbein's assertion that the factor can be dropped from the theory without loss), and one using MC as measured by ranking--the ranking of propositional forms that was requested of subjects before they filled out the semantic differentials. (The reason for computing alternate forms will become more apparent in the sequel.)

As can be determined from Table I, the components corresponding to Belief in the Extrinsic Value of the act, Belief in the Intrinsic Value of the act, and Social Normative Beliefs are all, at least sometimes, important predictors of Behavioral Intention. (BEV is significant in 6 cases, BIV in 6, and NBS in 4.) (The probability of each of these patterns of findings is a good deal less than .05.) In no cell does Personal Normative Belief as a component have a beta weight which differs significantly from 0. Thus, Hypotheses 1, 2, and 4 may derive support from this data, while Hypothesis 3 is not supported by the data.

Other results of the analysis, though, seem to lend support to the inclusion of NBP in the model. First, the component corresponding to NBP does in several instances have a fairly large beta weight, though it is not statistically significant (e.g., .2117 or .2389 in the NBP group, time 1, .3201 in the control group, time 1). Second, this hypothesis,

like H1, H2, and H4, requires the assumption that, if NBP could be triggered as a determinant of BI, it was triggered--that is, that the NBP group manipulation was successful. There is some reason to doubt this, as shall become more apparent in our discussion of the message variables below. Third, and most important, the NBP component is very important in predicting change in behavioral intention, as becomes apparent when we examine Table 2. The third component of the model is in at least one case (MC form, Attitudinal group), the most important and the only significantly predictor in the model. It may therefore be unwise to drop this component from the model: it is surely distinguishable from the other components of the model and from behavioral intention, and sometimes makes significant contributions to explanation; at least further examination of the issue is indicated.

Hypothesis 5: The relationship between a linear combination of the components MCx BEV, MCxBIV, MCxNBP, MCxNBS, and BI is necessary, sufficient, deterministic, irreversible, and coextensive.

The fifth hypothesis concerns the adequacy of the model as a whole. Are the components powerful and immediate predictors of Behavioral Intention? Two ways of testing this hypothesis were suggested in Chapter I. First, we can examine the multiple correlation coefficients to see whether the model, in various forms, accounts for a substantial proportion of the variance in BI. This will give us some index of the

predictive power of the model. Second, we can see whether the model mediates the affects of other variables that are strongly related to BI--whether, for example, a variable that can cause change in BI must "first" cause change in one or more of the model's components.

With respect to the first test, the results are mixed. (See Table I.) In the overall sample, and in the Attitudinal and NBP message treatment groups, the model does explain a significant, and sometimes very substantial, proportion of the variance. In the NBS and Control conditions, though, the model fails to explain a significant proportion of the variance.

It is not extremely difficult to find a possible explanation of these findings. Given a very small sample size in some of the groups (due to mistakes in questionnaire completion), we might expect great instability in the correlations, due to sampling error. This would account for the extremely high R^2 found in the two treatment groups (Attitudinal and NBP), too. Of course, this means that the beta weights found in the groups are also unstable. We might also note that our coefficients are in no case as large as those found in laboratory experiments. On the whole, the hypothesis seems to have been supported, but less strongly than we would have desired.

To perform the second test of the hypothesis, I examined the relations of certain variables, external to the

model, with behavioral intention. The statistical hypothesis implied by H5 is that the partial correlation between any outside variable and BI, when controlled for the values of components of the model, is not significantly different from 0. Results of tests of this hypotheses are presented in Table 3. The "raw" (uncontrolled) correlations of all variables presented are different, significantly, from 0. In 26 cases (17 variables, 9 at both time 1 and time 2), controlling for the components of the model reduced the correlation substantially, so that it was not significantly different from 0. These cases fulfill the hypothesis. But, in five cases, controlling for the components of the model did not substantially enough reduce the original correlation to make the partial correlation not significantly different from 0; indeed, in one case partialling increased an already significant correlation (Reasons, time 2), and in another case partialling doubled the value of an insignificant correlation, making it significantly different from 0 (Attitude toward family comm., #2, time 2). Thus, altough the model mediates the effects of a wide number of variables, five cases prove that it is not a sufficient immediate determinor of BI.

The two "Reasons" variables deserve some comment here. They are two-valued variables. The first indicates whether or not the subject said he had a reason why he could not attend the lecture. The second indicates whether or not he

had a schedule conflict--whether he was too busy or had another meeting at that time, or had to be out of town--and so could not attend the lecture. Before partialling, their correlations with BI are -.29 and -.35, respectively; after partialling, the correlations are each approximately -.35. The indication is that either of these variables, insofar as they indicate schedule conflicts, explains a fairly large and independent portion of the variance in BI. What they explain, the components in my model cannot explain--thus, schedule conflicts, etc., set an upper limit in the explanatory power of the model. Note also that this variable is usually automatically controlled in a laboratory, usually by the subject's sheer presence to participate in the experiment.

In Table 2, a more inclusive test of the necessity and sufficiency of the model is undertaken. There, I attempt to predict change in BI on the basis of change in the components. If H5 is completely correct, change in BI should take place only because of change in the components of the model, and the strong relation present at times 1 and 2 should also be present in the 'change equation.' Once again, support for the model is uneven; in particular, in the NBP message group, strong relationships present at time 1 and time 2 disappear when we look at the change relationships. (In the regression equations reported in Table 2, I have added one more variable to the equations--Behavioral Intention at time 1. This was done to remove the often-present spurious effect

due to relation between change in the model's components and the initial point at which we began to study change--time 1. This procedure thus removes bias in the estimation of the regression coefficients (Werts and Linn, 1970; Cf. also Harris, 1962).) On the whole, then, it would be unwise to conclude on this evidence that the model is an immediate, necessary, and sufficient determinor of behavioral intentions. The idea that a relationship exists is supported; the proposition that it mediates the effects of all other variables is simply untrue.

The Communication Hypotheses

The hypotheses read as follows:

H 6. The relationship between MM/PM for any component, including MC as a multiplier, and change in that component, is necessary, sufficient, deterministic, irreversible, and coextensive.

H 7. The relationship between message condition and change in BI is contingent (on the effect of MM/PM upon the model's determining variables, including MC), stochastic, irreversible, and sequential.

These hypotheses cannot be tested directly, since no prior mass measurements for each component of the model were made. However, comparatively indirect tests can be made, using four measures of exposure to relevant attitudinal objects as indirect indicators of prior mass.

Message Mass (MM), for each message treatment condition, was measured by asking students in 3 Communication 100 classes to determine, for each message, how much of the

information in the message supported each component proposition in the model. Thus, there are four variables involved: mass of the message relative to each propositional form; and each of these variables takes on four values, one for each treatment group, plus a value of 0 for the control group. Two different sets of questions, alternative measures of message mass, yielded values of message mass in the three messages that correlated. .98+ (Spearman rank-order correlation for the values for all three messages, all six propositions dealt with (including expectations of friends, professors, and family under social normative beliefs.)) This is an indication that the measurement of "mass" in various messages relative to various propositional forms is at least ordinally highly reliable. (See Table 4)

Prior Mass (PM) measured at time 1 in four different ways, for purposes of these tests, as exposure to: family communication, the Communication Department, public lectures, and Professor Cushman. Message Mass relative to each propositional forms was divided by each of these exposure items to yield four indices of MM/PM for each propositional form--a total of 16 MM/PM variables. These are the message variables used to test H6.

The findings in Table V seem to confirm H5, at least for the second and fourth components of the model. There is evidence of a relation between the mass ratio, relative to those components and change in those components. A closer

examination of the data, however, revealed that this relationship obtained between mass ratios relative to all components, and change in each of these two components. This can be seen by comparing pairs of columns in Table V; the second column gives the average correlation between component change and mass ratio, no matter with respect to what component mass was measured. In short, the finding is spurious--it exists because of a sharp contrast between the control group and the other groups (between no-message and message conditions), for change in components 2 and 4. When the control group is removed, findings are so mixed, for all components, as to be inconclusive.

