INCENTIVE AS A MITIGATOR OF THE EXTENT TO WHICH ONE'S ATTITUDES ARE INFERRED FROM ONE'S BEHAVIOR: STUDIES IN THE THEORY OF SELF-PERCEPTION

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ABSTRACT

INCENTIVE AS A MITIGATOR OF THE EXTENT TO WHICH ONE'S ATTITUDES ARE INFERRED FROM ONE'S BEHAVIOR: STUDIES IN THE THEORY OF SELF-PERCEPTION

By

R. Samuel Mehrley

Two separate studies investigated the self-perception hypothesis that an individual's attitude statements may be predicted and controlled by manipulating his overt behavior and the stimulus conditions under which it occurs. In Experiment I Ss administered positive or negative feedback to an unknown speaker under conditions of high or low incentive. The primary dependent variable was ratings of speaking effectiveness. Experiment II was a replication of Experiment I with the exception that speech quality (high and low) was manipulated. Experiment I provided strong support for the hypothesis that an individual infers his own attitudes from his own behavior while Experiment II provided only a modicum of support. Neither experiment supported the hypothesis that incentive mitigates the extent to which one's attitudes are inferred from one's

behavior. In fact, in Experiment II reinforcement effects occurred in belief-consistent conditions while self-perception effects occurred in belief-inconsistent conditions.

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Finally, I express my appreciation to my earliest and most influential teachers, my parents, Robert Mehrley and Freda Mehrley, by dedicating this paper to them.

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CHAPTER I

INTRODUCTION

The Problem

Arguing from a radical Skinnerian position, Bem (1965, 1966, 1967, 1968, 1970a, 1970b) has proposed that individuals come to "know" their own attitudes and other internal states partially by inferring them from observations of their own overt behavior and the circumstances in which it occurs. Thus, the individual is functionally in the same position as an outside observer of his behavior, an observer who, necessarily, must rely upon those same external cues to infer the individual's inner states. For example, an observer judges another's attitude on the basis of his behavior and the stimulus conditions under which it occurs. Similarly, an individual frequently judges his own attitude from his own behavior, taking account of the conditions under which it occurs. In short, Bem's interpersonal theory of self-perception suggests that the process of arriving at inferences about the self are identical with those used in drawing inferences about others. It is this assertion, that self-perception is limited to the same set of public cues

used in person perception, which constitutes Bem's distinct theoretical contribution.

Despite the plausibility and potential importance of Bem's notion, there is a paucity of direct empirical support for the basic theoretical premises. The studies reported below attempt to extend and refine the current level of understanding regarding Bem's theory of self-perception by examining the efficacy of applying it to communication behavior. In particular, the studies deal with the general hypothesis that an individual's belief and attitude statements may be predicted and controlled by manipulating his overt behavior and the stimulus conditions under which it occurs. A review of relevant research clarifies the relationship between these variables and provides a basis for the hypotheses which were investigated.

Relevant Research

This section reviews research which is relevant to the basic theoretical premises of Bem's self-perception theory. In addition, Bem's analysis of dissonance theory experiments is presented.

Empirical Support for the Basic Theoretical Premises

Bem's basic premise is that "In identifying his own internal states, an individual partially relies on the same external cues that others use when they infer his

internal states" (1970, p. 50). Bem identifies three important sources of such cues: (1) those external cues residing in the social or physical situation in which the individual is placed; (2) those external cues residing in the individual's own behavior; and (3) those external cues residing in the circumstances that appear to be responsible for the individual's behavior.

While not conducted as tests of self-perception theory, there are several studies that lend support to the notion that individuals use cues residing in the social or physical situation in which they are placed to infer their own internal states. Schachter and Singer (1962) investigated the combined effects of internal and external cues on the subject's perceptions of his own emotionality. Subjects were injected with a drug which provokes the internal physiological reactions that accompany strong emotions. The subjects, however, were not informed of the true effects of the injection. They were placed in a waiting room with a confederate who pretended to be another subject. In one condition the confederate behaved in an angry manner while in a second condition he behaved in a happy manner. A control group received a placebo instead of the drug. The results revealed that subjects who had been injected with the placebo perceived themselves to be relatively unemotional after the session with the confederate regardless of how the confederate had behaved. Subjects who had been injected with the drug felt quite

differently. Those who had been with the angry confederate described their mood as one of anger while those who had been with the happy confederate felt slightly "eupheric." Finally, drugged subjects did not describe themselves as emotional if they knew ahead of time what reactions to expect from the drug.

Valins (1966) conducted a study in which subjects were shown a series of slide pictures of seminude females and at the same time heard what they believed to be the amplified sounds of their hearts beating. Variations in rate changes of the sounds were coordinated with presentation of the slides. Thus, in one condition, each subject heard his heart rate increase soon after the presentation of each of the slides (and this occurred on both of two successive exposures to the series of slides), but he noted no such increase after five other pictures. In a second condition, subjects heard decreases in rate rather than increases. The effect of the covariation procedure was that subjects rated as more attractive the pictures with which the changes had been associated and more frequently chose them as remuneration for their participation in the experiment.

Schachter and Gross (1968) based a study on the assumption that overweight individuals may eat too much or too often because they do not rely upon internal stomach cues to tell themselves that they are hungry, but instead rely primarily upon external circumstances. The procedures

consisted of requiring both obese and normal subjects to sit quietly in a room for 30 minutes with nothing to do. The room contained a clock which was rigged to run fast for some subjects and slow for others. The experimenter left the room when the clock read 5:05 P.M. When he returned a half hour later, the clock read 6:05 for some subjects but only 5:20 for others. Each subject was then allowed to have a snack. The results revealed that obese subjects ate more when the clock read 6:05 than when it only read 5:20. Conversely, normal-weight subjects ate less when the clock read 6:05; a few of them commented that they did not want to spoil their appetites for dinner.

This study suggests that obese individuals rely less upon internal cues than normal individuals. This suggestion leads to the conclusion that obese individuals should actually be better able to tolerate food deprivation than normal individuals if the external cues are removed. Goldman, Jaffa, and Schachter (1968) investigated this possibility. They discovered that obese Jews were more likely to fast on Yom Kippur, the Jewish Day of Atonement, than were normal-weight Jews. Furthermore, the more time obese Jews spent in the synagogue (away from external food cues), the easier it was for them to fast. Conversely, the normal-weight Jews carried their (internal) hunger cues into the synagogue with them. For them, being in the synagogue had little to do with the difficulty of the fast.

Bem asserts that to an observer the most important clues to an individual's inner states are found in his behavior. Accordingly, Bem's theory of self-perception predicts that an individual also infers his own internal states by observing his own overt behavior. In an effort to provide direct empirical support for this prediction, Bandler, Madaras, and Bem (1968) asked subjects to press a button in order to escape electric shock. The subjects were unaware that all the shocks were of equal intensity. Prior to each shock, the experimenter told the subject whether he preferred the subject to escape it or to endure it but that the final choice was his. In this way, the experimenter was able to control which shocks the subject terminated and which he endured, even though he saw himself as having a choice in the matter. After each shock, the subject rated the degree of discomfort from it. The results revealed that subjects rated the shocks as significantly more uncomfortable when they escaped them than they did when they endured them. This was true even though the endured shocks were necessarily longer than the escaped shocks.

Kiesler, Nisbett, and Zanna (1969) led subjects to believe that they were going to deliver arguments against air pollution to passers-by in the street. At the same time, confederates were asked to argue for promoting auto safety. The confederate stated that he was willing to argue in favor of auto safety because (a) he believed

strongly in it (belief-relevant condition), or (b) the experiment was scientifically valuable (belief-irrelevant condition). Belief-relevant subjects were found to be more opposed to air pollution than either belief-irrelevant subjects or control subjects who were not committed to the behavior. The results support Bem's hypothesis that people infer their beliefs from their behavior and suggest that such a process occurs only when there are cues implying that behavior is relevant to belief.

While not conducted as tests of self-perception theory, there are at least two other studies that lend themselves to a Bemian interpretation. Because of their relevance to the studies reported below, they merit a detailed examination.

Amato and Ostermeier (1967) investigated the operation of feedback in a public speaking situation. The audience consisted of 22 students enrolled in a fundamentals public speaking course. Three other students enrolled in a fundamentals public speaking course, unknown to the audience, served as subject-speakers. Each audience member was given three index cards to use in presenting feedback during the oral presentation of each speaker. The audience was instructed to assume a predetermined response-role for each speaker. In one condition the audience was instructed to respond favorably to the speaker by exhibiting a WHITE card. In the other conditions they

were instructed to indicate an unfavorable or neutral response by exhibiting either a RED or GREEN card respectively. These audience response-role procedures were followed for each of the three speakers during the first speaking session. The speakers were given the same instructions concerning the meaning of the colored cards. At the conclusion of each speech, the audience completed a questionnaire in which they were asked to evaluate the speaker on six speaking characteristics. A second set of instructions was given the audience prior to the second round of speeches. In this set only two response-roles were permitted, either unfavorable or neutral but not favorable. Again the questionnaires were administered following each speech. Results were reported to be supportive of the researchers' hypothesis: that unfavorable audience feedback produces a deterioration in speaker delivery; specifically, nervousness, bodily movement, eye contact, and fluency.

Combs and Miller (1968) argued for a more parsimonious explanation of Amato and Ostermeier's findings; namely, that the audience members rated the speakers consistent with the response-role they were asked to perform. They hypothesized that subjects administering positive feedback to a speaker will rate him more favorably than subjects administering neutral feedback, and that subjects administering negative feedback to a speaker will rate him more unfavorably than subjects administering neutral

feedback. Eighty-two students enrolled in classes of public speaking courses were randomly assigned to one of three response-role conditions; Favorable, Neutral, or Unfavorable. In each class each member of the audience was given a set of cards to indicate his response-role. During the delivery of a speech given by a confederate, the audience was asked to rate the speakers. The results indicated that Amato and Ostermeier's findings lend themselves to a response-role, rather than a speaking performance interpretation. Subjects administering positive feedback rated the speaker significantly higher than those in the neutral condition. Subjects administering negative feedback rated the speaker significantly lower than those in the neutral condition.

It is apparent that the findings of these two experiments lend themselves to a third interpretation, one in line with self-perception theory. Audience members may have inferred their attitude toward the unknown speaker by observing their own overt behavior. Taken together, the studies cited above support the Bemian notion that attitudes can follow behavior.

Finally, Bem asserts that individuals not only use the behavior of another individual as a guide for inferring his beliefs and attitudes, but also take into account the circumstances that appear to be responsible for his behavior. Accordingly, Bem's theory of self-perception also predicts that an individual not only uses his own

behavior as a guide for inferring his beliefs and attitudes, he also takes into account the circumstances that appear to be responsible for his behavior. Bem traces his analysis to Skinner's distinction between a mand and a tact:

> A descriptive statement, a verbal response that is under the discriminative control of some portion of the environment, is classified as a "tact" (Skinner, 1957). A speaker is trained to describe or "tact" his environment for the benefit of his listeners who provide generalized social reinforcement in return. . . . Verbal responses that are under the control of specific reinforcing contingencies are called "mands." A speaker who emits a mand is asking for, requesting, or "manding" a particular reinforcer. . . . Mands are often disguised as tacts, as in "I believe you have the sports page" or as in the case of the television announcer who praises the product he is selling; his verbal behavior is a mand for the salary he receives and may not at all be under the actual discriminative control that features the product he appears to be tacting. . . . It is clear, then, that in an attempt to infer a speaker's "true" beliefs and attitudes, the listener must often discriminate the mand-tact characteristics of the communication (1965, pp. 200-201).

Thus, control over an individual's beliefs and attitudes exerted by his overt behavior is mitigated to the extent that cues are present implying that the behavior is deceitful or, more generally, is being emitted for immediate specific reinforcement.

Bem has used this latter premise as a primary basis for his analysis of experiments conducted as tests of cognitive dissonance theory in which subjects encode counter-attitudinal messages. This premise, that reinforcement (i.e., compensation for performing a behavior) mediates the subsequent amount of attitude change, is the focus of the next section of this paper.

An Alternative Explanation of Dissonance Phenomena

Generally, investigators concerned with counter-attitudinal advocacy have concentrated on the effects of varying amounts of incentives used to induce a subject to encode a belief-discrepant communication. The foundation for such research can be found in Festinger's (1957) original formulation of the relationship between the amount of incentives and the magnitude of dissonance.

> The magnitude of the reward or punishment, that is, the attractiveness and desirability of the offered reward or the unpleasantness and the undesirability of the threatened punishment is an important determinant of the magnitude of dissonance which exists once compliance is exhibited. Too great a reward or punishment will result in only little dissonance (p. 91).

Several studies have provided empirical support for Festinger's formulation (e.g., Festinger and Carlsmith, 1959; Cohen, 1962). These studies, as well as others, suggest that the persuasive efficacy of counter-attitudinal advocacy rests upon establishment of the minimal justifying conditions to induce belief-discrepant behavior. Not surprisingly, however, the dissonance position has come under attack. For certain aspects of reinforcement learning theories imply that belief-discrepant arguments are more likely to be accepted if the reward for encoding them is substantial. Moreover, studies by Scott (1957, 1959); Bostrom, Vlandis and Rosenbaum (1961); Janis and Gilmore (1965); and Elms and Janis (1965) indicate that after counter-attitudinal advocacy, more self-persuasion occurs

under conditions of high, rather than low justification. These researchers hold that if self-persuasion is the desired end, persons should be given positive incentives for encoding counter-attitudinal messages.

Bem (1965, 1967a, 1967b, 1968, 1970a, 1970b) has joined the counter-attitudinal advocacy controversy. He assumes the dissonance results to be reliable, but offers a radically different mechanism for the effects. Bem proposes that the basic findings of both the "forced compliance" type of dissonance experiment (e.g., Festinger and Carlsmith, 1959) and the "free choice" type (e.g., Brehm, 1956) can be explained without recourse to the motivational interpretation preferred by dissonance theorists. Bem's basic argument can be illustrated with the paradigmatic case of the forced-compliance experiment in which individuals write counter-attitudinal essays for varying amounts of compensation. The "classical" finding of such studies, as noted earlier, is that there is a negative relationship between justification and self-persuasion, i.e., the less the justification, the greater the self-persuasion.