Hypothesis 7 can be examined by looking at Table 6. There are no major differences between group means on Behavioral Intention, so the typothesis cannot be tested as stated. On the other hand, if we assume that the messages were not sufficiently different to produce significant differences in intention, then the data is consistent with the hypothesis. Does this finding cast doubt on the results of H6, since mass ratio is sometimes significantly related to component change, which is in turn related to change in BI? No; the correlations involved are fairly small, so that, unless there were an independent effect of MM on BI, no raw effect could be expected. I tested for an independent effect, and found none whatsoever.

Additional Comments

Two additional comments, based on the results of the analysis, seem worthy of mention here. First, it might be instructive to compare, in Tables 1 and 3, the results when Motivation to Comply is measured in different ways, or not included in the model at all. No clear pattern of superiority or inferiority emerges for a model that includes MC, or that measures it one way rather than another. If there is any noticeable trend, it is that social expectations (NBS) have a greater role in explaining BI when MC is included in the model and is measured by rank-order. Moreover, it is slightly more often that the model, and its components, attain significance when MC, measured by ranking, is included in the equation.

However, the intent of the MC operationalization was to have subjects recognize the comparative differences between the importances of components when they marked the semantic differentials, rating MC. The experimental results seem to me to indicate that this purpose was not accomplished in the questionnaire instructions, and thus that MC as a variable deserves more study, with an eye to clearer and more valid measurement. In particular, when we are studying, or designing a message to influence, the perceived social expectations on a subject, we ought to take the motivation to comply with these expectations into account.

The second point I would make relates to the message manipulation used in the experiment. The results, and the measures of message mass, show clearly that the messages were not sufficiently different in content and aim to distinguish among the experimental groups--in every case, the mass of the message was taken by subjects to be focussed on the proposition that attending the lecture would be rewarding--BEV. Given this lack of difference within the manipulation, it may not be surprising that treatment groups displayed no systematic differences in their responses to the messages. Clearly, a reprication is indicated, using more powerful and more distinct messages. It is possible that the measure of message mass introduced above will provide a means, unavailable up to now, of insuring the "validity" of a manipulation by pretesting. Also, a message which more clearly focuses on NBP than those actually used, will provide a fairer test of Hypothesis 3.

CHAPTER IV

CONCLUSIONS

This thesis has included the description of a 'new' model of message-attitude-behavior relationships, and a test of that model. The model is new in the sense that it is rederived from Dulany's original theory, using, I believe, sounder principles of theory-building than Fishbein has used previously.

The first five hypotheses dealt with the model *per se* as a predictor of Behavioral Intention. The statistical tests showed that subject beliefs about the extrinsic reward he might derive, the intrinsic pleasure he might feel, and the expectations of others were all influential in determining subject intentions. (That is, H1, H2 and H4 were confirmed.) While the model as a whole showed a fairly high correlation with behavioral intention, it proved not to be as substantial a predictor as expected, nor to mediate the influence of all external variables. Thus, H1, H2, and H4 are accepted, H3 and H5 rejected with partially extenuating conditions. A qualification must be placed on these findings, though. The pattern of findings is uneven and unpredictable; while they differ from chance, they do so in no clearly recognizable

direction. The problem here may be caused by how sample size sampling error weak manipulations, or all three. I cannot find, as Fishbein did in several studies, a straight--forward explanation for the fluctuations in beta weights. (The fluctuation is duplicated in the unstandardized regression coefficients.)

Another perspective on these findings comes when we compare them to selected findings of Dulany, Fishbein (et. al.), and Schwartz and Tessler. In his experimental study of verbal conditioning and propositional control, which was probably most influential on the development of Fishbein's and my models, Dulany (1968) found that his components accounted for 77% fo the variance in BI (p. 237). In their review of several studies using Fishbein's model, Ajzen and Fishbein (1973) find many multiple correlations (R's) in the range .80-.95-two exceptionally low R's have values .385 and .594--the second of which exceeds the values found for all regressions run on the total groups (R ranged from .49+ to .58 for the overall group) and the average R was .808. These studies ranged from tightly specified experiments to very broad-ranging surveys. Schwarz and Tessler (1973) found a multiple correlation of about .50 in their study about organ donation. On the whole, the present study does not duplicate these various stronger findings.

The communication hypotheses--that message mass, relative to prior mass, would affect the model components

and, through them, intentions, were not supported but were consistent with the results of the study. The manipulations, as measured by message mass relative to various components, were not easily distinguishable, and may thus have failed to produce the variance needed to confirm the hypothesis. At any rate, the findings which seemed to confirm H6 were seen to be produced instead by the strength of the message-no message contrast-a spurious effect. H7 is consistent with the data; since the contrast among message treatments was not clear, no differences among the groups were observable.

Among the contributions of this study to future research are: its introduction of an operational definition of message mass relative to various model components, which seems to have utility in predicting effects of messages on attitudinal variables, and the discovery of a new propositional form, in Dulany's terms, which might be phrased as "Schedule conflicts prevent me from performing act X."

Among the problems which should be corrected in future studies are: lack of multiple indicators for component variables, low sample sizes in treatment cells, weak manipulations, and model components which may not have been phrased so as to seem independent to subjects.

APPENDIX I

DULANY'S THEORY

Dulany's theory was formulated as a new approach to the field of conditioning, especially verbal conditioning, which has been dominated by behavioristic paradigms. Behaviorists usually argue that learning occurs under the control of functional reinforcers--rewards or punishments--with or without subject awareness of whether he is being conditioned o of the principle governing the conditioning--i.e., the rule of behavior he is being taught. Dulany argues that theories taking account of subject awareness are advances over simple behavioristic theories for several reasons. First, such a theory can explain why certain verbal statements by experimenters are in fact reinforcing in certain situations and not in others, while other verbal statements are not reinforcers. Second, conditioning affects like speed of learning and overall increase in accuracy have a quite wide variance over subjects. In some experiments, nearly all of this variance can be explained by reported subject awareness of the rule being taught or of a "correlated" (functionally similar) rule. In at least one experiment, conditioning which did not induce subject awareness of a fitting rule governing reinforcement could produce no significant increases in accuracy

of response over chance (Dulany, 1961). These results led Dulany to formulate a "theory of propositional control" (1962, 1968). The theory has seven main principles.

1. Mental contents--subjectively received information, of which we are aware--are encoded as propositions.

2. The effect of information depends on the form of the proposition in which it is mentally encoded.

3. There exists a class of behaviors--conscious acts--which are entirely under the control of the subject, and thus are determined by information held by him.

4. Certain propositional forms are particularly relevant to the determination of behavior:

a. RHd--Hypothesis of the Distribution of Reinforcement--of the form, "Response Class X is followed by reinforcement."

b. BH--Behavioral Hypothesis--of the form, "Response class X is what I am supposed to do."

c. BI--Behavioral Intention--of the form, "Response class X is what I am trying to do."

d. RHs--Hypothesis of the Significant of a Reinforcer--of the form, "Occurrence (nonoccurrence) of the consequence meant that I had just done what I was supposed to do (not to do, or neither).

e. RSv--Subjective Value of a Reinforcer--of the form, "Occurrence (or nonoccurrence) of the consequence felt pleasant (or neutral, or unpleasant)."

f. MC--Motivation to Comply--of the form, "Whatever I am supposed to do (or not to do), I want (or want not, or neither) to do."

5. The determinative relations among these propositional forms are given by the following equations:

$$W_0(\text{RHd x RHs}) = \text{BH}$$

$$w_1(\text{RHd x RSv}) + w_2(\text{BH x MC}) = \text{BI}$$

6. For conscious acts, BI determines behavior, provided that the actor is able to do what he intends. Such acts are said to be under propositional control--that is, they are under the control of certain propositions of which we are aware and about which we can report.

7. The research paradigm implied is experimental--subjects are asked to perform fairly simple acts, different reinforcement schedules are administered, and questions asked during the series of responses are used to get six classes of propositional answers from subjects. These answers are cast into a regression format, used to predict BI and behavior.

I should note that the brevity required of this summary of Dulany's thought forces me to ignore certain nuances. For instance, Dulany would merely say in (1) above that a mental content "can be represented as a proposition." (1968, p. 342). But a reading of Dulany (1968) makes it clear that the interrelations and dynamics of the components of his model follow strictly the patterns of natural implications of these propositional forms (thought not a formal logic of any apparent sort). If mental contents can be represented as propositions and follow the logic underlying those propositions,

then we are justified in saying that they are encoded as propositions.

APPENDIX II

DERIVATION OF AN ALTERNATIVE MODEL

There are three changes in Dulany's model required to render it applicable to message-attitude-behavior study. One of these is along the lines suggested by Fishbein; the others depart from his model.

1. The term BH--the subject's hypothesis about what he is supposed to do--must be split because of our shift of focus from the conditioning laboratory to the external, social world. The subject no longer is oriented (we hope) to respond to what the experimenter is conditioning him to do; instead, he must adjust his activities to (a) different groups of significant others, and (b) the demands of his own moral code, if such demands are present. This means that the BH term of the model is transformed into several components, from "I am supposed to do X," to (a) "My family (or some other group of significant others) expects me to do X," a propositional form which we shall call a social normative belief, or NBS; and (b) "I (morally) should do X," a propositional form which we shall call a personal normative belief, or NBP. The relevance of personal normative beliefs or the expectations of any particular group of significant

others is relative to act X, and there is one social normative belief for each relevant group of significant others.

2. Similarly, RHd--the hypothesis of the distribution of reinforcement, of the form, "if I do X, consequence Y will ensue," is transformed because, for a given social act, it may be intrinsically pleasurable or it may be done on account of its desired and rewarding consequences. Therefore, RHd becomes (a) a Belief about the Intrinsic Value of the act--BIV--of the propositional form "Doing X would be pleasant," and (b) a Belief about the Extrinsic Value of the act, or BEV, of the propositional form "Doing X would be rewarding."

3. Both for Ajzen and Fishbein (1971) and for Schwartz and Tessler (1973), the most troublesome term to operationalize has been MC--motivation to comply. The main advance made here is to note that, like MC, RSv--the subjective value of the reinforcer--is a subjective measure of a 'motivator,' the reinforcer, although the reward is a direct one rather than due to meeting a given set of expectations. What is intended, in fact, is a measure of the comparative motivations to obey one propositional form rather than another. If this is true, we can measure MC for all propositional forms so as to induce Ss to rate their comparative importance in determining BI. Thus MC is transformed into a comparative variable, measured for each component of the model.

The resulting new model is:

$$B\sim BI = b_1(MCxBEV) + b_2(MCxBIV) + b_3(MCxNBP) + b_4(MCxNBS)$$

ABBREVIATIONS FOR TABLES

*=p<.05; **=p<.01; ***=p<.001

BEV stands for findings related to the Belief in Extrinsic Value component of the model (rewarding-punishing).

BIV stands for findings related to the Belief in Intrinsic Value component (pleasant-unpleasant).

NBP stands for findings relevant to the Personal Normative Belief component.

NBS stands for findings relevant to the Social Normative Belief component.

MC, MCR, and (NoMC) stand for different forms of the equation model on a 1-4. MCR stands for the equation, calculated using Motivation to Comply with each component, measured by rank-orders. MC stands for the equation with the MC factor measured by semantic differential. (NoMC) stands for the model, excluding the MC multiplier.

In Table IV, column 1 was determined by averaging judge rank-orderings of the amount of information relevant to each model component, in each message. Column 2 is equivalent to 6 minus the number in Column 1. Column 3 was calculated by averaging judges' semantic differential ratings of message mass for each component.

TABLE I

Results of Multiple Regression Analysis

Form	Component	Time 1 R^2	Time 1 Beta Weight	Time 1 Additional Variance Explained	Time 2 R^2	Time 2 Beta Weight	Time 2 Additional Variance Explained
MCR		.3304***			.3406***		
	BEV		.3558***	.1645		.3525***	.2297
	BIV		.2349**	.0479		.1987	.02233
	NBP		.1457	.0300		-.0148	.00012
	NBS		.2740***	.0881		.2555***	.0885
MC		.2498***			.3302***		
	BEV		.2554*	.1735		.2839*	.2574
	BIV		.2257*	.0338		.2665*	.0343
	NBP		.0164	.0181		-.0472	.00003
	NBS		.1563	.0243		.1691	.0385
(NO MC)		.3346***			.3294***		
	BEV		.3048**	.2415		.3690**	.2962
	BIV		.1667	.0159		.1049	.0047
	NBP		.1529	.0551		.0502	.00197
	NBS		.1758	.0222		.1470	.0265

TABLE 7--Continued

Form	Component	Time 1 R^2	Time 1 Beta Weight	Time 1 Additional Variance Explained	Time 2 R^2	Time 2 Beta Weight	Time 2 Additional Variance Explained
Group Receiving Attitudinal Message							
MCR		.5171**			.3846*		
	BEV		.3482	.2273		.6268*	.3763
	BIV		.5160**	.2373		.00295	.00000
	NBP		.02649	.00056		-.01477	.00012
	NBS		.07910	.0520		.0898	.00458
MC		.5107**			.3151		
	BEV		.2961	.2463		.4285	.2888
	BIV		.5151*	.19273		.2541	.0201
	NBP		.06089	.0712		-.0499	.0017
	NBS		.0267	.0005		-.12688	.0045
(NO MC)		.6066***			.3641*		
	BEV		.4384*	.37496		.7735*	.3452
	BIV		.4379*	.37496		-.2350	.0186
	NBP		-.0072	.00003		-.0126	.00000
	NBS		.2030	.0794		-.3375	.00026

TABLE 7--Continued

Form	Component	Time 1 R^2	Time 1 Beta Weight	Time 1 Additional Variance Explained	Time 2 R^2	Time 2 Beta Weight	Time 2 Additional Variance Explained
Group Receiving Personal Normative Belief Message							
MCR		.5408***			.48907**		
	BEV		.2578	.1915		.3857	.2498
	BIV		.4513	.1378		.2174	.02298
	NBP		.2389	.0897		-.03596	.00095
	NBS		.3090*	.1217		.4235*	.2153
MC		.46999**			.5899***		
	BEV		.0072	.2167		.3744*	.43288
	BIV		.6223**	.2075		.3612	.0915
	NBP		.2112	.0134		-.2212	.0119
	NBS		-.0448	.0324		.3374	.0538
(NO MC)		.5703***			.4713**		
	BEV		.3063	.46398		.3553	.4110
	BIV		.3953	.0622		.2756	.02866
	NBP		.01836	.01521		.00357	.0257
	NBS		.2195	.0289		.1478	.00596

TABLE I--Continued

Form	Component	Time 1 R^2	Time 1 Beta Weight	Time 1 Additional Variance Explained	Time 2 R^2	Time 2 Beta Weight	Time 2 Additional Variance Explained
Group Receiving Social Normative Belief Message							
MCR		.2818			.3359		
	BEV		.2885	.1298		.3952	.2847
	BIV		.2643	.0544		.1276	.0078
	NBP		-.0927	.00000		.0173	.0171
	NBS		.2537	.0976		.1667	.0263
MC		.2139			.2899		
	BEV		.2557	.1471		.3113	.2328
	BIV		.2362	.0534		.1219	.00745
	NBP		.0225	.01095		.03798	.0198
	NBS		.05796	.0024		.1936	.0298
(NO MC)		.3128			.3333		
	BEV		.3722	.2710		.3948	.2788
	BIV		.1031	.0083		-.0267	.0003
	NBP		-.04385	.00014		.1679	.0432
	NBS		.2151	.0324		.1471	.0110

TABLE 7--Continued

Form	Component	Time 1 R^2	Time 1 Beta Weight	Time 1 Additional Variance Explained	Time 2 R^2	Time 2 Beta Weight	Time 2 Additional Variance Explained
Control Group							
MCR		.2595			.1775		
	BEV		.5414*	.2127		.0052	.0173
	BIV		-.08299	.0035		.3425	.0851
	NBP		.1776	.0239		.0531	.0187
	NBS		.1507	.0194		.2223	.0738
MC		.2295			.2083		
	BEV		.5515*	.1374		-.0149	.0329
	BIV		-.4792	.0515		.3134	.0619
	NBP		.3201	.0324		-.1593	.0118
	NBS		-.0525	.0082		.3281	.1017
(NO MC)		.2040			.1911		
	BEV		.2340	.0723		.0156	.0615
	BIV		-.1109	.0090		.2382	.0345
	NBP		.3965	.1161		.0115	.0002
	NBS		.0950	.0069		.2668	.0913

*=p<.05 **=p<.01 ***=p<.001
MRC=Means Motivation to Comply measured by rankings.
MC=Means Activation to Comply measured by Semantic Differentials.