The self-perception theory approaches these results by considering the viewpoint of an outside observer who sees an individual writing an essay for little or no compensation; he can rule out financial incentive as a motivating factor and infer something about the individual's attitudes. He can use an implicit self-selection rule and

ask: "What must this man's attitude be if he is willing to behave in this fashion in this situation?" Accordingly, he can conclude that the individual holds an attitude consistent with the view that is expressed in the essay. On the other hand, if an observer sees an individual writing an essay for a large compensation, he can infer little or nothing about the actual attitude of that individual because such an incentive appears sufficient to evoke the behavior regardless of the individual's private views. The observer's best guess, then, is to suppose that the individual's attitude is similar to that which would be expressed by anybody who was selected at random and asked for his opinion--the attitude of a control subject, in other words.

Self-perception theory asserts that subjects in dissonance experiments are themselves behaving just like these hypothetical observers. They survey their own behavior of writing the essay and then ask themselves: "What must my attitude be if I am willing to behave in this fashion in this situation?" Accordingly, they produce the same pattern of results as the outside observers: low-compensation subjects infer that they must agree with the arguments in their essay, whereas high-compensation subjects discard their behavior as a relevant guide to their "actual" attitudes and express the same attitudes as the control subjects. The same kind of reasoning predicts the differential effects of other variables in

cognitive dissonance experiments (e.g., justification and freedom of choice manipulations).

This analysis has been tested several times with an experimental methodology known as "interpersonal simulation" (Bem, 1965, 1967a, 1967b, 1968). In these studies, an observer-subject is actually given a description of one of the conditions of a dissonance experiment and asked to estimate the attitude of the subject whose behavior is either described or actually overheard. As the self-perception theory predicts, the attitude estimates of observer-subjects in such simulations do, in fact, reproduce the original dissonance findings. Bem (1965), for example, conducted an interpersonal replication of Cohen's (1962) study. Each subject in Bem's simulation simply received a description of the situation faced by a single subject in the original Cohen study: He was told that in the spring of 1959, there was a "riot" at Yale University in which the New Haven police incurred the wrath of the undergraduates." He was then told that an undergraduate had written an essay entitled "Why the New Haven Police Actions Were Justified," an essay which was to be clearly in favor of the police side of the riots. According to the description, "the decision to write such an essay or not was entirely up to the student, and he was told that he would be paid the sum of $.50 (1.00) if he would be willing to do so. The student who was asked agreed to do so, and wrote such an essay" (p. 203). Bem's observers

were asked to estimate the attitude toward the police of the subject described to them. These estimates in the control, $.50, and $1.00 conditions were strikingly similar to the data actually obtained by Cohen.

In his 1967 paper, Bem reports a similar interpersonal replication of the Festinger and Carlsmith (1959) study. Again the results were quite similar to those reported by Festinger and Carlsmith. Similar results are also reported by Jones (1966) in a study in which subjects' attitudes and observers' judgments were compared directly in the same experiment.

The theory of self-perception receives only indirect support from Bem's interpersonal simulations. To obtain more direct support, Bem (1965) conducted an experiment in which "truth" and "lie" signals were "raised from birth" in the laboratory so that their meanings would be unambiguous. Bem's assumption was that the small and large amounts of money in the dissonance experiments act respectively as "truth" and "lie" signals to the subjects, informing them whether or not to believe their own essays. Bem presented the subjects with a looseleaf notebook containing cartoons which the subject had previously rated as neutral on a scale ranging from very unfunny to very funny. After subjects had been seated in an acoustically tiled recording room, they received the following instructions over an intercom:

> . . . We are going to be examining an individual's ability to judge whether the speaker on the tape is telling the truth or not. To do this, some of the things you will say on the tape will be true statements; others will be untrue. . . . After I ask you a question, I will start the tape recorder and you should answer the question into the microphone in front of you. Whenever I turn on the tape recorder, one of the two colored light bulbs in the ceiling fixtures will also go on automatically. If the amber light goes on . . . , you should make up an untrue answer and speak it into the microphone as convincingly and naturally as possible. . . . The lighting circuitry is set to select the two colored lights automatically and in random sequence (pp. 212-213).

This first part of the procedure was to "raise in the laboratory" external stimuli which had, in the past been associated with truth-telling or lie-telling. The next part of the procedure was designed to have the subject make factual statements in the presence of these external stimuli. Subjects again looked at some of the same cartoons and announced their personal decision that it was funny. The truth (or lie) light was turned on "Just so you will know when I turn the tape recorder on and off. . . . " Once the tape recorder (and the truth or lie light) was turned on, the subject then stated his previous decision aloud into the tape recorder.

Subjects were then asked to re-rate the cartoons. Seven of the eight subjects were persuaded to a greater extent by comments made in the presence of the truth light than by comments made in the presence of the lie light. Bem interprets these findings to mean that the "truth" light acted just like the small sums of money in the dissonance experiments, signaling to the individual that

his behavior was an indication of his true attitude; the "lie" light acted like the large sums of money, telling the individual that his behavior was irrelevant to his true attitude.

It is obvious that Bem's alternative explanation of dissonance phenomena is a broad theoretical statement of some impact. However, if the past history of controversies like this one is any guide, it seems unlikely that a "crucial" experiment for discriminating between the two theories will ever be executed. At this juncture each theory appears capable of claiming some territory not claimed by the other, and one's choice of theory in areas of overlap is diminishing to a matter of loyalty or aesthetics. Thus, if one sets aside the question of observers and whether the statement is a "mand" or a "tact," it is difficult to distinguish between Bem's interpretation and a dissonance interpretation of the forced compliance phenomena.

Rationale and Hypotheses

The research evidence summarized above leads to the conclusion that an individual's belief and attitude statements may be predicted and controlled by manipulating his overt behavior and the stimulus conditions under which it occurs. Such reasoning suggests an experiment in which subjects are asked to provide either positive feedback (i.e., cues of approval) or negative feedback (i.e., cues

of disapproval) to an unknown speaker. Self-perception theory, as well as the findings of Amato and Ostermeier (1967) and Combs and Miller (1968), predicts that subjects in such a situation will infer their attitudes toward the quality of the speech by observing their own overt behavior. Thus, the following hypothesis was tested:

> H_1: Persons administering positive feedback to a speaker will rate his speech more favorably than persons administering negative feedback.

While not systematically investigated in non-counter-attitudinal research, self-perception theory also predicts that control over an individual's attitudes exerted by his overt behavior is mitigated to the extent that cues are present implying that the behavior is being emitted for immediate specific reinforcement. Thus, subjects who are compensated for administering either positive or negative feedback will discard their behavior as a relevant guide to their "actual" attitudes toward the quality of the speech and express the same attitudes as control subjects. Conversely, subjects who receive little or no compensation for administering the feedback have no justification for discarding their behavior as a relevant guide to their behavior. Based on such reasoning, the following hypothesis was tested:

> H_2: (a) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorably than persons administering positive feedback under conditions of high incentive; conversely,

(b) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

Of secondary interest in this investigation was the effect of administering positive or negative feedback under conditions of high or low incentive on subsequent credibility ratings of the speaker and attitude change toward the issue discussed in the speech. While not central, they were included in the belief that they might be affected by the relationships between behavior, its controlling circumstances, and subsequent inferences regarding attitudes. Based on the same reasoning that led to Hypotheses 1 and 2, the following relationships were also predicted:

H_3: Persons administering positive feedback to a speaker will rate him more credible than persons administering negative feedback.

H_4: (a) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; conversely,

(b) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

H_5: Persons administering positive feedback to a speaker will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering negative feedback.

H_6: (a) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; conversely,

(b) Persons administering negative feedback to a speaker under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

CHAPTER II

EXPERIMENT I*

Overview

On the basis of pretest results, an issue was chosen which was approximately normally distributed for Ss. Ss were randomly assigned to the experimental groups. They were asked to be "confederates" in a study allegedly designed to investigate the effects of audience feedback on communication behavior. In the experimental conditions, Ss administered positive or negative feedback to an unknown speaker under conditions of high or low incentive. Pretest Ss had judged the speech to be "average" and the speaker's credibility to be "moderate." Ss then completed posttest questionnaires. In addition to containing attitude items dealing with the experimental issue, the posttest questionnaire included items designed to measure reactions to the speech, the credibility of the speaker, incentive, and type of feedback administered. In order to determine the

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effect of the speech itself, in the absence of administering feedback or receiving an incentive for such behavior, a control condition was included in the design. Ss in the control condition completed pretest instruments, listened to the speech, and then completed posttest instruments.

Subjects

Experimental Ss were eighty-five students enrolled in an undergraduate communication course at Michigan State University. Control Ss were sixty-five students enrolled in a similar course at the same institution. A university-wide student strike depleted this original subject pool to forty-six experimental Ss and twenty control Ss. In addition, attrition between the pretest and posttest reduced the number of experimental Ss to forty-five for the analysis of the attitude change scores only.

Procedures

Pretest

Ss were administered a pretest questionnaire, ostensibly to solicit student opinion on possible issues to be used in a class project (see Appendix A). The instrument contained several issues believed to be salient and somewhat ego-involving for undergraduate students. The issue producing the most normal range of scores called for the use of early psychological testing to identify

children with criminal potential; thus, it was chosen as the experimental issue for the investigation.

Independent Variables

Two independent variables were manipulated in this investigation:

1. Incentive. This variable was dichotomized as High Incentive and Low Incentive. Ss in the High Incentive conditions were told that in return for their help as "confederates" in this investigation they would not have to take a previously scheduled examination, that they would receive credit for the examination without taking it. In addition, they were told that they would be paid $2.50 for their assistance. Ss in the Low Incentive conditions were simply asked to serve as "confederates." They were not offered compensation for their assistance.

2. Feedback. This variable was dichotomized as Positive Feedback and Negative Feedback. Ss were instructed to assume the role of an individual audience member and provide the speaker with nonverbal feedback according to an assigned response role. Ss in the Positive Feedback conditions were instructed to respond favorably to the speaker while Ss in the Negative Feedback conditions were instructed to respond unfavorably. Ss accomplished their feedback task by holding up 3" x 5" index cards every 30 seconds for about 10 seconds. Ss who administered positive feedback to the

speaker displayed green cards while Ss who administered negative feedback displayed red cards.

Inductions and Posttest

Approximately three weeks after the pretest had been administered and the experimental issue had been chosen, Ss were induced to perform the task of providing Positive or Negative Feedback to the speaker. E gave the following instructions to Ss in the Low Incentive conditions:

> Several students are conducting a little pilot study to investigate the effects of feedback on communication behavior. What we do is select a number of speakers and then ask audience members to respond to them in a specified manner. We tape record these speeches under various audience feedback conditions and then analyze them for things, such as nonfluencies, rate and verbal output.
>
> Professor _____ has consented to allow us to solicit your services as audience members, that is, as our confederates in this little study.
>
> In this particular speaking situation we are asking you to assume the role of an individual audience member and provide the speaker with nonverbal feedback according to an assigned role. You have been given a GREEN (RED) card which will assist you in performing your response role. The GREEN (RED) card represents a favorable (unfavorable) response. That is, each of you will provide the speaker with positive (negative) feedback during his speech. The speaker is aware that a GREEN (RED) card indicates that you approve (disapprove) of his communication behavior.
>
> The speech you will hear is six minutes long. Every 30 seconds you will hold up your card for about 10 seconds indicating that you approve (disapprove) of the speaker and his speech. In order to raise and lower your card at the appropriate time, just follow the lead of my assistant who will be standing behind the speaker attending to the tape recorder.
>
> Are there any questions concerning this procedure before the speaker arrives to present his speech?

Ss in the High Incentive conditions were given the following instructions:

> The Department of Communication at Michigan State University has received a large grant from the federal government to investigate the effects of feedback on communication behavior. What we do is select a number of speakers and then ask audience members to respond to them in a specified manner. We tape record these speeches under various audience feedback conditions and then analyze them for things, such as nonfluencies, rate, and verbal output.
>
> Professor _____ has volunteered your services as audience members, that is, as our confederates in this investigation. Your cooperation is essential to the success of our project. In fact, it is so important that Professor _____ has authorized me to tell you that in return for your help you will not have to take the examination that he has scheduled for Friday, that you will receive credit for the exam without taking it. In addition, the provisions of our grant enable us to pay you $2.50 for assisting us in this study.

Ss in the High Incentive conditions then received exactly the same instructions regarding the administration of the feedback as Ss in the Low Incentive conditions.

It is important to note that while the preceding instructions occurred simultaneously for all experimental groups, the experimental speech itself did not. This is because the experimental design required that the same live speaker present approximately the same manuscript speech to each experimental group. The speech was approximately six minutes long. Therefore, there was a time lag between the explanation of the experimental task and the actual presentation of the speech. There was no time lag in the Low Incentive:Positive Feedback condition. The time lag in the other three experimental groups ranged from 10

minutes in the Low Incentive:Negative Feedback condition to 30 minutes in the High Incentive:Negative Feedback condition.

The speaker, a male confederate of E, was introduced in each condition as an undergraduate volunteer. He was unknown to the audience prior to the completion of his speech.

The speech was prepared by E in collaboration with the speaker and delivered from a typed manuscript (see Appendix B). During its delivery, the speaker maintained eye contact with the audience, since he had participated in several pretest sessions prior to the presentation and was familiar with the content of the speech. Pretest Ss had judged the speech to be "average" and the speaker's credibility to be "moderate."

Immediately following the speech Ss completed posttest questionnaires. The instrument contained the same scales employed in the pretest to measure attitudes toward early psychological testing. In addition, it included items designed to measure reactions to the speech, the credibility of the speaker, and to assess the efficacy of the feedback and incentive manipulations (see Appendix C).

Immediately following the completion and collection of the posttest questionnaires, E explained the true nature of the study. In addition, in the High Incentive conditions E explained that it was true that in return for their help Ss would receive credit for the examination without taking

it. E also explained that it would be impossible to pay them the $2.50 as stated in the task instructions. In the Low Incentive conditions E explained that in return for their help Ss would also receive credit for the examination without taking it. At the end of the debriefing session the Ss were thanked for their help and dismissed.

E gave the following instructions to Ss in the control condition:

> The Department of Communication at Michigan State University is attempting to construct a measuring instrument that will validly rate several dimensions of a communication transaction. We would like for you to listen to a six minute speech and then rate it on some scales that we are developing. Are there any questions before I introduce the speaker?

After listening to the speech, control Ss completed a posttest questionnaire. The instrument was similar to the one administered to experimental Ss except that it did not contain items to measure incentive and type of feedback administered (see Appendix D).

Dependent Variables

Three dependent variables were measured in this investigation:

1. Speech Ratings. The posttest questionnaire contained speech ratings along four evaluative dimensions: Content and Analysis, Delivery, Language, and Overall Effectiveness. Each dimension was accompanied by a brief statement listing some of the criteria to be used in reacting to it. A seven-interval, semantic differential-type,

rating scale appeared below each dimension. The scales used Superior, Excellent, Good, Average, Fair, Poor, and Very Poor as anchors. Prior research on commonly used speech rating scales had indicated that the Content and Analysis, Delivery, and Language dimensions were somewhat independent (Becker, 1962). The Overall Effectiveness dimension was included to obtain general audience reactions to the total speech. Each dimension was scored on a one low (least favorable), seven high (most favorable) basis. Therefore, the higher the speech rating, the more favorable the reaction.

2. Credibility. The posttest questionnaire contained credibility ratings along three evaluative dimensions: Qualification, Safety, and Dynamism. For each dimension, four, seven-interval, semantic differential-type rating scales were used. Scales employed for Qualification were bounded by the adjectives skilled-unskilled, qualified-unqualified, experienced-inexperienced, and informed-uninformed. Those employed for Safety were kind-cruel, honest-dishonest, friendly-unfriendly, and just-unjust. Scales employed for Dynamism were bounded by the adjectives bold-timid, energetic-tired, active-passive, and aggressive-meek. These scales were selected on the basis of factor analytic studies (Berlo, Lemert, and Mertz, 1970). Since credibility ratings were obtained by summing across the scales, a score of 28 indicated

highest credibility on each dimension, a score of four lowest on each dimension.

3. Attitude Change. The posttest questionnaire contained the same four semantic differential-type scales employed in the pretest to measure attitudes toward early psychological testing to identify children with criminal potential. The scales used were good-bad, valuable-worthless, pleasant-unpleasant, and fair-unfair (Osgood, Suci, and Tannenbaum, 1957). Since attitude scores were obtained by summing across the scales, a score of 28 indicated the most favorable attitude, a score of four the least favorable. Attitude change was defined as the difference between Ss' attitude scores on the pretest and posttest measures.

Manipulation Checks

The effectiveness of the High Incentive-Low Incentive manipulations was determined by having Ss respond to the following question: How adequate was the incentive for you to act as a confederate in this study? Ss responded on a seven-interval, semantic differential-type scale which were bounded by the adjectives adequate-inadequate.

Perceptions of the feedback manipulations were determined by having Ss respond to the following question: In your role as a confederate in this study, what type of feedback were you asked to administer to the speaker? Ss responded on a scale consisting of three response categories:

(1) I was instructed to administer positive (favorable) feedback to the speaker; (2) I was instructed to administer negative (unfavorable) feedback to the speaker; and (3) I do not know what kind of feedback I was instructed to administer to the speaker.

Results

Manipulation Checks

Incentive.--In order to determine if subjects in each of the incentive conditions accurately perceived the level of the variable to which they were assigned (High Incentive or Low Incentive) and to discover whether or not these perceptions were significantly different, a two-factor analysis of variance was performed on the incentive perception ratings. This analysis (Table 1) yielded a significant incentive main effect. Subsequent t-tests demonstrated that the two levels of the incentive variable were perceived as significantly different (Table 2); thus, the manipulation of the incentive variable was successful.

Feedback.--The effectiveness of the feedback manipulation was assessed by computing the percentage of individuals within each experimental group who accurately perceived the experimental induction. These percentages are reported in Table 3. The figures in this table indicate that with the exception of the Low Incentive:Negative Feedback condition, 100 per cent of the subjects perceived

TABLE 1. Means, standard deviations, and analysis of variance of incentive ratings.*

Condition	Mean	n	Standard Deviation
High Incentive:Positive Feedback	5.90	11	1.04
Low Incentive:Positive Feedback	3.58	12	1.88
High Incentive:Negative Feedback	6.45	11	.52
Low Incentive:Negative Feedback	3.16	12	1.26

Source of Variation	SS	df	MS	F
Incentive	7.87	1	7.87	54.10**
Feedback	.00	1	.00	<1 n.s.
Incentive x Feedback	.23	1	.23	<1 n.s.
Error	5.88	42	.14	
Total	13.98	45		

*Incentive perception scores ranged from 1 (Very Inadequate) to 7 (Very Adequate). Therefore, the higher the rating, the higher the incentive.

**$p < .05$

TABLE 2. t-test comparisons of incentive ratings of experimental groups.

Condition*		High: +	Low: +	High: -	Low: -
	Means	5.90	3.58	6.45	3.16
High: +	5.90	----	3.45**	<1	5.39**
Low: +	3.58		----	4.67**	<1
High: -	6.45			----	7.65**
Low: -	3.16				----

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive: Negative Feedback; Low: - = Low Incentive:Negative Feedback.

**p < .05

TABLE 3. Percentage and frequency of subjects accurately perceiving the feedback condition. Italics indicate intended inductions.

Condition*	Positive	Negative	Do Not Know
High: +	100% (11)		
Low: +	100% (12)		
High: -		100% (11)	
Low: -		93% (11)	7% (1)

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive: Negative Feedback; Low: - = Low Incentive:Negative Feedback.

the type of feedback they were instructed to administer to the speaker as intended. In the Low Incentive:Negative Feedback condition 93 per cent of the subjects accurately perceived the experimental induction. Thus, the manipulation of the Feedback variable was successful.

Test of Primary Hypotheses: Speech Ratings

Two preliminary analyses were performed on the speech rating scores along the four evaluative dimensions. First, mean ratings and standard deviations for experimental and control groups were computed (Table 4). Second, speech rating scores of the experimental and control groups were submitted to a simple analysis of variance (Table 5). This analysis demonstrated that the five groups differed significantly along the four speech rating dimensions. Within each dimension the specific differences between each experimental group and the control group were computed using Scheffe's test (McNemar, 1969). The results of these comparisons are reported in Table 6. They indicate that within each dimension the High Incentive:Positive Feedback condition, the Low Incentive:Positive Feedback condition, and the Low Incentive:Negative Feedback condition were not significantly different from the control group. Examination of Table 6 reveals, however, that within each dimension, with the exception of Delivery, subjects in the High Incentive:Negative Feedback condition rated the

TABLE 4. Mean ratings and standard deviations for experimental and control groups within the four speech rating dimensions.

Rating Dimension	Condition*	Mean	Standard Deviation
Content-Analysis	High: +	4.90	.70
	Low: +	4.75	.96
	High: -	2.90	.99
	Low: -	4.41	1.03
	Control	4.85	1.03
Delivery	High: +	4.63	1.12
	Low: +	4.41	.99
	High: -	3.20	1.13
	Low: -	4.33	1.43
	Control	4.50	1.19
Language	High: +	4.54	1.03
	Low: +	5.08	.28
	High: -	3.50	.97
	Low: -	4.08	1.16
	Control	5.05	.88
Overall Effectiveness	High: +	4.18	1.32
	Low: +	3.91	1.16
	High: -	2.70	1.05
	Low: -	3.58	1.24
	Control	4.25	.96

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive: Negative Feedback; Low - = Low Incentive:Negative Feedback.

TABLE 5. Summary table of analysis of variance of speech ratings of experimental and control groups.

Rating Dimension	Source of Variation	SS	df	MS	F
Content-Analysis	Between	30.62	4	7.65	9.27*
	Within	49.52	60	.82	
	Total	80.15	64		
Delivery	Between	14.28	4	3.57	2.52*
	Within	84.72	60	1.41	
	Total	99.01	64		
Language	Between	22.05	4	5.51	6.61*
	Within	50.01	60	.83	
	Total	72.06	64		
Overall Effectiveness	Between	18.46	4	4.61	3.59*
	Within	77.31	60	1.28	
	Total	95.78	64		

*$p < .05$

TABLE 6. Analysis of differences of speech ratings between each experimental group and control.

Rating Dimension	Condition*		Control
Content-Analysis		Means	4.85
	High: +	4.90	<1 n.s.
	Low: +	4.75	<1 n.s.
	High: -	2.90	5.56**
	Low: -	4.41	<1 n.s.
Delivery		Means	4.50
	High: +	4.63	<1 n.s.
	Low: +	4.41	<1 n.s.
	High: -	3.20	<1 n.s.
	Low: -	4.33	<1 n.s.
Language		Means	5.05
	High: +	4.54	<1 n.s.
	Low: +	5.08	<1 n.s.
	High: -	3.50	4.39**
	Low: -	4.08	<1 n.s.
Overall Effectiveness		Means	4.25
	High: +	4.18	1 n.s.
	Low: +	3.91	1 n.s.
	High: -	2.70	3.75**
	Low: -	3.58	1

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive: Negative Feedback; Low: - = Low Incentive:Negative Feedback.

**$p < .05$

speech significantly more unfavorably than subjects in the control group.

The first hypothesis of this study predicted a significant Feedback main effect along the four evaluative speech rating dimensions; specifically:

> Persons administering positive feedback to a speaker will rate his speech more favorably than persons administering negative feedback.

In order to test this hypothesis, a two-factor analysis of variance was performed on the data for the four rated dimensions of speaking effectiveness. The results of this analysis indicate that Hypothesis 1 is supported (Table 7). In addition, the analysis indicates a significant Incentive main effect along the Content and Analysis and Language dimensions. Finally, the analysis yielded a significant Incentive by Feedback interaction along the Content and Analysis dimension of speaking effectiveness. Examination of Table 8 reveals that the source of this significant feedback by incentive interaction along the Content and Analysis dimension was the High Incentive:Negative Feedback condition. Subjects in this condition rated the speech significantly more unfavorably than subjects in the other three conditions.

The second hypothesis of this study predicted that the effect of administering feedback on subsequent speech ratings would be mitigated to the extent that cues are present implying that the behavior is being emitted for specific reinforcement; specifically:

TABLE 7. Summary table of two-factor analysis of variance of speech ratings.

Rating Dimension	Source of Variation	SS	df	MS	F
Content-Analysis	Incentive (A)	.46	1	.46	7.30*
	Feedback (B)	1.37	1	1.37	21.73*
	A x B	.70	1	.70	11.12*
	Error	2.46	41	.06	
	Total	4.99	44		
Delivery	Incentive (A)	.20	1	.28	<1 n.s.
	Feedback (B)	.57	1	.57	4.59*
	A x B	.45	1	.45	<1 n.s.
	Error	4.92	41	.12	
	Total	6.14	44		
Language	Incentive (A)	.31	1	.31	4.11*
	Feedback (B)	1.04	1	1.04	13.70*
	A x B	.00	1	.00	<1 n.s.
	Error	2.87	41	.07	
	Total	4.22	44		
Overall Effectiveness	Incentive (A)	.09	1	.09	<1 n.s.
	Feedback (B)	.82	1	.82	6.35*
	A x B	.32	1	.32	<1 n.s.
	Error	4.92	41	.12	
	Total	6.15	44		

*$p < .05$

TABLE 8. *t*-test comparisons of mean speech ratings of experimental groups.

Rating Dimension	Condition*		High: +	Low: +	High: -	Low: -
Content-Analysis		Means	4.90	4.75	2.90	4.41
	High: +	4.90	----	<1	5.12**	<1
	Low: +	4.75		----	4.23**	<1
	High: -	2.90			----	4.07**
	Low: -	4.41				----
Delivery		Means	4.63	4.41	3.20	4.33
	High: +	4.63	----	<1	2.76**	<1
	Low: +	4.41		----	2.55**	<1
	High: -	3.20			----	1.93**
	Low: -	4.33				----
Language		Means	4.54	5.08	3.50	4.08
	High: +	4.54	----	<1	2.26**	<1
	Low: +	5.08		----	5.13**	2.78
	High: -	3.50			----	<1
Overall Effectiveness		Means	4.18	3.91	2.70	3.58
	High: +	4.18	----	<1	2.68**	<1
	Low: +	3.91		----	2.42**	<1
	High: -	2.70			----	<1
	Low: -	3.58				----

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive:Negative Feedback; Low: - = Low Incentive:Negative Feedback.

**$p < .05$

(a) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorably than persons administering positive feedback under conditions of high incentive; and conversely,

(b) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison t-tests were performed on all possible two treatment combinations of the experimental groups along each speech rating dimension. The results of these comparisons indicate that Hypothesis 2 is not supported (Table 8). In fact, as noted earlier, subjects in the High Incentive:Negative Feedback condition rated the speech on the dimensions of Content and Analysis and Delivery significantly more unfavorably than subjects in the Low Incentive:Negative Feedback condition. It will be recalled that subjects in the High Incentive:Negative Feedback condition rated the speech on the dimension of Content and Analysis significantly more unfavorably than subjects in the control condition (Table 6). Thus, along the dimension of Content and Analysis, the results of Hypothesis 2(b) are in the opposite direction of that which was predicted.

Test of Secondary Hypotheses:
Credibility

Two preliminary analyses were performed on the credibility rating scores along the three dimensions. First, mean ratings and standard deviations for

experimental and control groups were computed (Table 9). Second, credibility rating scores of the experimental and control groups were submitted to a simple analysis of variance (Table 10). This analysis demonstrated that no significant differences existed in the means of the five groups on the three credibility dimensions.

The third hypothesis of this study predicted a significant Feedback main effect along the three credibility dimensions; specifically:

> Persons administering positive feedback to a speaker will rate him more credible than persons administering negative feedback.

In order to test this hypothesis, a two-factor analysis of variance was performed on the data for the three rated dimensions of credibility. The results of this analysis yielded ambiguous support for Hypothesis 3 (Table 11). Of the three credibility dimensions, Safety was the only one to produce a significant Feedback main effect. Since, however, a previous analysis demonstrated that no significant differences existed in the means of the experimental and control groups (Table 10), it cannot be concluded that Hypothesis 3 is supported along the Safety dimension of credibility.

The fourth hypothesis of this study predicted that the incentive variable would mediate the effect of administering feedback on subsequent credibility ratings; specifically:

TABLE 9. Mean ratings and standard deviations for experimental and control groups within the three credibility dimensions.

Credibility Dimension	Condition*	Mean	Standard Deviation
Qualification	High: +	18.72	3.82
	Low: +	19.41	2.35
	High: -	16.10	3.87
	Low: -	18.91	2.23
	Control	18.05	2.98
Safety	High: +	19.09	3.30
	Low: +	18.16	2.48
	High: -	15.00	2.21
	Low: -	17.16	2.40
	Control	17.90	2.17
Dynamism	High: +	17.81	3.84
	Low: +	15.66	2.90
	High: -	16.20	2.89
	Low: -	18.08	2.31
	Control	16.00	3.04

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive: Negative Feedback; Low: - = Low Incentive:Negative Feedback.