TABLE II

Regression Equations for Change in Behavioral Intention

Group	Form(MC)	Variable (Component)	R^2	Beta Weight	Additional Variance Explained
Overall					
	MCR		.3393***		
		BI, Time 1		-.4505***	.1674
		BEV Change		.3271***	.0668
		BIV Change		-.0191	.00032
		NBP Change		.2297**	.0461
		NBS Change		.2527**	.0587
	MC		.2905***		
		BI, Time 1		-.4236***	.1674
		BEV Change		.1873	.0261
		BIV Change		.0459	.0431
		NBP Change		.0604	.00497
		NBS Change		.1958*	.0488
	(No MC)		.2720***		
		BI, Time 1		-.4321	.1674
		BEV Change		.2175*	.05436
		BIV Change		.0348	.0010
		NBP Change		.0917	.0082
		NBS Change		.1262	.04095
Additudinal Message Group	MCR		.5420**		
		BI, Time 1		-.6708***	.4031
		BEV Change		.2169	.0346
		BIV Change		-.2412	.0585
		NBP Change		.1776	.0361
		NBS Change		.1052	.0094
	MC		.5762**		
		BI, Time 1		-.7981***	.4031
		BEV Change		.1332	.0129
		BIV Change		-.3082	.0774
		NBP Change		.3582*	.0799
		NBS Change		.06496	.00215
	(No MC)		.5935***		
		BI, Time 1		-.67918	.4031
		BEV Change		.3223	.1487
		BIV Change		-.2069	.0329
		NBP Change		.0838	.0048
		NBS Change		-.0075	.0037

TABLE II--Continued

Group	Form(MC)	Variable (Component)	R^2	Beta Weight	Additional Variance Explained
NBP Message Group	MCR		.2176		
		BI, Time 1		-.3375	.0453
		BEV Change		.3072	.881
		BIV Change		.0382	.0029
		NBP Change		.3147	.0452
		NBS Change		.2164	.0421
	MC		.2389		
		BI, Time 1		-.3207	.0453
		BEV Change		.1822	.0296
		BIV Change		.1433	.0669
		NBP Change		.0862	.0378
		NBS Change		.2846	.0592
	(No MC)		.1797		
		BI, Time 1		-.2709	.0453
		BEV Change		.1470	.02498
		BIV Change		.1563	.0338
		NBP Change		.1434	.0435
		NBS Change		.1932	.02998
NBS Message Group	MCR		.4539*		
		BI, Time 1		-.2830	.0857
		BEV Change		.4553*	.1765
		BIV Change		.2395	.1740
		NBP Change		.1980	.01545
		NBS Change		.0872	.0021
	MC		.4895*		
		BI, Time 1		-.2258	.0857
		BEV Change		.2942	.2652
		BIV Change		.3663	.0983
		NBP Change		.0982	.0232
		NBS Change		.1474	.0171
	(No MC)		.4139		
		BI, Time 1		-.2169	.0857
		BEV Change		.0596	.0028
		BIV Change		.4287*	.2138
		NBP Change		.0564	.0026
		NBS Change		.3223	.10897

TABLE II--Continued

Group	Form(MC)	Variable (Component)	R^2	Beta Weight	Additional Variance Explained
Control Group					
	MCR		.3968		
		BI, Time 1		-.4495	.2558
		BEV Change		.2440	.0236
		BIV Change		-.2002	.0032
		NBP Change		.2466	.0359
		NBS Change		.3858	.0787
	MC		.3717		
		BI, Time 1		-.3692	.2558
		BEV Change		.2176	.0013
		BIV Change		-.2530	.0171
		NBP Change		-.1506	.0294
		NBS Change		.2364	.0684
	(No MC)		.3497		
		BI, Time 1		-.4928*	.2558
		BEV Change		.0434	.0006
		BIV Change		-.1088	.00598
		NBP Change		-.1559	.02937
		NBS Change		.2657	.05796

TABLE III

Raw and Partial Correlations of BI with External Variables, Controlling for Model Components

Variable	TIME I			TIME II		
	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form
Exposure to Comm Dept.	.137(.031)	-.011(.450)	-.021(.406)			
Exposure to Cushman	.240(.001)	.111(.096)	.131(.066)	.177(.010)	-.001(.498)	.017(.423)
Attitude to Fam. Comm.	.197(.004)	.093(.137)	.033(.356)	.183(.008)	-.080(.168)	-.058(.248)
Attitude to F.C. --Q. 2	.214(.002)	.146(.042)	.074(.199)	.081(.145)	.161(.026)	.169(.024)
Attitude to F.C. --Q. 3	.165(.013)	.093(.136)	.077(.189)	.135(.038)	-.966(.213)	-.059(.243)
Att. to Com. Dept. --Q. 1	.358(.001)	.285(.001)	.236(.003)	.317(.001)	.052(.265)	.026(.380)
Att. to Com. Dept. --Q. 2	.196(.004)	.095(.131)	.056(.259)	.261(.001)	.040(.314)	.033(.348)

TABLE III--Continued

Variable	TIME I			TIME II		
	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form
Att. to Com. Dept. --Q. 3	.269(001)	.155(.034)	.119(.085)	.310(.001)	.106(.101)	.0997(.126)
Att. to Pub. Lec. --Q. 1	.226(.001)	.039(.322)	-.009(.460)	.222(.002)	-.058(.241)	-.105(.110)
Att. to Pub. Lec. --Q. 2						
Att. to Pub. Lec. --Q. 3	.256(.001)	.116(.087)	.058(.252)	.147(.026)	.065(.216)	.101(.119)
Att. to Cushman --Q. 1	.248(.001)	.118(.082)	.122(.080)	.202(.004)	-.080(.167)	-.074(.194)
Att. to Cushman --Q. 2	.245(.001)	.168(.024)	.154(.038)	.266(.001)	-.001(.497)	-.004(.481)
Att. to Cushman --Q. 3	-.230(.001)	-.066(.220)	-.024(.390)	.253(.001)	.041(.313)	.039(.326)
Att. to FC Lec. --Q. 4	-.133(.040)	-.065(.221)	-.052(.254)	-.230(.001)	-.031(.357)	-.009(.457)

TABLE III--Continued

Variable	TIME I			TIME II		
	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form	Raw Correlation	Partial Controlling for MC form	Partial Controlling for MCR form
Att. to FC Lec. --Q. 5	-.158(.019)	-.102(.114)	-.063(.233)			
Att. to FC Lec. --Sum	-.158(.019)	-.048(.310)	-.139(.055)			
Reasons not to go--form 1				-.351(.001)	-.345(.001)	-.3498(.001)
Reasons, Form II				-.289(.001)	-.351(.001)	-.3495(.001)

The first number is the correlation coefficient; the second (in parentheses) is the significance level--the smaller it is, the more significant is the correlation. If the significance level is .05 or lower, the correlation is judged to be significantly different from zero.