TABLE 10. Summary table of analysis of variance of credibility ratings of experimental and control groups.

Rating Dimension	Source of Variation	SS	df	MS	F
Qualification	Between	71.15	4	17.78	1 n.s.
	Within	565.86	60	9.43	
	Total	637.01	64		
Safety	Between	1159.47	4	289.86	1 n.s.
	Within	8846.76	60	147.44	
	Total	10006.24	64		
Dynamism	Between	66.02	4	16.50	1 n.s.
	Within	546.08	60	9.25	
	Total	612.10	64		

TABLE 11. Summary table of two-factor analysis of variance of credibility ratings.

Rating Dimension	Source of Variation	SS	df	MS	F
Qualification	Incentive (A)	3.07	1	3.07	<1 n.s.
	Feedback (B)	2.44	1	2.44	<1 n.s.
	A x B	1.13	1	1.13	<1 n.s.
	Error	27.36	41	.86	
	Total	33.90	44		
Safety	Incentive (A)	.38	1	.38	<1 n.s.
	Feedback (B)	6.47	1	6.47	10.46*
	A x B	2.38	1	2.38	<1 n.s.
	Error	25.01	41	.61	
	Total	34.24	44		
Dynamism	Incentive (A)	.01	1	.01	<1 n.s.
	Feedback (B)	.15	1	.15	<1 n.s.
	A x B	4.06	1	4.06	4.98*
	Error	33.21	41	.81	
	Total	37.43	44		

*$p < .05$

(a) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; and conversely,

(b) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison t-tests were performed on all possible two-treatment combinations of the experimental groups along each credibility dimension. The results of these comparisons indicate that Hypothesis 4 is not supported (Table 12). In fact, subjects in the High Incentive:Negative Feedback condition rated the speaker on all three dimensions significantly less credible than subjects in the Low Incentive:Negative Feedback condition. It will be recalled, however, that no significant differences existed in the means of the experimental and control groups when they were submitted to a simple analysis of variance (Table 10). Thus, unlike Hypothesis 2(b), it cannot be concluded that the results of Hypothesis 4(b) are in the opposite direction of that which was predicted.

Test of Secondary Hypotheses: Attitude Change

After random assignment of subjects to experimental conditions, three preliminary analyses were performed on the attitude data. First, Bartlett's test for homogeneity of variance (Winer, 1962) was performed on the experimental and control groups' pretest scores. The results indicated

TABLE 12. t-test comparisons of mean credibility ratings of experimental groups.

Credibility Dimension	Condition*		High: +	Low: +	High: -	Low: -
Qualification		Means	18.72	19.41	16.10	18.91
	High: +	18.72	-----	<1	<1	<1
	Low: +	19.41		-----	2.35**	<1
	High: -	16.10			-----	2.03**
	Low: -	18.91				-----
Safety		Means	19.09	18.16	15.00	17.16
	High: +	19.09	-----	<1	3.15**	<1
	Low: +	18.16		-----	2.98**	<1
	High: -	15.00			-----	2.08**
	Low: -	17.16				-----
Dynamism		Means	17.81	15.66	16.20	18.08
	High: +	17.81	-----	<1	<1	<1
	Low: +	15.66		-----	<1	2.17**
	High: -	16.20			-----	2.24**
	Low: -	18.08				-----

*High: + = High Incentive:Positive Feedback; Low: + = Low Incentive:Positive Feedback; High: - = High Incentive:Negative Feedback; Low: - = Low Incentive:Negative Feedback.

**$p < .05$

no significant differences existed in the variances of the five groups ($X^2 = 1.21$; $p > .05$).

Second, a simple analysis of variance was performed on the pretest attitude scores of the experimental and control groups to ensure that the pretest scores were not significantly different. The results of this analysis indicated that the group means did not differ significantly (Table 13).

Finally, attitude change scores of the experimental and control groups were submitted to a simple analysis of variance. The overall amount of change and analysis of variance results are found in Table 14. This analysis demonstrated that no significant differences existed between the five groups on amount of attitude change.

The fifth hypothesis of this study predicted a significant Feedback main effect on attitude change scores; specifically:

> Persons administering positive feedback to a speaker will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering negative feedback.

In order to test this hypothesis, a two-factor analysis of variance was performed on the attitude change scores. The results of this analysis indicated that feedback had no significant effect on subsequent attitude change. Thus, Hypothesis 5 was not supported (Table 15).

The sixth hypothesis of this study predicted that the effect of administering feedback on subsequent attitude

TABLE 13. Means, standard deviations, and analysis of variance of pretest attitude scores for experimental and control groups.

Condition	Mean	Standard Deviation
High Incentive:Positive Feedback	10.45	7.04
Low Incentive:Positive Feedback	15.75	8.46
High Incentive:Negative Feedback	12.20	6.64
Low Incentive:Negative Feedback	16.50	6.31
Control	15.70	7.78

Source of Variation	SS	df	MS	F
Between	328.16	4	82.04	<1 n.s.
Within	3271.77	60	54.52	
Total	3599.93	64		

TABLE 14. Attitude scores, amount of change, and analysis of variance of attitude change scores of experimental and control groups.

Condition	Pretest	Posttest	Change
High: +	10.45	11.45	1.00
Low: +	15.75	15.75	.00
High: -	12.20	11.50	- .70
Low: -	16.50	12.66	-3.83
Control	15.70	15.35	- .35

Source of Variation	SS	df	MS	F
Between	157.74	4	39.43	<1 n.s.
Within	1916.31	60	31.93	
Total	2074.06	64		

TABLE 15. Summary table of two-factor analysis of variance of attitude change scores of experimental groups.

Source of Variation	SS	df	MS	F
Incentive (A)	4.26	1	4.26	<1 n.s.
Feedback (B)	7.64	1	7.64	<1 n.s.
A x B	1.13	1	1.13	<1 n.s.
Error	122.13	41	2.97	
Total	135.20	44		

TABLE 16. t-test comparisons of mean attitude change scores of experimental groups.

Condition		High: +	Low: +	High: -	Low: -
	Means	1.00	.00	-.70	-3.83
High: +	1.00	----	<1	<1	<1
Low: +	.00	<1	----	<1	<1
High: -	- .70			----	<1
Low: -	-3.83				----

change would be mitigated to the extent that cues are present implying that the behavior is being emitted for specific reinforcement; specifically:

> (a) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; and conversely,
>
> (b) Persons administering negative feedback under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison t-tests were performed on all possible two treatment combinations of the experimental groups. The results of these comparisons indicated that Hypothesis 6 is not supported; no significant differences existed among the conditions (Table 16).

Discussion

Experiment I provides partial support for one of Bem's major theoretical premises, that on occasion an individual infers his own internal states by observing his own overt behavior. Inspection of the speech ratings, the primary data in this investigation, supplies strong evidence for this claim. Along each of the four rated dimensions of speaking effectiveness (Content and Analysis, Delivery, Language, and Overall Effectiveness) subjects administering positive feedback to the speaker rate his speech significantly more favorably than persons

administering negative feedback. These results support the earlier findings of Amato and Ostermeier (1967) and Combs and Miller (1968).

Inspection of the credibility ratings and attitude change scores, the secondary data in this investigation, provides ambiguous support for the hypothesis that people on occasion infer their attitudes from their behavior. Safety was the only dimension of credibility to significantly support the prediction that subjects administering positive feedback to a speaker will rate him more credible than persons administering negative feedback. The Qualification dimension of credibility approached significance; positive feedback means were higher than negative feedback means. Along the Dynamism dimension of credibility, however, subjects who administered negative feedback to the speaker rated him more credible than subjects who administered positive feedback. Inspection of the attitude change score means revealed that persons administering positive feedback to a speaker demonstrated greater attitude change in the direction of the position taken in the speech than persons administering negative feedback. Thus, the primary data in Experiment I, speech ratings, provide strong support for the notion that people on occasion infer their attitudes from their behavior while the secondary data, credibility ratings, and attitude change scores provide only partial support.

Bem's second major theoretical premise, that control over an individual's attitudes exerted by his overt behavior is mitigated to the extent that cues are present implying that the behavior is being emitted for immediate specific reinforcement, receives no support whatsoever from Experiment I. Inspection of the speech ratings, the primary data in this investigation, supplies no evidence for this claim. In fact, examination of the means along the four rated dimensions of speaking effectiveness revealed that a reinforcement effect occurred. For three of the four rated dimensions, subjects administering positive feedback to a speaker under conditions of high incentive rated the speech somewhat more favorably than persons administering positive feedback under conditions of low incentive. This reinforcement effect is even more marked in the negative feedback conditions. For all four dimensions, subjects administering negative feedback to a speaker under conditions of high incentive rated his speech more unfavorably than subjects administering negative feedback under conditions of low incentive. In addition, the High Incentive:Negative Feedback condition shows the most powerful effect; i.e., ratings of subjects in that condition differed most markedly from control group ratings.

Examination of the credibility ratings and attitude change scores, the secondary data in this investigation, also revealed a reinforcement effect rather than a self-perception one. Of the six critical mean comparisons made

along the three credibility dimensions, five support a reinforcement interpretation of the data. In contrast, of the two critical comparisons made with the means of the attitude change score data, one produced a self-perception effect (High Incentive:Positive Feedback versus Low Incentive:Positive Feedback) while the other produced a reinforcement effect (High Incentive:Negative Feedback versus Low Incentive:Negative Feedback).

In summary, the data of the present study consistently shows that control over an individual's attitudes exerted by his overt behavior is reinforced to the extent that compensation is provided for the behavior. This finding, of course, is opposed to self-perception predictions.

The results of Experiment I should be approached with caution. Several of the results--especially the ones pertaining to incentive as a mitigator of the extent to which one's attitudes are inferred from one's behavior--are in the opposite direction of self-perception theory, a theory of potential importance. In addition, a university-wide student strike depleted the original subject pool to a level that mitigated against meaningful statistical analysis. The maximum number of subjects in each cell was twelve. Finally, it is of potential import that the experimental speech was of "average" quality across all experimental conditions. While pretest subjects had judged the speech to be "average," it is likely that a practice effect occurred. That is, despite a conscientious effort

to the contrary, it is reasonable to believe that the speech became better each time it was delivered. The control group data, which was obtained last, supports this conclusion to some extent. Moreover, the speech may not depart markedly enough from the behaviors. Such considerations led to a replication of Experiment I with two major exceptions: (1) an attempt was made to obtain a more sufficient sample size, and (2) the quality of the experimental speech was systematically manipulated as a control variable. The next chapter presents the procedures and results of this partial replication.

CHAPTER III

EXPERIMENT II*

Overview

Experiment II was a replication of Experiment I with two major exceptions: (1) an attempt was made to obtain a more sufficient sample size, and (2) the quality of the experimental speech was systematically manipulated.

Rationale and Hypotheses

The hypotheses for Experiment II were generated from the same rationale employed for Experiment I; namely, that an individual's attitude statements may be predicted and controlled by manipulating his overt behavior and the stimulus conditions under which it occurs. Accordingly, Experiment II investigated the following primary hypotheses:

H_1: Persons administering positive feedback to a speaker will rate his speech more favorably than persons administering negative feedback.

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H_2: (a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorably than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorably than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

In addition, Experiment II investigated the following secondary hypotheses:

H_3: Persons administering positive feedback to a speaker will rate him more credible than persons administering negative feedback.

H_4: (a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

H_5: Persons administering positive feedback to a speaker will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering negative feedback.

H_6: (a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

Subjects

Ss were 192 students enrolled in undergraduate communication courses at Michigan State University. Attrition

between the pre- and posttest reduced this number to 119 Ss for the analysis of the attitude change scores only. During the debriefing session an attempt was made to discover those Ss who had known the speaker prior to the speech or who had participated in Experiment I. On this basis five subjects were discarded from the analysis.

Procedures

Pretest

Ss were administered the same pretest employed in Experiment I (see Appendix A). While more skewed than the distribution obtained in Experiment I, the issue producing the most normal range of scores was again the proposition that called for early psychological testing to identify children with criminal potential. This fact, plus considerations of comparability across experiments, led to its re-use in Experiment II.

Independent Variables

Three independent variables were manipulated in this investigation:

1. Incentive. This variable was dichotomized as High Incentive and Low Incentive. Ss in the High Incentive conditions were told that in return for their help as "confederates" in this investigation they would be given $2.50. Unlike Experiment I, they were not told that they would receive credit for an examination without taking it. Ss in

the Low Incentive conditions were simply asked to serve as "confederates." They were not offered compensation for their assistance.

2. Feedback. This variable was dichotomized as Positive Feedback and Negative Feedback. As in Experiment I, Ss were instructed to assume the role of an individual audience member and provide the speaker with nonverbal feedback according to an assigned response role. Ss in the Positive Feedback conditions were instructed to respond favorably to the speaker while Ss in the Negative Feedback conditions were instructed to respond unfavorably. Ss accomplished their feedback task by holding up 3" x 5" index cards every 30 seconds for about 10 seconds. Ss who administered positive feedback to the speaker displayed green cards while Ss who administered negative feedback displayed red cards.

3. Speech Quality. This variable was dichotomized as High Speech Quality and Low Speech Quality. It was included in this investigation to assess the possibility that self-perception effects are partially dependent on the existence of conflicting cues; e.g., the presentation of positive feedback when communication is of relatively low quality. Establishment of such a conflict situation is consistent with the type of environment in which self-perception effects have frequently been observed; i.e., one involving counter-attitudinal advocacy. Employing the "average" speech used in Experiment I as a baseline (see

Appendix B), a speech manuscript was written by the investigator in collaboration with the speaker to represent the High Quality Speech; this was then modified to obtain a speech manuscript representing the Low Quality Speech (see Appendix E).

For the High Quality Speech, an effort was made to keep the organization lucid through the use of clear transitional statements and logical flow of ideas. For the Low Quality Speech, the sentences within each of the three main divisions of the speech (introduction, body, and conclusion) were randomized. This procedure was comparable to one employed by Thompson (1960). The High Quality Speech was written in a conversational style, for example, personal pronouns were used. The Low Quality Speech was written in an impersonal manner, a style similar to the one utilized in this report. Finally, the High Quality Speech was delivered with no nonfluencies or other delivery flaws. The Low Quality Speech was delivered in a similar manner except that a nonfluency was introduced approximately every fourteenth word. This procedure was comparable to one employed by Miller and Hewgill (1965). Both vocalized pauses and repetitions were included in alternating order.