TABLE IV

Estimations of Message Mass

Treatment Group & Propositional Form	Estimate of Mass Rank	6.0 Minus Rank Estimate	Estimate of Mass (7 pt. scale)	Average
Attitudinal				
BEV	2.1	3.9	4.0	4.0
BIV	1.3	4.7	4.7-	2.6
NBP	3.0	3.0	2.3	2.6
NBS--Friends	5.1+	0.9-	0.8	0.9
NBS--Family	4.5	1.5	2.0	1.7
NBS--Profs	5.1	0.9	1.6	1.2
NBS--Total	---	---	---	1.3
Personal Normative				
BEV	3.2	2.8	3.3	3.0
BIV	2.0	4.0	4.4	4.2
NBP	2.6	3.4	3.1	3.3
NBS--Friends	5.0	1.0	1.3	1.1
NBS--Family	3.3	2.7	3.0	2.8
NBS--Profs	4.7	1.3	1.4	1.3
NBS--Total	---	---	---	1.7
Social Normative				
BEV	3.2	2.8	3.0	2.9
BIV	1.2	4.8	4.7+	4.8
NBP	3.3	2.7	2.6	2.7
NBS--Friends	5.3	0.7	9.9	0.8
NBS--Family	3.7	2.3	2.3	2.3
NBS--Profs	4.4	1.6	1.6	1.6
NBS--Total	---	---	---	1.56

The Spearman rank-order correlation between columns two and three is .98+.

TABLE V

Correlations Between (Message Mass/Exposures)
and Model Component Change

COMPONENT	EXPOSURE TO FAMILY COMM. Component-Specific Message Mass r	EXPOSURE TO FAMILY COMM. Average r for all Mass Measures	EXPOSURE TO PUBLIC LECTURES Component-Specific Message Mass r	EXPOSURE TO PUBLIC LECTURES Average r for all Mass Measures
BEV Change				
With Control Group				
MC	.1339	.1228	.1323	.1216
MCR	.0950	.0890	.1480	.1404
Without Control Group				
MC	.0217		.0819	
MCR	-.0364		.0952	
BIV Change				
With Control Group				
MC	.3059***	.2698	.0950	.0920
MCR	.3893***	.3514	.1553*	.1517
Without Control Group				
MC	.2035*		-.1760	
MCR	.2043		-.1525	
NBP Change				
With Control Group				
MC	-.0380	-.0330	-.0090	-.0046
MCR	-.0054	-.0233	-.0167	-.0326
Without Control Group				
MC	-.1319		-.1557	
MCR	-.1325		-.1421	
NBS Change				
With Control Group				
MC	.0899	.0959	-.0471	-.0454
MCR	.1981*	.1970	.0300	.0165
Without Control Group				
MC	-.0674		.3431***	
MCR	-.0812		.2774**	

TABLE V--Continued

COMPONENT	EXPOSURE TO COMM. DEPARTMENT		EXPOSURE TO DR. CUSHMAN	
	Component-Specific Message Mass r	Average r for all Mass Measures	Component-Specific Message Mass r	Average r for all Mass Measures
BEV Change				
With Control Group				
MC	.0620	.0567	.1500*	.1354
MCR	.0240	.0209	.0651	.0600
Without Control Group				
MC	-.0509		.0847	
MCR	-.0509		.0232	
BIV Change				
With Control Group				
MC	.1156	.0944	.1428	.1239
MCR	.2188*	.2091	.2793**	.2501
Without Control Group				
MC	-.0748		-.0699	
MCR	-.0338		.0260	
NBP Change				
With Control Group				
MC	.0116	.0089	.0325	.0280
MCR	.0019	-.0145	.1435	.1276
Without Control Group				
MC	-.1016		-.0252	
MCR	-.1200		.0150	
NBS Change				
With Control Group				
MC	.1053	.1021	.0896	.0944
MCR	.2300**	.2388	.1600*	.1607
Without Control Group				
MC	-.0668		-.0526	
MCR	-.1261		-.0867	

TABLE VI

Message Mass and Component Change--Means Across Groups

For Component:	Message Mass:				Mean Change for:			
	Attd. Message	NBP Message	NBS Message	Control Message	Attd. Group	NBP Group	NBS Group	Control Group
BEVxMC	4.0	3.0	2.9	0	29.04	35.26	36.00	34.00
BEVxMCR	4.0	3.0	2.9	0	35.49	34.00	34.53	32.97
BIVxMC	4.7	4.2	4.8	0	38.04	36.37	33.33	30.00
BIVxMCR	4.7	4.2	4.8	0	39.19	36.23	33.86	28.39
NBPxMC	2.6	3.3	2.7	0	37.00	37.47	34.36	35.53
NBPxMCR	2.6	3.3	2.7	0	36.71	39.00	36.00	36.31
NBSxMC	1.3	1.7	1.56	0	38.71	38.09	38.79	31.16
NBSxMCR	1.3	1.7	1.56	0	34.69	35.27	35.46	30.48
Change in Behavioral Intention					7.107	6.676	6.636	6.636

(Scaling constants of 35.0 in the first 8 rows, and 7.0 in the ninth, have been added to the real change score.)

SAMPLE QUESTIONNAIRES

Note: Following are examples of time I and time II questionnaires, and of the questionnaire used to obtain measures of message mass. The time II questionnaire had four forms: questions with no message manipulations, or with a message manipulation aimed at attitudes, or at personal normative beliefs, or at social normative beliefs. The time 2 questionnaire presented includes an attitudinal message; the two alternative messages appear immediately after that questionnaire. The sample of the message mass questionnaire also contains the attitudinal message--two other forms of it contained the other two messages, with no other differences.

MICHIGAN STATE UNIVERSITY

College of Communication Arts
Department of Communication

East Lansing • Michigan • 48824

On Wednesday, May 22 and Thursday, May 23, 1974 the Department of Communication will sponsor a lecture by Prof. Donald P. Cushman on Family Communication. This lecture will focus on the students role in the family. The lectures will be held at 7:00 P.M. in Room 504 South Kedzie Hall. All students who are interested are invited to attend.

In the next few minutes the Department of Communication would like to obtain some information from you regarding your reactions to such a lecture series. Three times in the next five weeks we will seek similar information on this subject. We are seeking this information for statistical purposes only. Your answers are entirely confidential. No one will be identified by name. Please do not put your name on this questionnaire. It is very important to you and to the Department that you answer each and every question as accurately as possible. Please read each question twice before answering it. Upon completion of the questionnaire please go back and check to see that you have answered all the questions to the best of your knowledge.

Thank you.

Joseph Woelfel
Chairman
Department of Communication Lectures Series

Professor Cushman of the MSU Department of Communication intends to give a public lecture on the topic "Family Communication". Will you attend that lecture?

Definitely Not			Even Chance Either Way			Definitely Yes
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

Attending a lecture by Professor Cushman of the MSU Department of Communication on the topic "Family Communication" would be...

	Very	Quite	Slightly	Neutral	Slightly	Quite	Very	
punishing	: 1	: 2	: 3	: 4	: 5	: 6	: 7 :	rewarding

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

good	: 1	: 2	: 3	: 4	: 5	: 6	: 7 :	bad

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

unpleasant	: 1	: 2	: 3	: 4	: 5	: 6	: 7 :	pleasant

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

The next question concerns whether any moral obligations which you personally feel toward yourself or others will affect your decision whether to attend a lecture on family communication.

Do you think that attending the lecture is something you ought to do or something you should not do?

Obligation Not To Attend			No Obligation Either Way			Strong Obligation To Attend
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

The next few questions ask how other people would react if you discussed with them whether you should attend a public lecture on the topic of Family Communication.

Regardless of your own personal views, would each of the following kinds of people feel you had a moral obligation to attend such a lecture? On the average, would each group think that this is something you ought to do, or something you should not do?