The High Quality and Low Quality Speeches were pretested in order to determine if they were perceived as intended and to discover whether or not these perceptions were significantly different. The results of this pretest

are reported in Table 17. While the High Quality Speech did not receive high or favorable mean ratings in an absolute sense (i.e., "superior" or "excellent"), given Ss' slightly unfavorable attitude toward the speech topic, it was decided that a mean rating of "good" was the most realistic rating that could be achieved. Similarly, the Low Quality Speech did not receive low or unfavorable mean ratings in an absolute sense (i.e., "very poor"). Nevertheless, it was decided that a mean rating of "poor" was adequate for the purposes of this investigation. Thus, the results of the pretest demonstrated that the two versions of the experimental speech were perceived as intended in a relative sense, and these perceptions were significantly different; thus, these two speeches were used in the experiment.

Inductions and Posttest

Approximately two weeks after the pretest had been administered and the experimental issue had been chosen, Ss were induced to perform the task of providing Positive or Negative Feedback to the speaker. E gave the following instructions to Ss in the Low Incentive conditions:

> Several students are conducting a little pilot study to investigate the effects of feedback of communication behavior. What we do is select a number of speakers and then ask audience members to respond to them in a specified manner. We tape record these speeches under various audience feedback conditions and then analyze them for things such as nonfluencies, rate, and verbal output.

TABLE 17. Pretest means, standard deviations, and t-test comparisons of the high quality speech versus the low quality speech within the four speech rating dimensions.

Rating Dimension	Quality of Speech	Mean*	n	Standard Deviation	t
Content-Analysis	High Quality Speech	5.31	16	1.07	7.65**
	Low Quality Speech	2.88	18	.78	
Delivery	High Quality Speech	5.18	16	.83	11.28**
	Low Quality Speech	1.66	18	1.00	
Language	High Quality Speech	5.12	16	.61	7.19**
	Low Quality Speech	2.77	18	1.20	
Overall Effectiveness	High Quality Speech	4.68	16	1.13	7.36**
	Low Quality Speech	2.11	18	.92	

*Speech rating scores ranged from 1 (Very Poor) to 7 (Superior). Therefore, the higher the rating, the more favorable the reaction.

**$p < .05$

Your instructor has consented to allow us to solicit your services as audience members, that is, as our confederates in this little study.

In this particular speaking situation we are asking you to assume the role of an individual audience member and provide the speaker with nonverbal feedback according to an assigned role. You have been given a GREEN (RED) card which will assist you in performing your response role. The GREEN (RED) card represents a favorable (unfavorable) response. That is, each of you will provide the speaker with positive (negative) feedback during his speech. The speaker is aware that a GREEN (RED) card indicates that you approve (disapprove) of his communication behavior.

The speech you will hear is six minutes long. Every 30 seconds you will hold up your card for about 10 seconds indicating that you approve (disapprove) of the speaker and his speech. In order to raise and lower your card at the appropriate time, just follow the lead of my assistant who will be standing behind the speaker attending to the tape recorder.

Are there any questions concerning this procedure before the speaker arrives to present his speech?

Ss in the High Incentive conditions were given the following instructions:

The Department of Communication at Michigan State University has received a large grant from the federal government to investigate the effects of feedback on communication behavior. What we do is select a number of speakers and then ask audience members to respond to them in a specified manner. We tape record these speeches under various audience feedback conditions and then analyze them for things, such as nonfluencies, rate and verbal output.

Your instructor has volunteered your services as audience members, that is, as our confederates in this investigation. Your cooperation is essential to the success of our project. In fact, it is so important that the provisions of our grant enable us to pay you $2.50 for assisting us in this study. That is, at the end of the project this morning (afternoon) we will pay you $2.50 for your help.

Ss in the High Incentive conditions then received exactly the same instructions regarding the administration of the feedback as Ss in the Low Incentive conditions.

In order to maximize and equalize the number of Ss in the eight experimental conditions, as well as achieve partial randomization, classes that met in the same classroom building at the same time were combined. Thus, classes A, B, and C met at 8:00 a.m. in classroom building Y. The Ss in these three classes were randomly assigned to four conditions. Similarly, classes D and E met at 9:10 a.m. in classroom building Y. The Ss in these two classes were randomly assigned to two conditions. Likewise, classes F and G met at 10:20 a.m. in classroom building Y. The Ss in these two classes were combined for one condition. Finally, class H met at 3:00 p.m. in classroom building Y. The Ss in this class constituted one condition. Randomization was achieved by distributing tickets to Ss as they arrived for their regularly scheduled class.

It is important to note that while the task instructions occurred simultaneously for all experimental groups within a particular time period, the experimental speech did not. This is because the experimental design required that the same live speaker present the appropriate manuscript speech (High Quality Speech and Low Quality Speech) to each experimental group. The two versions of the speech were approximately six minutes long. Therefore, there was a time lag between the explanation of the

experimental task and the actual presentation of the speech in four of the eight conditions. In the 8:00 a.m. time period there was no time lag in the High Quality Speech: Low Incentive:Positive Feedback condition. The time lag in the other three experimental conditions ranged from 10 minutes in the High Quality Speech: Low Incentive:Negative Feedback condition to 30 minutes in the High Quality Speech: High Incentive:Negative Feedback condition. In the 9:10 a.m. time period there was no time lag in the Low Quality Speech: Low Incentive:Positive Feedback condition. The time lag in the second condition administered during that time period, the Low Quality Speech: Low Incentive:Negative Feedback treatment, was 10 minutes. Since there was only one condition administered during the 10:20 a.m. and the 3:00 p.m. time periods, there was no time lag.

The speaker, a male confederate of E, was introduced in each condition as one of a number of volunteers for this project. He was unknown to the audience prior to the completion of his speech.

Immediately following the speech Ss completed post-test questionnaires. The instrument contained the same scales employed in the pretest to measure attitudes toward early psychological testing. In addition, it included items designed to measure reactions to the speech, the credibility of the speaker, and to assess the efficacy of

the feedback and incentive manipulations. It was the same posttest employed in Experiment I (see Appendix C).

Immediately following the completion and collection of the posttest questionnaires, E explained the true nature of the study. In addition, in the High Incentive conditions E explained that it would be impossible to pay Ss the $2.50 as stated in the task instructions. At the end of the debriefing session Ss were thanked for their help and dismissed.

Dependent Variables

Like Experiment I, three dependent variables were measured in this investigation: (1) speech ratings; (2) credibility ratings; and (3) attitude change. These variables were operationalized in exactly the same way as they were in Experiment I.

Manipulation Checks

The effectiveness of the High Incentive-Low Incentive manipulations and the Positive Feedback-Negative Feedback manipulations were measured in exactly the same way as they were in Experiment I.

Results

Manipulation Checks

Incentive.--In order to determine if subjects in each of the incentive conditions accurately perceived the

level of the variable to which they were assigned (High Incentive or Low Incentive) and to discover whether or not these perceptions were significantly different, a three-factor analysis of variance was performed on the incentive perception ratings. This analysis (Table 18) yielded a significant incentive main effect. Subsequent t-tests demonstrated that with the exception of the Low Quality Speech: High Incentive:Negative Feedback condition and the Low Quality Speech: Low Incentive:Positive Feedback condition, the two levels of the incentive variable were perceived as significantly different (Table 19); thus, the manipulation of the incentive variable was only partially successful.

Feedback.--The effectiveness of the feedback manipulation was assessed by computing the percentage of individuals within each experimental group who accurately perceived the experimental induction. These percentages are reported in Table 20. The figures in this table indicate that with the exception of the Low Quality Speech: Low Incentive:Negative Feedback condition, 100 per cent of the subjects perceived the type of feedback they were instructed to administer to the speaker as intended. In the Low Quality Speech: Low Incentive:Negative Feedback condition, 92 per cent of the subjects accurately perceived the experimental induction. Thus, the manipulation of the Feedback variable was successful.

TABLE 18. Means, standard deviations, and analysis of variance of incentive ratings.

Condition*	Mean**	n	Standard Deviation
H-Q, H-I, +	5.26	23	1.67
H-Q, H-I, -	5.18	16	1.54
H-Q, L-I, +	3.63	19	1.75
H-Q, L-I, -	3.05	20	1.49
L-Q, H-I, +	5.44	49	1.44
L-Q, H-I, -	4.58	12	2.17
L-Q, L-I, +	4.08	23	1.55
L-Q, L-I, -	3.16	25	1.99

Source of Variation	SS	df	MS	F
Quality of Speech (A)	.05	1	.05	<1 n.s.
Incentive (B)	15.13	1	15.13	5.20***
Feedback (C)	108.45	1	108.45	37.30***
AB	3.27	1	3.27	<1 n.s.
AC	2.43	1	2.43	<1 n.s.
BC	.81	1	.81	<1 n.s.
ABC	.50	1	.50	<1 n.s.
Error	689.91	186		
Total	820.98	193		

*H-Q = High Quality Speech; L-Q = Low Quality Speech; H-I = High Incentive; L-I = Low Incentive; + = Positive Feedback; - = Negative Feedback.

**Incentive perception scores ranged from 1 (Very Inadequate) to 7 (Very Adequate). Therefore, the higher the rating, the higher the incentive.

***$p < .05$

TABLE 19. *t*-test comparisons of mean incentive ratings of experimental groups.

Condition		H-Q,H-I,+	H-Q,H-I,-	H-Q,L-I,+	H-Q,L-I,-	L-Q,H-I,+	L-Q,H-I,-	L-Q,L-I,+	L-Q,L-I,-
	Means	5.26	5.18	3.63	3.05	5.44	4.58	4.08	3.00
H-Q,H-I,+	5.26			3.00*	4.44*			2.43*	4.15*
H-Q,H-I,-	5.18			2.67*	4.08*			<1	3.63*
H-Q,L-I,+	3.63								
H-Q,L-I,-	3.05								
L-Q,H-I,+	5.44			4.30*	6.10*			3.59*	5.95*
L-Q,H-I,-	4.58			<1	<1			<1	<1
L-Q,L-I,+	4.08								
L-Q,L-I,-	3.00								

*$p < .05$

TABLE 20. Percentage and frequency of subjects accurately perceiving the feedback condition. Italics indicate intended inductions.

Condition	Positive	Negative	Do Not Know
H-Q, H-I, +	*100% (23)*		
H-Q, H-I, -		*100% (16)*	
H-Q, L-I, +	*100% (19)*		
H-Q, L-I, -		*100% (20)*	
L-Q, H-I, +	*100% (49)*		
L-Q, H-I, -		*100% (12)*	
L-Q, L-I, +	*100% (23)*		
L-Q, L-I, -		*92% (23)*	8% (2)

Test of Primary Hypotheses:
Speech Ratings

Mean ratings and standard deviations for each experimental group along the four evaluative dimensions of speaking effectiveness were computed (Table 21).

The first hypothesis of this study predicted a significant feedback main effect along the four evaluative speech rating dimensions; specifically:

> Persons administering positive feedback to a speaker will rate his speech more favorably than persons administering negative feedback.

In order to test this hypothesis, a three-factor analysis of variance was performed on the data for the four rated dimensions of speaking effectiveness. The results of this analysis indicate that Hypothesis 1 is not supported (Table 22). The analysis did indicate, however, a significant Quality of Speech by Feedback interaction along the Delivery and Language dimensions of speaking effectiveness. Examination of the treatment means along the Delivery dimension revealed the following nonsymmetrical interaction pattern: persons administering positive feedback to a high quality speech rated the speech less favorably than persons administering negative feedback; but persons administering positive feedback to a low quality speech did not rate the speech significantly different than persons administering negative feedback. An opposite nonsymmetrical pattern produced the significant Quality of Speech by Feedback interaction along the

TABLE 21. Mean ratings and standard deviations for experimental groups within the four speech rating dimensions.

Rating Dimension	Condition	Mean	n	Standard Deviation
Content-Analysis	H-Q, H-I, +	5.21	23	1.06
	H-Q, H-I, -	4.93	16	.82
	H-Q, L-I, +	4.63	19	1.22
	H-Q, L-I, -	4.50	20	1.07
	L-Q, H-I, +	4.26	49	1.27
	L-Q, H-I, -	4.41	12	1.32
	L-Q, L-I, +	4.26	23	1.42
	L-Q, L-I, -	4.20	25	.97
Delivery	H-Q, H-I, +	5.30	23	.80
	H-Q, H-I, -	5.56	16	.99
	H-Q, L-I, +	4.89	19	1.41
	H-Q, L-I, -	4.60	20	.96
	L-Q, H-I, +	3.10	49	1.14
	L-Q, H-I, -	3.33	12	1.17
	L-Q, L-I, +	3.56	23	1.34
	L-Q, L-I, -	3.80	25	1.23
Language	H-Q, H-I, +	5.21	23	.83
	H-Q, H-I, -	5.31	16	1.15
	H-Q, L-I, +	5.05	19	.99
	H-Q, L-I, -	4.60	20	.73
	L-Q, H-I, +	3.98	49	.91
	L-Q, H-I, -	3.91	12	1.18
	L-Q, L-I, +	4.04	23	1.39
	L-Q, L-I, -	4.36	25	1.05
Overall Effectiveness	H-Q, H-I, +	4.65	23	1.16
	H-Q, H-I, -	4.68	16	.84
	H-Q, L-I, +	4.21	19	1.50
	H-Q, L-I, -	4.05	20	1.11
	L-Q, H-I, +	3.55	49	1.32
	L-Q, H-I, -	3.33	12	1.10
	L-Q, L-I, +	3.65	23	1.27
	L-Q, L-I, -	3.52	25	1.38

TABLE 22. Summary table of three-factor analysis of variance of speech ratings.

Rating Dimension	Source of Variation	SS	df	MS	F
Content-Analysis	Quality of Speech (A)	11.60	1	11.60	8.01*
	Incentive (B)	3.91	1	3.91	<1 n.s.
	Feedback (C)	.26	1	.26	<1 n.s.
	AB	.63	1	.63	<1 n.s.
	AC	1.62	1	1.62	<1 n.s.
	BC	.01	1	.01	<1 n.s.
	ABC	.37	1	.37	<1 n.s.
	Error	280.74	186		
	Total	299.14	193		
Delivery	Quality of Speech (A)	108.75	1	108.75	78.42*
	Incentive (B)	.49	1	.49	<1 n.s.
	Feedback (C)	.46	1	.46	<1 n.s.
	AB	.63	1	.63	<1 n.s.
	AC	13.38	1	13.38	9.65*
	BC	.76	1	.76	<1 n.s.
	ABC	.78	1	.78	<1 n.s.
	Error	397.45	186		
	Total	522.73	193		
Language	Quality of Speech (A)	30.08	1	30.08	34.48*
	Incentive (B)	.34	1	.34	<1 n.s.
	Feedback (C)	.02	1	.02	<1 n.s.
	AB	.94	1	.94	<1 n.s.
	AC	4.84	1	4.84	4.38*
	BC	.07	1	.07	<1 n.s.
	ABC	2.17	1	2.17	<1 n.s.
	Error	197.66	186		
	Total	236.13	193		
Overall Effectiveness	Quality of Speech (A)	31.72	1	31.72	19.11*
	Incentive (B)	1.58	1	1.58	<1 n.s.
	Feedback (C)	.57	1	.57	<1 n.s.
	AB	.12	1	.12	<1 n.s.
	AC	4.72	1	4.72	<1 n.s.
	BC	.03	1	.03	<1 n.s.
	ABC	.20	1	.20	<1 n.s.
	Error	337.06	186		
	Total	376.02	193		

*$p < .05$

Language dimension: persons administering positive feedback to a high quality speech rated the speech significantly more favorable than persons administering negative feedback; but, persons administering positive feedback to a low quality speech did not rate the speech significantly more favorable than persons administering negative feedback. Thus, for those people administering feedback to a high quality speech along the delivery dimension, the results are in the opposite direction of those predicted for Hypothesis 1. Conversely, for those people administering feedback to a low quality speech along the Language dimension, the results confirm Hypothesis 1. The analysis also yielded a significant Quality of Speech main effect along all four dimensions of speaking effectiveness. Persons exposed to a high quality speech rated it more favorably than persons exposed to a low quality speech.

The second hypothesis of this study predicted that the effect of administering feedback on subsequent speech ratings would be mitigated to the extent that cues are present implying that the behavior is being emitted for specific reinforcement; specifically:

(a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorable than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate his speech more favorably than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate his speech more unfavorably than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison t-tests were performed on all possible two treatment combinations of the experimental groups along each speech rating dimension. The results of these comparisons provide minimal support for Hypothesis 2 (Table 23). Examination of Table 23 reveals that along the dimension of delivery subjects in the High Quality Speech: Low Incentive:Negative Feedback condition rated the speech significantly more unfavorably than subjects in the High Quality Speech: High Incentive: Negative Feedback condition. Thus, the only aspect of Hypothesis 2 to receive partial support was (a) (2).

Test of Secondary Hypotheses:
Credibility

Mean ratings and standard deviations for each experimental group along the three credibility dimensions were computed (Table 24).

TABLE 23. t-test comparisons of mean speech ratings of experimental groups.

Rating Dimension	Condition		H-Q,H-I,+	H-Q,H-I,-	H-Q,L-I,+	H-Q,L-I,-	L-Q,H-I,+	L-Q,H-I,-	L-Q,L-I,+	L-Q,L-I,-
Content-Analysis		Means	5.21	4.93	4.63	4.50	4.26	4.41	4.26	4.20
	H-Q,H-I,+	5.21								
	H-Q,H-I,-	4.93	<1							
	H-Q,L-I,+	4.63	<1	<1						
	H-Q,L-I,-	4.50	<1	<1	<1					
	L-Q,H-I,+	4.26	3.06*	<1	<1					
	L-Q,H-I,-	4.41	<1	<1	<1	<1				
	L-Q,L-I,+	4.26	2.51*	<1	<1	<1	<1	<1		
	L-Q,L-I,-	4.20	3.38*	<1	<1	<1	<1	<1	<1	
Delivery		Means	5.30	5.56	4.89	4.60	3.10	3.33	3.56	3.80
	H-Q,H-I,+	5.30								
	H-Q,H-I,-	5.56	<1							
	H-Q,L-I,+	4.89	<1	<1						
	H-Q,L-I,-	4.60	2.52*	3.36*	<1					
	L-Q,H-I,+	3.10	8.18*	7.56*	5.32*	5.07*				
	L-Q,H-I,-	3.33	5.66*	5.21*	2.63*	3.19*	<1			
	L-Q,L-I,+	3.56	5.21*	<1	3.04*	2.80*	<1	<1		
	L-Q,L-I,-	3.80	4.59*	4.42*	2.53*	<1	<1	<1	<1	
Language		Means	5.21	5.31	5.05	4.60	3.98	3.91	4.04	4.36
	H-Q,H-I,+	5.21								
	H-Q,H-I,-	5.31	<1							
	H-Q,L-I,+	5.05	<1	<1						
	H-Q,L-I,-	4.60	2.47*	<1	<1					
	L-Q,H-I,+	3.98	5.40*	4.64*	4.15*	<1				
	L-Q,H-I,-	3.91	3.66*	3.01*	2.78*	<1	<1			
	L-Q,L-I,+	4.04	3.37*	2.91*	2.57*	<1	<1	<1		
	L-Q,L-I,-	4.36	2.97*	2.59*	<1	<1	<1	<1	<1	
Overall Effectiveness		Means	4.65	4.68	4.21	4.05	3.55	3.33	3.65	3.52
	H-Q,H-I,+	4.65								
	H-Q,H-I,-	4.68	<1							
	H-Q,L-I,+	4.21	<1	<1						
	H-Q,L-I,-	4.05	<1	<1	<1					
	L-Q,H-I,+	3.55	3.36*	3.15*	<1	<1				
	L-Q,H-I,-	3.33	3.14*	3.52*	<1	<1	<1			
	L-Q,L-I,+	3.65	2.72*	2.76*	<1	<1	<1	<1		
	L-Q,L-I,-	3.52	2.96*	2.90*	<1	<1	<1	<1	<1	

*p < .05

TABLE 24. Mean ratings and standard deviations for experimental groups within the three credibility dimensions.

Credibility Dimension	Condition	Mean	n	Standard Deviation
Qualification	H-Q,H-I,+	20.87	23	2.38
	H-Q,H-I,-	20.68	16	2.61
	H-Q,L-I,+	19.68	19	4.06
	H-Q,L-I,-	18.35	20	3.16
	L-Q,H-I,+	16.34	49	3.27
	L-Q,H-I,-	15.66	12	3.27
	L-Q,L-I,+	15.52	23	4.07
	L-Q,L-I,-	16.48	25	3.25
Safety	H-Q,H-I,+	18.30	23	2.28
	H-Q,H-I,-	17.75	16	2.17
	H-Q,L-I,+	18.15	19	2.58
	H-Q,L-I,-	17.80	20	2.78
	L-Q,H-I,+	18.08	49	3.40
	L-Q,H-I,-	17.66	12	3.25
	L-Q,L-I,+	17.82	23	2.67
	L-Q,L-I,-	17.48	25	2.58
Dynamism	H-Q,H-I,+	17.08	23	3.92
	H-Q,H-I,-	16.43	16	3.02
	H-Q,L-I,+	16.15	19	3.55
	H-Q,L-I,-	15.60	20	2.72
	L-Q,H-I,+	14.32	49	2.41
	L-Q,H-I,-	13.00	12	2.51
	L-Q,L-I,+	14.69	23	2.78
	L-Q,L-I,-	14.92	25	3.34

The third hypothesis of this study predicted a significant feedback main effect along the three credibility dimensions; specifically:

> Persons administering positive feedback to a speaker will rate him more credible than persons administering negative feedback.

In order to test this hypothesis, a three-factor analysis of variance was performed on the data for the three credibility dimensions. The results of this analysis indicated that feedback had no significant effect on subsequent credibility ratings (Table 25). Thus, Hypothesis 3 was not supported. The analysis did indicate, however, a significant Quality of Speech by Feedback interaction along the Dynamism dimension. Examination of the treatment means revealed the following nonsymmetrical interaction pattern: persons administering positive feedback to a high quality speech rated the speaker significantly more credible than persons administering negative feedback; but, persons administering positive feedback to a low quality speech did not rate the speaker significantly different than persons administering negative feedback. Thus, for those people administering feedback to a high quality speech along the dimension of Dynamism, the results confirm Hypothesis 1. The analysis also yielded a significant Quality of Speech main effect along the dimensions of Safety and Dynamism. Persons exposed to a high quality speech rated the speaker more credible than persons exposed to a low quality speech.

TABLE 25. Summary table of three-factor analysis of variance of credibility ratings.

Rating Dimension	Source of Variation	SS	df	MS	F
Qualification	Quality of Speech (A)	2.31	1	2.31	1 n.s.
	Incentive (B)	.73	1	.73	1 n.s.
	Feedback (C)	7.07	1	7.07	1 n.s.
	AB	.05	1	.05	1 n.s.
	AC	.30	1	.30	1 n.s.
	BC	.17	1	.17	1 n.s.
	ABC	.06	1	.06	1 n.s.
	Error	1455.79	186		
	Total	1467.13	193		
Safety	Quality of Speech A	612.91	1	612.91	53.35*
	Incentive (B)	31.56	1	31.56	1 n.s.
	Feedback (C)	3.87	1	3.87	1 n.s.
	AB	8.13	1	8.13	1 n.s.
	AC	31.14	1	31.14	1 n.s.
	BC	.59	1	.59	1 n.s.
	ABC	19.67	1	19.67	1 n.s.
	Error	2799.23	186		
	Total	3507.19	193		
Dynamism	Quality of Speech (A)	175.73	1	175.73	18.39*
	Incentive (B)	.69	1	.69	1 n.s.
	Feedback (C)	13.47	1	13.47	1 n.s.
	AB	.02	1	.02	1 n.s.
	AC	41.55	1	41.55	4.35*
	BC	6.81	1	6.81	1 n.s.
	ABC	5.38	1	5.38	1 n.s.
	Error	1940.86	186		
	Total	2184.53	193		

*$p < .05$

The fourth hypothesis of this study predicted that the incentive variable would mediate the effect of administering feedback on subsequent credibility ratings; specifically:

(a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will rate the speaker more credible than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will rate the speaker less credible than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison *t*-tests were performed on all possible two treatment combinations of the experimental groups along each credibility dimension. The results of these comparisons indicated that Hypothesis 4 is not supported (Table 26).

Test of Secondary Hypotheses: Attitude Change

Two preliminary analyses were performed on the attitude data. First, Bartlett's test for homogeneity of

TABLE 26. t-test comparisons of mean credibility ratings of experimental groups.

Credibility Dimension	Condition		H-Q,H-I,+	H-Q,H-I,-	H-Q,L-I,+	H-Q,L-I,-	L-Q,H-I,+	L-Q,H-I,-	L-Q,L-I,+	L-Q,L-I,-
Qualification		Means	20.87	20.68	19.68	18.35	16.34	15.66	15.52	16.48
	H-Q,H-I,+	20.87								
	H-Q,H-I,-	20.68	<1							
	H-Q,L-I,+	19.68	<1	<1						
	H-Q,L-I,-	18.35	2.90*	<1	<1					
	L-Q,H-I,+	16.34	5.85*	4.74*	3.46*	<1				
	L-Q,H-I,-	15.66	5.22*	4.54*	2.79*	<1	<1			
	L-Q,L-I,+	15.52	5.32*	4.35*	3.21*	2.45*	<1	<1		
	L-Q,L-I,-	16.48	4.99*	4.08	2.72	<1	<1	<1	<1	
Safety		Means	18.30	17.75	18.15	17.80	18.08	17.66	17.82	17.48
	H-Q,H-I,+	18.30								
	H-Q,H-I,-	17.75	<1							
	H-Q,L-I,+	18.15	<1	<1						
	H-Q,L-I,-	17.80	<1	<1	<1					
	L-Q,H-I,+	18.08	<1	<1	<1	<1				
	L-Q,H-I,-	17.66	<1	<1	<1	<1	<1			
	L-Q,L-I,+	17.82	<1	<1	<1	<1	<1	<1		
	L-Q,L-I,-	17.48	<1	<1	<1	<1	<1	<1	<1	
Dynamism		Means	17.08	16.43	16.15	15.60	14.32	13.00	14.69	14.92
	H-Q,H-I,+	17.08								
	H-Q,H-I,-	16.43	<1							
	H-Q,L-I,+	16.15	<1	<1						
	H-Q,L-I,-	15.60	<1	<1	<1					
	L-Q,H-I,+	14.32	3.61*	2.79*	2.39*	<1				
	L-Q,H-I,-	13.00	3.17*	2.77*	2.58*	2.60*	<1			
	L-Q,L-I,+	14.69	<1	<1	<1	<1	<1	<1		
	L-Q,L-I,-	14.92	<1	<1	<1	<1	<1	<1	<1	

*p < .05

variance (Winer, 1962) was performed on the pretest scores. The results indicated no significant differences existed in the variances of the eight groups ($X^2 = 2.17$; $p > .05$). Second, a simple analysis of variance was performed on the pretest attitude scores to ensure that the pretest scores were not significantly different. The results of this analysis indicated that the group means did not differ significantly (Table 27). Mean pretest, posttest, and attitude change scores for the experimental groups are found in Table 28.

The fifth hypothesis of this study predicted a significant Feedback main effect on attitude change scores; specifically:

> Persons administering positive feedback to a speaker will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering negative feedback.

In order to test this hypothesis, a three-factor analysis of variance was performed on the attitude change scores. The results of this analysis indicated that feedback had no significant effect on subsequent attitude change. Thus, Hypothesis 5 was not supported (Table 29).

The sixth hypothesis of this study predicted that the effect of administering feedback on subsequent attitude change would be mitigated to the extent that cues are present implying that the behavior is being emitted for specific reinforcement; specifically:

TABLE 27. Means, standard deviations, and analysis of variance of pretest attitude scores for experimental groups.

Condition	Mean	n	Standard Deviation
H-Q, H-I, +	17.40	15	5.02
H-Q, H-I, -	13.33	12	7.37
H-Q, L-I, +	13.50	18	5.76
H-Q, L-I, -	10.41	12	7.70
L-Q, H-I, +	11.89	19	7.66
L-Q, H-I, -	10.58	12	6.82
L-Q, L-I, +	15.17	17	7.40
L-Q, L-I, -	13.07	13	6.73

Source of Variation				
Between	540.86	7	77.26	<1 n.s.
Within	5044.02	109	46.27	
Total	5584.88	116		

TABLE 28. Mean pretest, posttest, and attitude change scores for experimental groups.