	Obligation Not To Attend			No Obligation Either Way			Strong Obligation To Attend
a) YOUR BEST FRIENDS WOULD SAY	1	2	3	4	5	6	7
b) YOUR BEST PROFESSORS WOULD SAY	1	2	3	4	5	6	7
c) YOUR FAMILY WOULD SAY	1	2	3	4	5	6	7

Below is a list of five factors which people often take into account in making decisions. Please rank these factors according to their importance to you in deciding whether to attend a lecture on Family Communication. Please rank the five factors in order of importance--"1" for most important, "2" for next most important, and so forth.

_____ What would be pleasant for me

_____ What would be rewarding for me

_____ What I feel I should do

_____ What my best friends would say I should do

_____ What my best professors would say I should do

_____ What my family would say I should do

How certain are you of these rankings?

Very Certain						Uncertain
1	2	3	4	5	6	7

Now consider each of the five factors by itself. How important to you will each of these factors be in deciding whether to attend a lecture on Family Communication?

a) What would be pleasant for me:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

b) What would be rewarding for me:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

c) What I feel I should do:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

d) What my best friends would say I should do:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

e) What my best professors would say I should do:

Very Important	1	2	3	4	5	6	7	Very Unimportant

How certain are you of this judgement?

Very Certain	1	2	3	4	5	6	7	Uncertain

f) What my family would say I should do:

Very Important	1	2	3	4	5	6	7	Very Unimportant

How certain are you of this judgement?

Very Certain	1	2	3	4	5	6	7	Uncertain

The next few questions concern how much you feel you know about certain things. In answering, consider any information you have gain ed from any source, including personal experience, from talking to other people, or from media like books, newspapers or television. How much do you feel you know about each of the following?

	Know Nothing At All		Do Not Know Very Much		Know Fairly Well		Know Extremely Well
a) FAMILY COMMUNICATION	1	2	3	4	5	6	7
b) PUBLIC LECTURES	1	2	3	4	5	6	7
c) MSU DEPARTMENT OF COMMUNICATION	1	2	3	4	5	6	7
d) PROFESSOR CUSHMAN	1	2	3	4	5	6	7

(Exposure)

Have you ever attended a lecture or seminar about the specific topic of family communication?

_____ Yes _____ No

Have you ever taken a course in which family communication was a major topic of discussion?

_____ Yes _____ No

Family Communication is...

Neutral

Punishing : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Rewarding

Good : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Bad

Unpleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Pleasant

The MSU Department of Communication is...

Neutral

Punishing : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Rewarding

Good : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Bad

Unpleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Pleasant

Public Lectures are...

Neutral

Punishing : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Rewarding

Good : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Bad

Unpleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Pleasant

Professor Cushman is...

Neutral

nishing : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Rewarding

Good : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Bad

Pleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Unpleasant

(Demographics & Miscellaneous)

Please answer the following questions about yourself:

1) Is Communication your Major field? _____ Yes

_____ No

2) What is your class standing? _____ Freshman _____ Senior

_____ Sophomore _____ Graduate Student

_____ Junior _____ Special

3) What is your sex? _____ Male

_____ Female

4) What is your marital status? _____ Single, never married

_____ Single, formerly married

_____ Engaged

_____ Married

5) Do you have any children? _____ Yes If yes, how many? _____

_____ No

6) How close do you feel to your family?

Average

Very Close : _____ : _____ : _____ : _____ : _____ : _____ : _____ : Very Distant
1 2 3 4 5 6 7

7) What is your date of birth? _____ _____ _____
Month Day Year

The following are some reasons that professors and others have given for not instructing people in techniques of family communication. How much merit do you find in each of these statements as objections to classes about family communication techniques?

	The statement has						
	No Merit			Some Merit		Very Much Merit	
After learning family communication techniques, people become overly self-conscious about their communication with their families.	1	2	3	4	5	6	7
After learning family communication techniques, family members often disturb patterns of communication inside the family, creating new communication problems.	1	2	3	4	5	6	7
Other family members often resent attempts by college students to change family communication patterns according to what they learn at school.	1	2	3	4	5	6	7
People who have learned family communication techniques develop rigid and unrealistic ideas about the ways their families should communicate.	1	2	3	4	5	6	7
Families are so different that family communication techniques which can be taught are often irrelevant to most family situations.	1	2	3	4	5	6	7

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On Wednesday, May 22 and Thursday, May 23, 1974, the Department of Communication will sponsor a lecture by Professor Donald P. Cushman on Family Communication. The lecture will be given both nights at 7:00 P.M. in Room 102 South Kedzie Hall. (NOTE: The room for the lecture has been changed from 504 to 102 South Kedzie.) All students who are interested are invited to attend.

We are once again asking a few minutes of your time to give us some information regarding your reactions to this lecture. We are seeking this information for statistical purposes only. Your answers are entirely confidential. No one will be identified by name. Please do not put your name on this questionnaire.

It is very important that you answer every question as accurately as possible. In order to do the required statistical analyses it is necessary that all the questions on your questionnaire be answered. Please read each question twice before answering it. Upon completion of the questionnaire please go back and check to see that you have answered all the questions to the best of your knowledge.

Thank you,

Joseph Woelfel
Chairman
Department of Communication Lecture Series

Have you previously filled out a questionnaire on your reactions to the Family Communication Lecture?

_____No

_____Yes

Have you heard about the Family Communication Lecture from any source other than the previous questionnaire?

_____No

_____Yes If Yes, briefly describe how you learned about the lecture:

_____

_____

Have you talked with anyone about the Family Communication Lecture since you first heard about it?

_____No

_____Yes If Yes, roughly how many conversations? _____

If Yes, briefly describe the conversations: _____

_____

_____

At this time, do you know of any reason why it will not be possible for you to attend the Family Communication Lecture?

_____No

_____Yes If Yes, briefly describe the reason: _____

_____

_____

Over the past few years, how often have you attended public lectures on any subject. Please do not count regular classroom lectures.

_____Less than one per year

_____One or two per year

_____More than two per year

PLEASE READ THE FOLLOWING MESSAGE, AND THEN ANSWER THE QUESTION AT THE BOTTOM OF THE PAGE.

Both reason and research indicate that family stability is important to the happiness and success of every person. Family stability in turn depends upon the communication relationships which exist among the family members.

The Family Communication Lecture will provide you with a working knowledge of the communication principles involved in establishing and maintaining healthy communication relationships. This should be of value to anyone who is interested in a useful and enjoyable learning experience.

Professor Cushman's enthusiasm and competence have earned him outstanding teacher awards from three universities, and have led to several invitations to speak before family counselling groups. Over the years, many people have benefited from his broad experience in the problems of interpersonal communication.

Those of you who know Professor Cushman know that his lectures are anything but boring! We are sure that you will find him entertaining, stimulating and challenging. His lecture will stress the practical side of interpersonal communication. You will find much that is useful in what he has to say.

Professor Cushman has developed a new approach to interpersonal communication which has important implications for family communication. Scientific findings based on this approach can help you develop effective and enjoyable relationships with others in your family.

Scientific research has rapidly advanced our knowledge of family communication, as researchers have accumulated a body of practical information about how to improve interpersonal relationships in the family.

Studies have found that training can improve your awareness of your own and others' communication behavior. Even a brief lecture can help you to understand: 1) your own "style", and how this affects and is affected by other family members; 2) how relationships develop, and how the relationship depends upon the people in it; and 3) how conflicts arise at the relationship level, and what can be done to cope with them.

In sum, there will be very few opportunities in your college career to learn a set of principles which are relevant every day of your life. If you are interested in the principles involved in establishing and maintaining healthy communication relationships, and if you want to have a useful and enjoyable learning experience, then be sure to attend Professor Cushman's lecture.

.....

What do <u>you</u> feel is the most important point made in the above message? _____

_____

_____

Professor Cushman of the MSU Department of Communication intends to give a public lecture on the topic "Family Communication". Will you attend that lecture?

Definitely Not			Even Chance Either Way			Definitely Yes
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

Attending a lecture by Professor Cushman of the MSU Department of Communication on the topic "Family Communication" would be...