Condition	n	Pretest	Posttest	Change
H-Q, H-I, +	15	17.40	18.53	1.13
H-Q, H-I, -	12	13.33	13.00	-0.33
H-Q, L-I, +	18	13.50	13.88	0.38
H-Q, L-I, -	12	10.41	11.41	1.00
L-Q, H-I, +	19	11.89	13.57	1.68
L-Q, H-I, -	12	10.58	11.41	0.83
L-Q, L-I, +	17	15.17	13.41	-1.76
L-Q, L-I, -	14	13.50	11.85	-1.64

TABLE 29. Summary table of three-factor analysis of variance of attitude change scores of experimental groups.

Source of Variation	SS	df	MS	F
Quality of Speech (A)	12.17	1	12.17	1 n.s.
Incentive (B)	26.38	1	26.38	1 n.s.
Feedback (C)	.09	1	.09	1 n.s.
AB	44.35	1	44.35	1 n.s.
AC	5.12	1	5.12	1 n.s.
BC	4.41	1	4.41	1 n.s.
ABC	2.61	1	2.61	1
Error	3830.64	186		
Total	3925.79	193		

(a) Given a high quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

(b) Given a low quality speech,

(1) Persons administering positive feedback to a speaker under conditions of low incentive will demonstrate greater attitude change in the direction of the position taken in the speech than persons administering positive feedback under conditions of high incentive; conversely,

(2) Persons administering negative feedback to a speaker under conditions of low incentive will demonstrate greater attitude change counter to the position taken in the speech than persons administering negative feedback under conditions of high incentive.

In order to test this hypothesis, multiple comparison *t*-tests were performed on all possible two treatment combinations of the experimental groups. The results of these comparisons indicated that Hypothesis 6 is not supported; no significant differences existed among the conditions (Table 30).

Discussion

In contrast to Experiment I, Experiment II provides only a modicum of support for one of Bem's major theoretical premises, that on occasion an individual infers his own

TABLE 30. t-test comparisons of mean attitude change scores of experimental groups.

Condition		H-Q,H-I,+	H-Q,H-I,-	H-Q,L-I,+	H-Q,L-I,-	L-Q,H-I,+	L-Q,H-I,-	L-Q,L-I,+	L-Q,L-I,-
	Means	1.13	-0.33	0.38	1.00	1.68	0.83	-1.76	-1.64
H-Q,H-I,+	1.13								
H-Q,H-I,-	-0.33	<1							
H-Q,L-I,+	0.38	<1	<1						
H-Q,L-I,-	1.00	<1	<1	<1					
L-Q,H-I,+	1.68	<1	<1	<1	<1				
L-Q,H-I,-	0.83	<1	<1	<1	<1	<1			
L-Q,L-I,+	-1.76	<1	<1	<1	<1	<1	<1		
L-Q,L-I,-	-1.64	<1	<1	<1	<1	<1	<1	<1	

attitudes by observing his own overt behavior. Inspection of the speech ratings, the primary data in this investigation, revealed that along each of the four rated dimensions of speaking effectiveness the feedback variable did not produce a significant main effect. There was, however, a trend in the predicted direction. With the exception of the Delivery dimension, persons administering positive feedback to a speaker rated his speech somewhat more favorably than persons administering negative feedback. The nonsymmetrical Quality of Speech by Feedback interaction along the dimension of Language provides additional insight into the dynamics of the present investigation. Persons administering positive feedback to a high quality speech rated the speech significantly more favorably than persons administering negative feedback; but, persons administering positive feedback to a low quality speech did not rate the speech significantly different than persons administering negative feedback. A nonsymmetrical Quality of Speech by Feedback interaction along the dimension of Delivery produced an opposite pattern. Persons administering positive feedback to a high quality speech rated the speech significantly less favorably than persons administering negative feedback; but, persons administering positive feedback to a low quality speech did not rate the speech significantly different than persons administering negative feedback. Thus, Speech Quality (High and Low) mediated the effect of administering feedback on subsequent

speech ratings along the dimensions of Language and Delivery. In addition, a significant Quality of Speech main effect was observed along all four dimensions of speaking effectiveness. Persons exposed to a high quality speech rated the speech more favorably than persons exposed to a low quality speech.

In comparison to Experiment I, the credibility ratings and the attitude change scores of Experiment II provide little support for the hypothesis that people on occasion infer their attitudes from their behavior. None of the three dimensions of credibility produced a significant feedback main effect. There was, however, a trend in the predicted direction along all three credibility dimensions. Persons administering positive feedback to a speaker rated him somewhat more credible than persons administering negative feedback. Inspection of the attitude change scores revealed a similar trend. Persons administering positive feedback to a speaker demonstrated somewhat greater attitude change in the direction of the position taken in the speech than persons administering negative feedback.

Like Experiment I, Bem's second major theoretical premise, that control over an individual's attitudes exerted by his overt behavior is mitigated to the extent that cues are present implying that the behavior is being emitted for immediate specific reinforcement, receives little support from Experiment II. Inspection of the

speech rating data revealed only one hypothesized difference. Along the dimension of Delivery, persons administering negative feedback to a high quality speech under conditions of low incentive rated the speech significantly more unfavorably than persons administering negative feedback under conditions of high incentive. The same pattern, while not significant, was also observed along the other three dimensions of speaking effectiveness. The High Quality Speech: Low Incentive:Negative Feedback means were somewhat lower than the High Quality Speech: High Incentive:Negative Feedback means. The mean ratings along all four dimensions in the Low Quality Speech: High Incentive:Positive Feedback condition versus the Low Quality Speech: Low Incentive:Positive Feedback condition were also in the predicted direction. One exception to this trend was along the Content and Analysis dimension; the means were equal.

Like Experiment I, examination of the means along the four rated dimensions also revealed the occurrence of a reinforcement effect. Subjects administering positive feedback to a high quality speech under conditions of high incentive rated the speech along all four dimensions somewhat more favorably than subjects administering positive feedback under conditions of low incentive. With the exception of the Content and Analysis dimension, a similar effect occurred in the Low Quality Speech: High

Incentive:Negative Feedback condition versus the Low Quality Speech: Low Incentive:Negative Feedback condition.

The speech rating data lend themselves to a potentially important interpretation. It will be recalled that the rationale for systematically manipulating the quality of the experimental speech was rooted in the possibility that self-perception effects are partially dependent on the existence of conflicting cues. Establishment of such a conflict situation is consistent with the type of environment in which self-perception effects have frequently been observed; i.e., one involving counter-attitudinal advocacy. Thus, in the present investigation subjects administering positive feedback to a high quality speech or negative feedback to a low quality speech can be considered to be in a belief-consistent situation. The feedback they are administering is consistent with the quality of the speech to which they are being exposed. Conversely, subjects administering positive feedback to a low quality speech or negative feedback to a high quality speech can be considered to be in a belief-inconsistent situation. The feedback they are administering is inconsistent with the quality of the speech to which they are being exposed. Of eight critical comparisons, seven revealed that a reinfrocement effect occurred in the belief-consistent conditions. Conversely, of eight critical comparisons, seven revealed that a

reinforcement effect occurred in the belief-consistent conditions. Conversely, of eight critical comparisons, seven revealed that a self-perception effect occurred in the belief-inconsistent conditions. While offering radically different mechanisms for the effect, both Bem's theory of self-perception and Festinger's theory of cognitive dissonance would predict the outcome observed in the belief-inconsistent conditions. The preceding interpretation of the speech rating data leads to the following speculative statement: perhaps Bem's theory of self-perception, like Festinger's theory of cognitive dissonance, is limited to the same set of behavioral conditions.

Examination of the credibility ratings and attitude change scores, the secondary data in this investigation, revealed a more ambiguous pattern than the one observed for the speech ratings. Of the six critical mean comparisons made along the three credibility dimensions in those cells previously labeled "belief-consistent," five support a reinforcement interpretation of the data. In contrast, of the two critical comparisons made with the attitude change data in the belief-consistent conditions, one produced a reinforcement effect while the other produced a self-perception effect. Of the six critical mean comparisons made along the three credibility dimensions in those cells previously labeled "belief-inconsistent," three support a reinforcement interpretation of the data

while three support a self-perception interpretation. The attitude change scores in the belief-inconsistent conditions produced one reinforcement effect and one self-perception effect.

Like Experiment I, the results of Experiment II should be approached with caution. The remainder of this section discusses problems peculiar to Experiment II, while the next chapter deals with enigmas common to both experiments. First, Experiment II's pretest questionnaire produced an unexpected negative reaction among some of the subjects toward research. The instrument contained several issues that proved to be salient and ego-involving for undergraduate students (see Appendix A). The purpose of the questionnaire was ostensibly to solicit student opinion on possible issues to be used in a project for another class. The identical questionnaire had been used in Experiment I, as well as other research projects (Bodaken, 1970; Burgoon, 1970), with no adverse consequences. Nevertheless, recent events--both national and local--made many students wary of expressing their attitudes towards issues such as drug use and the Vietnam War. While it was made clear that completing the questionnaire was voluntary, some students believed it was a technique to obtain information that could be used against them in some way, such as expelling them from school. This somewhat paranoic belief cummulated in several telephone calls from irate parents. Unfortunately, this negative reaction did

not surface until after the collection of the data. Doubly unfortunate is the fact that problems associated with the pretest questionnaire could have been avoided. Subjects could have been identified by means of birthdays and hometowns rather than by names. In addition, attitude change scores were not central to this investigation--they could have been omitted. In any event, it is reasonable to believe that the negative reaction to the pretest questionnaire mediated at least some of the subject's behavior in Experiment II and their subsequent responses on the posttest questionnaire.

Closely associated with the questionnaire problem was the psychological milieu in which the experiment was conducted. Although the experiment was run in introductory communication courses, many of the students were enrolled in the course for a second time--they had participated in the university-wide student strike the previous quarter and had either failed the course or had dropped it. Consequently, they were somewhat hostile toward the course and events associated with it, such as participating in a research project. This state of affairs no doubt influenced some of the subject's behavior in the experiment.

Finally, in contrast to Experiment I, there were many subjects who did not actually administer the appropriate feedback to the speaker, or did so half-heartedly, even though they are previously agreed to do so. This was especially true in the negative feedback conditions.

During the debriefing sessions, some subjects commented that they had decided during the speech that it was heartless to give cues of disapproval to someone; especially someone they did not know. Other subjects (in both the positive and negative feedback conditions) said that they had decided during the speech that they could not give cues of approval (disapproval) to a speaker with whom they disagreed. Because this development was unexpected, there were no controls built into the experimental design to cope with it.

In summary, confidence in the results of Experiment II is lessened because of the circumstances outlined above. The final chapter discusses problems associated with both Experiment I and II.

CHAPTER IV

DISCUSSION

The results of Experiment I and II have been thoroughly discussed elsewhere in this report. In addition, enigmas peculiar to each experiment have been explored. This chapter deals with matters of import common to both experiments. More specifically, explanations are offered for the failure to more strongly support Bem's major theoretical premises.

The manipulation of the incentive variable is one factor which could account for the mixed pattern of results. With only minor exception in Experiment II, subjects in both experiments perceived the two levels of the incentive variable (High Incentive and Low Incentive) as significantly different. These perceptions, however, were relative rather than absolute. Part of the rationale for both studies was that subjects who are compensated for administering either positive or negative feedback will discard their behavior as a relevant guide to their "actual" attitudes. Since most High Incentive subjects believed that the compensation was only "slightly adequate," it is reasonable to believe that the manipulation

of this variable was not potent enough to produce the desired effect. Experiment I and II were also based on the rationale that subjects who receive little or no compensation for administering either the positive or negative feedback have no justification for discarding their behavior as a relevant guide to their "actual" attitudes. Since most low Incentive subjects believed that the compensation for them to act as "confederates" was only "slightly inadequate," it is reasonable to believe that some amount of immediate specific reinforcement was present in the experimental situation. For example, some subjects reported that "It was incentive enough for me just to get out of class and not have to take notes." Thus, some Low Incentive subjects believed that they did have a good reason for performing the behavior.

Another possible explanation for failure to more strongly support Bem's major theoretical premises involves the kind of behavior subjects were induced to perform; i.e., administering feedback to an unknown speaker. Perhaps giving feedback is not associated with truth-telling. The remarks, "I didn't want to tell him to his face how I felt" and "I played it close to my chest" are common examples of conscious attempts by individuals to mask or distort feedback. Insight into this explanation is found in a study reviewed earlier (Bem, 1965). It will be recalled that "truth" and "lie" signals were "raised from birth" in the laboratory so that their meanings would be

unambiguous. Bem's assumption was that the small and large amounts of money in the dissonance experiments act respectively as "truth" or "lie" signals to the subjects, informing them whether or not to believe their own essays. The first part of the procedure was to "raise in the laboratory" external stimuli which had, in the past, been associated with truth-telling or lie-telling. The next part of the procedure was designed to have subjects make factual statements in the presence of these external stimuli. Subjects were persuaded to a greater extent by comments made in the presence of "truth" signals than by comments made in the presence of "lie" signals. Thus, if feedback is not associated with truth-telling, it could act as a "lie" signal, telling the subject that his behavior is irrelevant to his true attitudes.

Another plausible reason for the failure to more strongly confirm the theory of self-perception involves the perceived relevance of the subject's behavior. It will be recalled that Kiesler, Nisbett, and Zana (1970) found that Bem's hypothesis that people infer their attitudes from their behavior occurs only when there are cues implying that behavior is relevant to belief. Perhaps subjects did not perceive a connection between administering the feedback and their true attitudes toward the quality of the speech, the credibility of the speaker, and the issue he discussed.

A possible contributing factor to the heterogeneous findings of both studies involves the fact that the experimental design required as many as four different experimenters administering a treatment group. This, of course, can lead to extraneous variables which influence all subjects within a given cell to some extent; but influence subjects in other groups to different extents. While all experimenters were thoroughly trained and given a written description of the procedures to follow, Type G error is a serious possibility.

In summary, Experiment I was plagued with a university-wide student strike which seriously reduced the number of subjects in each experimental condition. In addition, it was difficult to maintain a speech of "average" quality across all experimental conditions. Experiment II was plagued with a negative reaction to the pretest questionnaire, and a hostile psychological milieu due to events associated with the strike. Moreover, in contrast to Experiment I, there were many subjects who did not actually administer the feedback. Finally, both studies suffered from a somewhat unsuccessful incentive manipulation, the possibility that feedback is not associated with truth-telling, the contingency that subjects did not perceive the feedback relevant to their "actual" attitudes, and the danger of Type G error.