	Very	Quite	Slightly	Neutral	Slightly	Quite	Very	
punishing	: 1	: 2	: 3	: 4	: 5	: 6	: 7	: rewarding

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

good	: 1	: 2	: 3	: 4	: 5	: 6	: 7	: bad

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

unpleasant	: 1	: 2	: 3	: 4	: 5	: 6	: 7	: pleasant

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

The next question concerns whether any moral obligations which you personally feel toward yourself or others will affect your decision whether to attend a lecture on family communication.

Do you think that attending the lecture is something you ought to do or something you should not do?

Obligation Not To Attend			No Obligation Either Way			Strong Obligation To Attend
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

How certain are you of this judgement?

Very Certain						Uncertain
: 1	: 2	: 3	: 4	: 5	: 6	: 7 :

The next few questions ask how other people would react if you discussed with them whether you should attend a public lecture on the topic of Family Communication.

Regardless of your own personal views, would each of the following kinds of people feel you had a moral obligation to attend such a lecture? On the average, would each group think that this is something you ought to do, or something you should not do?

	Obligation Not To Attend			No Obligation Either Way			Strong Obligation To Attend
a) YOUR BEST FRIENDS WOULD SAY	1	2	3	4	5	6	7
b) YOUR BEST PROFESSORS WOULD SAY	1	2	3	4	5	6	7
c) YOUR FAMILY WOULD SAY	1	2	3	4	5	6	7

Below is a list of five factors which people often take into account in making decisions. Please rank these factors according to their importance to you in deciding whether to attend a lecture on Family Communication. Please rank the five factors in order of importance--"1" for most important, "2" for next most important, and so forth.

_____ What would be pleasant for me

_____ What would be rewarding for me

_____ What I feel I should do

_____ What my best friends would say I should do

_____ What my best professors would say I should do

_____ What my family would say I should do

How certain are you of these rankings?

Very Certain						Uncertain
1	2	3	4	5	6	7

Now consider each of the five factors by itself. How important to you will each of these factors be in deciding whether to attend a lecture on Family Communication?

a) What would be pleasant for me:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

b) What would be rewarding for me:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

c) What I feel I should do:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

d) What my best friends would say I should do:

Very Important : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Very Unimportant

How certain are you of this judgement?

Very Certain : 1 : 2 : 3 : 4 : 5 : 6 : 7 : Uncertain

e) What my best professors would say I should do:

Very Important	1	2	3	4	5	6	7	Very Unimportant

How certain are you of this judgement?

Very Certain	1	2	3	4	5	6	7	Uncertain

f) What my family would say I should do:

Very Important	1	2	3	4	5	6	7	Very Unimportant

How certain are you of this judgement?

Very Certain	1	2	3	4	5	6	7	Uncertain

The next few questions concern how much you feel you know about certain things. In answering, consider any information you have gain ed from any source, including personal experience, from talking to other people, or from media like books, newspapers or television. How much do you feel you know about each of the following?

	Know Nothing At All		Do Not Know Very Much		Know Fairly Well		Know Extremely Well
a) FAMILY COMMUNICATION	1	2	3	4	5	6	7
b) PUBLIC LECTURES	1	2	3	4	5	6	7
c) MSU DEPARTMENT OF COMMUNICATION	1	2	3	4	5	6	7
d) PROFESSOR CUSHMAN	1	2	3	4	5	6	7

(Exposure)

Have you ever attended a lecture or seminar about the specific topic of family connumication?

_____ Yes _____ No

Have you ever taken a course in which family communication was a major topic of discussion?

_____ Yes _____ No

Family Communication is...

Neutral

Punishing	:	:	:	:	:	:	:	Rewarding
	1	2	3	4	5	6	7	
Good	:	:	:	:	:	:	:	Bad
	1	2	3	4	5	6	7	
Unpleasant	:	:	:	:	:	:	:	Pleasant
	1	2	3	4	5	6	7	

The MSU Department of Communication is...

Neutral

Punishing	:	:	:	:	:	:	:	Rewarding
	1	2	3	4	5	6	7	
Good	:	:	:	:	:	:	:	Bad
	1	2	3	4	5	6	7	
Unpleasant	:	:	:	:	:	:	:	Pleasant
	1	2	3	4	5	6	7	

Public Lectures are...

Neutral

Punishing	:	:	:	:	:	:	:	Rewarding
	1	2	3	4	5	6	7	
Good	:	:	:	:	:	:	:	Bad
	1	2	3	4	5	6	7	
Unpleasant	:	:	:	:	:	:	:	Pleasant
	1	2	3	4	5	6	7	

Professor Cushman is...

Neutral

Punishing	:	:	:	:	:	:	:	Rewarding
	1	2	3	4	5	6	7	
Good	:	:	:	:	:	:	:	Bad
	1	2	3	4	5	6	7	
Pleasant	:	:	:	:	:	:	:	Unpleasant
	1	2	3	4	5	6	7	

(Demographics & Miscellaneous)

Please answer the following questions about yourself:

1) Is Communication your Major field? _____ Yes

_____ No

2) What is your class standing? _____ Freshman _____ Senior

_____ Sophomore _____ Graduate Student

_____ Junior _____ Special

3) What is your sex? _____ Male

_____ Female

4) What is your marital status? _____ Single, never married

_____ Single, formerly married

_____ Engaged

_____ Married

5) Do you have any children? _____ Yes If yes, how many? _____

_____ No

6) How close do you feel to your family?

Average

Very Close : _____ : _____ : _____ : _____ : _____ : _____ : _____ : Very Distant
1 2 3 4 5 6 7

7) What is your date of birth? _____ _____ _____
Month Day Year

The following are some reasons that professors and others have given for not instructing people in techniques of family communication. How much merit do you find in each of these statements as objections to classes about family communication techniques?

	The statement has						
	No Merit			Some Merit		Very Much Merit	
After learning family communication techniques, people become overly self-conscious about their communication with their families.	1	2	3	4	5	6	7
After learning family communication techniques, family members often disturb patterns of communication inside the family, creating new communication problems.	1	2	3	4	5	6	7
Other family members often resent attempts by college students to change family communication patterns according to what they learn at school.	1	2	3	4	5	6	7
People who have learned family communication techniques develop rigid and unrealistic ideas about the ways their families should communicate.	1	2	3	4	5	6	7
Families are so different that family communication techniques which can be taught are often irrelevant to most family situations.	1	2	3	4	5	6	7

PLEASE READ THE FOLLOWING MESSAGE, AND THEN ANSWER THE QUESTION AT THE BOTTOM OF THE PAGE.

Both reason and research indicate that family stability is an important responsibility of every person. Family stability in turn depends upon the communication relationships which exist among the family members.

The Family Communication Lecture will provide you with a working knowledge of the communication principles involved in establishing and maintaining healthy communication relationships. This should be of value to anyone who has a sense of responsibility for the well-being of his or her family.

Professor Cushman's enthusiasm and competence have earned him outstanding teacher awards from three universities, and have led to several invitations to speak before family counseling groups. Over the years, many people have benefited from his broad experience in the problems of interpersonal communication.

Professor Cushman feels that it is important to disseminate knowledge about family communication, because he believes that the family is an institution which is basic, both to society and to the human needs of each of us. His lecture will stress the ways in which good communication in the family is everyone's responsibility.

Professor Cushman has developed a new approach to interpersonal communication which has important implications for family communication. Scientific findings based on this approach can help you to better perform the duties associated with your role in the family.

Scientific research has rapidly advanced our knowledge of family communication, as researchers have realized the importance of learning more about interpersonal relationships in the family.

Studies have found that training can improve your awareness of your own and other's communication behavior. Even a brief lecture can help you to understand: 1) your own "style", and how this affects and is affected by other family members; 2) how relationships develop, and how the relationship depends upon the people in it; and 3) how conflicts arise at the relationship level, and what can be done to cope with them.

In sum, there will be very few opportunities in your college career to learn a set of principles which are relevant every day of your life. If you are interested in the principles involved in establishing and maintaining healthy communication relationships, and if you have a sense of responsibility for the well-being of your family, then be sure to attend Professor Cushman's lecture.

. . . . . .

PLEASE READ THE FOLLOWING MESSAGE, AND THEN ANSWER THE QUESTION AT THE BOTTOM OF THE PAGE.

Both reason and research indicate that family stability is an important desire of every family. Family stability in turn depends upon the communication relationships which exist among the family members.

The Family Communication Lecture will provide you with a working knowledge of the communication principles involved in establishing and maintaining healthy communication relationships. This should be of value to anyone who wants to provide the kind of intelligent interpersonal leadership which people expect of a student trained in communication.

Professor Cushman's enthusiasm and competence have earned him outstanding teacher awards from three universities, and have led to several invitations to speak before family counseling groups. Over the years, many people have benefited from his broad experience in the problems of interpersonal communication.

Professor Cushman has found that most families today are eager to learn more about communication. Lecturers and courses on interpersonal communication are always well-attended. Several books on the subject have made the best-seller lists. Training centers have grown up around the country. Professor Cushman's lecture will stress the kinds of information that have been found to be of interest to most families.

Professor Cushman has developed a new approach to interpersonal communication which has important implications for family communication. Scientific findings based on ths approach can help you contribute to the stability your family wants.

Scientific research has rapidly advanced our knowledge of family communication, as researchers have responded to the increased public demand for information about interpersonal relationships in the family.

Studies have found that training can improve your awareness of your own and others' communication behavior. Even a brief lecture can help you to understand: 1) your own "style", and how this affects and is affected by other family members; 2) how relationships develop, and how the relationship depends upon the people in it; and 3) how conflicts arise at the relationship level, and what can be done to cope with them.

In sum, there will be very few opportunities in your college career to learn a set of principles which are relevant every day of your life. If you are interested in the principles involved in establishing and maintaining healthy communication relationships, and if you want to provide the kind of intelligent interpersonal leadership which people expect of a student trained in communication, then be sure to attend Professor Cushman's lecture.

. . . . . .

August 12, 1974

On the next page of this questionnaire is a message which has been used in past communication research in other communication classes. The message was used to persuade students to attend a lecture on family communications given by Professor Donald Cushman. What we seek from you is an estimate of how well this message was designed.

The message was designed to give students information about the lecture which would lead them to go for a variety of reasons. Among other reasons, we thought that students might attend the lecture because they thought

_____ it would be pleasant to attend

_____ it would be rewarding to attend.

_____ they ought to (or had a duty to) attend.

_____ their families would expect them to attend.

_____ their friends would expect them to attend.

_____ their best professors would expect them to attend.

As you are reading the message, think about these reasons for attending the lecture. What we want to know is how much emphasis the message you are reading puts on each of these reasons. Note - these reasons themselves may not be stated in the message, but information in the message may support or be relevant to these reasons. Or there may be no information relevant to some of the reasons.

Read the message through carefully, once only. Do not turn back to look at the reasons listed above, and do not try to count the pieces of information supporting each point. What we want is your general impression of the relative emphasis placed on each reason in this message.

Please answer all the questions below - if you skip any one question, the whole questionnaire is invalid.

PLEASE READ THE FOLLOWING MESSAGE, AND THEN ANSWER THE QUESTION AT THE BOTTOM OF THE PAGE.

Both reason and research indicate that family stability is important to the happiness and success of every person. Family stability in turn depends upon the communication relationships which exist among the family members.

The Family Communication Lecture will provide you with a working knowledge of the communication principles involved in establishing and maintaining healthy communication relationships. This should be of value to anyone who is interested in a useful and enjoyable learning experience.

Professor Cushman's enthusiasm and competence have earned him outstanding teacher awards from three universities, and have led to several invitations to speak before family counseling groups. Over the years, many people have benefited from his broad experience in the problems of interpersonal communication.

Those of you who know Professor Cushman know that his lectures are anything but boring! We are sure that you will find him entertaining, stimulating and challenging. His lecture will stress the practical side of interpersonal communication. You will find much that is useful in what he has to say.

Professor Cushman has developed a new approach to interpersonal communication which has important implications for family communication. Scientific findings based on this approach can help you develop effective and enjoyable relationships with others in your family.

Scientific research has rapidly advanced our knowledge of family communication, as researchers have accumulated a body of practical information about how to improve interpersonal relationships in the family.

Studies have found that training can improve your awareness of your own and others' communication behavior. Even a brief lecture can help you to understand: 1) your own "style", and how this affects and is affected by other family members; 2) how relationships develop, and how the relationship depends upon the people in it; and 3) how conflicts arise at the relationship level, and what can be done to cope with them.

In sum, there will be very few opportunities in your college career to learn a set of principles which are relevant every day of your life. If you are interested in the principles involved in establishing and maintaining healthy communication relationships, and if you want to have a useful and enjoyable learning experience, then be sure to attend Professor Cushman's lecture.

. . . . . .

PLEASE DO NOT TURN BACK TO THE MESSAGE WHILE ANSWERING THESE QUESTIONS.

Listed below are the six reasons, mentioned on the first page of instructions, for attending the family communication lecture. In the blanks provided, please rank-order the reasons as suggested by the message - put a '1' beside the reason most strongly suggested or supported, a '2' beside the next most strongly suggested reason, etc.

Remember - we want to see how much information in the message is relevant to each reason, not how important or persuasive you think each reason is. But don't forget that the message may suggest a reason to you without actually stating that reason.

Reasons:	Rank:
1. Attending the lecture would be pleasant.	_____
2. Attending the lecture would be rewarding.	_____
3. I ought to (have a duty to) attend the lecture.	_____
4. My friends would expect me to attend.	_____
5. My family would expect me to attend.	_____
6. My best professors would expect me to attend.	_____

7. Have you ever attended a lecture on family communication?

_____ Yes _____ No

8. Have you ever taken a course on family communication?

_____ Yes _____ No

9. Have you ever taken a course in which family communication was formally discussed in more than three lectures or class meetings?

_____ Yes _____ No

10. Have you ever seen the message you just read, or a similar message about the same lecture, before today?

_____ Yes _____ No

Now we would like your opinions about reasons for attending a family communication lecture. Please rank-order the following reasons, according to how important you think they are.

Reasons: Rank:

11. Attending the lecture would be pleasant. _____
12. Attending the lecture would be rewarding. _____
13. I ought to (have a duty to) attend the lecture. _____
14. My friends would expect me to attend. _____
15. My family would expect me to attend. _____
16. My best professors would expect me to attend. _____

17. How important do you think it is to learn about effective family communication in college?

_____ Very important
_____ Important
_____ Neither important nor unimportant
_____ Unimportant
_____ Very unimportant.

Finally, we would like you to estimate the amount of information in the message which suggested, supported, or was relevant to the six reasons listed above. Please try to compare the different reasons when you answer - if very much information was relevant to one reason, the message couldn't contain very much information suggesting other reasons.

How much information suggested each of the following reasons?

18. Attending the lecture would be pleasant.

_____ All the information in the message
_____ A very large amount of information
_____ A fairly large amount of information
_____ A moderate amount of information
_____ A fairly small amount of information
_____ A very small amount of information
_____ None of the informa ion

19. Attending the lecture would be rewarding.

_____ All the information in the message
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

20. I ought to (or have a duty to) attend.

_____ All the information in the message
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

21. My friends would expect me to attend.

_____ All the information in the message
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

22. My family would expect me to attend.

_____ All the information in the message
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

23. My best professors would expect me to attend.

_____ All the information in the message
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

24. How much of the information in the message was irrelevant to the six reasons listed above?

_____ All the information
_____ A very large amount of it
_____ A fairly large amount
_____ A moderate amount
_____ A fairly small amount
_____ A very small amount
_____ None of the information

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