Implications for Further Research

While the primary hypotheses of both studies yielded heterogeneous findings, several implications for further research in the area of self-perception can be suggested. First, the results of Experiment I and II are of sufficient interest and potential importance to merit a partial replication. This replication presupposes the successful manipulation of the incentive variable. It is obvious that present operational procedures for manipulating the incentive variable need to be re-examined. Higher incentive ratings probably could be obtained if subjects are actually paid during the task instructions. The possibility exists, of course, that money is not a potent enough incentive for the typical undergraduate student. Hanneman (1970), for example, offered to pay undergraduate students $2.50 for participating in a 20 minute research project. Seventy-five per cent of the subjects failed to keep their appointments. In research designed to learn what constitutes incentive for participating in research for the typical undergraduate student, Miller and Perry (1970) found that monetary incentives rank rather low in comparison with other forms of compensation. Equally important is the need to perform a successful low incentive manipulation. In addition to not offering subjects any compensation for participating in research, perhaps low incentive could be successfully induced by having them wait an inordinate

length of time between the explanation of the task and the arrival of the speaker.

Given a successful incentive manipulation, two additional modifications are required in any replication of the present investigation. First, the manipulation should be performed outside of the classroom setting and subjects should be randomly assigned to treatment groups. This procedure will eliminate three problems inherent in Experiment I and II: (1) the time lag between the explanation of the experimental task and the introduction of the speaker; (2) partial randomization; and (3) Type G error. The second modification involves the pretest questionnaire. Since the attitude change scores are of only tangential significance, the pretest questionnaire should be eliminated. Taken together, these modifications should result in a more powerful test of Bem's theory of self-perception.

Bem's interpersonal replication methodology is itself a worthwhile area for further research. An observer-subject could actually be given a description of the conditions of the replication proposed above and asked to estimate the attitude of the subject toward the quality of the speech. In fact, the observer-subject could actually watch and listen to the speech on video-tape. Self-perception theory predicts that the attitude estimates of observer subjects toward the quality of the speech

should correspond with the hypotheses of the original feedback experiment.

Finally, as a modification of Bem's interpersonal replication methodology, it would be worthwhile to have subjects role play the behavior of one of the subjects in the proposed replication. The role-playing subject could be given a description of one of the conditions of the replication proposed above and asked to behave like he thinks the actual subjects behaved as he attends to the video-taped speech.

Bem's theory of self-perception is a plausible and potentially important notion. This investigation has attempted to provide insight into Bem's major theoretical premises. Hopefully, the results will contribute to existing knowledge about the relationship between attitudes and behavior and will lead to further investigation of the process of self-perception; especially as it relates to human communication phenomena.

Summary

Two separate experiments were conducted to examine the effects of administering positive or negative feedback to an unknown speaker for low compensation or high compensation. The primary dependent variable was ratings of speaking effectiveness. Credibility ratings and attitude change scores were also obtained. Hypotheses were based on Bem's self-perception theory. In essence, this

theory proposes that: (1) under certain cricumstances an individual infers his own attitudes from his own behavior; and (2) incentive mitigates the extent to which one's attitudes are inferred from one's behavior. Both studies yielded heterogeneous findings. Experiment I provided strong support for Bem's first premise. Along each of the four rated dimensions of speaking effectiveness persons administering positive feedback to a speaker rated his speech significantly more favorably than persons administering negative feedback. In contrast, Experiment II provided only a modicum of support for Bem's hypothesis. In addition, both experiments were consistent in not supporting Bem's second major theoretical premise. In fact, the speech ratings in Experiment I produced means which reflected a reinforcement effect. Subjects administering positive feedback to a speaker under conditions of high incentive rated the speaker somewhat more favorably than persons administering positive feedback under conditions of low incentive. Conversely, subjects administering negative feedback to a speaker under conditions of high incentive rated the speech somewhat more unfavorably than subjects administering negative feedback under conditions of low incentive. In Experiment II this same effect was observed in belief-consistent conditions while a self-perception effect occurred in belief-inconsistent conditions.

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APPENDICES

APPENDIX A

PRETEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I AND II

APPENDIX A

PRETEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I AND II

OPINION PROFILE

Name_____ Student Number_____

Instructor_____ Course_____

As you may know, students in Communication 100 will be engaging in the analysis of a significant social problem. The purpose of this survey is to solicit your opinions on a variety of current issues--campus and national--which may serve as the foci of their problem analysis. On each of the following pages you will find a number of issues each followed by a series of descriptive scales. For example, here is an item like those you will see:

The United States should withdraw from the United Nations.

Bad_____:_____:_____:_____:_____:_____:_____Good

Your job is to place a check-mark (X) above the line that best indicates your judgment about the proposition. For example, if you feel that U.S. withdrawal would be very bad, you would check as follows:

Bad__X__:_____:_____:_____:_____:_____:_____Good

If you feel neutral or indifferent about the proposition, or if you feel that the scale is irrelevant to the proposition, you would check as follows:

Bad_____:_____:_____:__X__:_____:_____:_____Good

Remember: Never put more than one check-mark on a single scale and be sure that each check is in the middle of the line, not on the boundries.

ALL SCALES SHOULD BE CHECKED--DO NOT OMIT ANY

WORK RAPIDLY--RECORD FIRST IMPRESSIONS--DO NOT CHANGE MARKS

Draft deferments should be eliminated for college students.

Good_____:_____:_____:_____:_____:_____:_____Bad

Unfair_____:_____:_____:_____:_____:_____:_____Fair

Worthless_____:_____:_____:_____:_____:_____:_____Valuable

Pleasant_____:_____:_____:_____:_____:_____:_____Unpleasant

All universities and colleges should establish Black Studies programs.

Unpleasant_____:_____:_____:_____:_____:_____:_____Pleasant

Bad_____:_____:_____:_____:_____:_____:_____Good

Fair_____:_____:_____:_____:_____:_____:_____Unfair

Valuable_____:_____:_____:_____:_____:_____:_____Worthless

All students should be required to live on campus during their college attendance.

Valuable_____:_____:_____:_____:_____:_____:_____Worthless

Good_____:_____:_____:_____:_____:_____:_____Bad

Unfair_____:_____:_____:_____:_____:_____:_____Fair

Pleasant_____:_____:_____:_____:_____:_____:_____Unpleasant

Summer school students shoud pay higher tuition than those enrolled during the regular academic year.

Good_____:_____:_____:_____:_____:_____:_____Bad

Worthless_____:_____:_____:_____:_____:_____:_____Valuable

Pleasant_____:_____:_____:_____:_____:_____:_____Unpleasant

Unfair_____:_____:_____:_____:_____:_____:_____Fair

The use and possession of cigarettes should be made illegal.

Good_____:_____:_____:_____:_____:_____:_____Bad

Worthless_____:_____:_____:_____:_____:_____:_____Valuable

Unpleasant_____:_____:_____:_____:_____:_____:_____Pleasant

Fair_____:_____:_____:_____:_____:_____:_____Unfair

Military activities in South Viet Nam should be significantly increased.

Good_____:_____:_____:_____:_____:_____:_____Bad

Worthless_____:_____:_____:_____:_____:_____:_____Valuable

Pleasant_____:_____:_____:_____:_____:_____:_____Unpleasant

Unfair_____:_____:_____:_____:_____:_____:_____Fair

Early psychological testing should be used to identify children with criminal potential.

Valuable_____:_____:_____:_____:_____:_____:_____Worthless

Good_____:_____:_____:_____:_____:_____:_____Bad

Unfair_____:_____:_____:_____:_____:_____:_____Fair

Pleasant_____:_____:_____:_____:_____:_____:_____Unpleasant

APPENDIX B

EXPERIMENTAL SPEECH

EXPERIMENT I

APPENDIX B

EXPERIMENTAL SPEECH

EXPERIMENT I

One of the great puzzles of America is this: why is there so much crime? Year after year, the problem keeps spiraling. Violence is spreading. Terror strikes in the suburbs as well as in the slums. People are being slain, robbed, beaten, slashed, vandalized by youths and adults, white and black. Many offenses are marked by a sinister senselessness. Latest figures of the Federal Bureau of Investigation showed major crime increasing at a rate of 11 per cent last year compared with 1968. The overall rate of rise for violent crimes--murder, rape, robbery, aggravated assault--was 12 per cent. Street robbery was up 18 per cent; residential robbery, 22 per cent.

Alarm is nationwide. A symbol of the crime crisis is Washington, D.C., of which the Senate Majority Leader, Mike Mansfield of Montana, said recently:

> It is a capital blanketed in fear. Fear stalks the streets. It seeps into office and home. It afflicts rich and poor. . . . It spreads and will continue to spread into what were supposed to be the "safe" suburbs. . . . People flee the streets at dark and, more and more, even in daylight.

The situation in many other cities, the FBI's uniform crime reports indicate, is as menacing as it is in the nation's capital--or worse.

It is clear that this drastic situation needs drastic answers. The report of the National Commission on the Cause and Prevention of Violence suggests that the key step to be taken in the prevention of crime is the eradication of ghetto poverty. While we can all agree that this is an admirable long-range goal, given the Vietnam War, it is unlikely that this will occur in the near future. It is clear that a more immediate, direct, and effective way of attacking the problem is needed.

Dr. Arnold Hutschnecker, a new York physician and psychotherapist, has proposed such a plan--the mass administration of psychological tests to detect children with criminal potential. This plan attacks the problem at its very origin, by focusing on the criminal mind of the child. This would mean detecting abnormal personality structure early enough so that psychotherapy could be used to prevent the child from becoming a full-fledged delinquent or adult criminal.

More specifically, Dr. Hutschnecker's plan calls for every child between the ages of six and eight to take a battery of psychological tests. These tests will be designed to detect mental disturbance or a tendency for antisocial behavior. The youngest such children would be helped in federally supported day-care centers; older

children would attend after-school clinics and receive guidance counseling to direct them into more constructive pursuits. "The more disturbed, the more angry, rebellious, undisciplined and disruptive boys will be given aptitude tests to determine areas of interest which should be carefully encouraged." The doctor's final recommendation is the establishment of camps for incorrigible teen-age boys. Hutschnecker says that "For the severely disturbed, the young hardcore criminal, there may be a need to establish camps with group activities under the guidance of counselors, under the supervision of psychologists, who have empathy (most important) but also firmness."

The main problem is devising tests than can be given on a massive scale. A conventional battery of personality tests, including the Rorschach inkblot test, takes several hours and can cost as much as $150, obviously making them impractical. However, Dr. Robert Hartman of the University of Mexico has devised a "value profile" which he believes can accurately detect antisocial tendencies by a child's reactions to a set of eighteen pictures. The test can be given in a few minutes and the results analyzed by a computer. The total child population could be tested in two or three months.

Many experts on child psychology are in favor of early psychological testing to identify children with criminal potential. For example, Dr. Louise Bates Ames, associate director of the Gesell Institute of Child

Development in New Haven, believes that early testing is a good idea. She states that "We've got to start trying to predict delinquent behavior. This is one of the few chances we have to prevent it."

In conclusion, crime is one of the most serious problems that faces America today. We need an immediate, direct, and effective way of attacking it. Therefore, early, psychological testing should be used to identify children with criminal potential. After all, we vaccinate children to prevent physical disease. Why not provide psychological tests and treatment to prevent the problem of crime?

APPENDIX C

POSTTEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I AND II

APPENDIX C

POSTTEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I AND II

Name_____ Student Number_____

Now that you have heard the speech, we would like for you to react to it on several dimensions that are relevant to a communication transaction. If you have any questions about the following procedures, feel free to ask the person in charge of obtaining your reaction.

Part I

We would like for you to rate the speech you have just heard. There are four categories; each one is accompanied by a brief statement illustrating the considerations you should weigh in reacting to it.

CONTENT-ANALYSIS

This category refers to the topic, its treatment by the speaker, the arrangement of ideas and adaptation to the audience.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

DELIVERY

This category refers to the poise of the speaker, his awareness of the audience, articulation, pronunciation and fluency.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

LANGUAGE

This category refers to clear and vivid, accurate but varied standard of usage in a conversational manner.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

OVERALL EFFECTIVENESS

This category refers to your general reaction to the total speech.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

Part II

In this section we would like to know how you feel toward the speaker you have just heard.

THE SPEAKER YOU HAVE JUST HEARD

_____Very Aggression

_____Quite Aggressive

_____Slightly Aggressive

_____Neutral

_____Slightly Meek

_____Quite Meek

_____Very Meek

THE SPEAKER YOU HAVE JUST HEARD

_____Very Skilled

_____Quite Skilled

_____Slightly Skilled

_____Neutral

_____Slightly Unskilled

_____Quite Unskilled

_____Very Unskilled

THE SPEAKER YOU HAVE JUST HEARD

_____Very Unqualified

_____Quite Unqualified

_____Slightly Unqualified

_____Neutral

_____Slightly Qualified

_____Quite Qualified

_____Very Qualified

THE SPEAKER YOU HAVE JUST HEARD

_____Very Inexperienced

_____Quite Inexperienced

_____Slightly Inexperienced

_____Neutral

_____Slightly Experienced

_____Quite Experienced

_____Very Experienced

THE SPEAKER YOU HAVE JUST HEARD

_____Very Informed

_____Quite Informed

_____Slightly Informed

_____Neutral

_____Slightly Uninformed

_____Quite Uninformed

_____Very Uninformed

THE SPEAKER YOU HAVE JUST HEARD

_____Very Kind

_____Quite Kind

_____Slightly Kind

_____Neutral

_____Slightly Cruel

_____Quite Cruel

_____Very Cruel

THE SPEAKER YOU HAVE JUST HEARD

_____Very Dishonest

_____Quite Dishonest

_____Slightly Dishonest

_____Neutral

_____Slightly Honest

_____Quite Honest

_____Very Honest

THE SPEAKER YOU HAVE JUST HEARD

_____Very Bold

_____Quite Bold

_____Slightly Bold

_____Neutral

_____Slightly Timid

_____Quite Timid

_____Very Timid

THE SPEAKER YOU HAVE JUST HEARD

_____Very Tired

_____Quite Tired

_____Slightly Tired

_____Neutral

_____Slightly Energetic

_____Quite Energetic

_____Very Energetic

THE SPEAKER YOU HAVE JUST HEARD

_____Very Friendly

_____Quite Friendly

_____Slightly Friendly

_____Neutral

_____Slightly Unfriendly

_____Quite Unfriendly

_____Very Unfriendly

THE SPEAKER YOU HAVE JUST HEARD

_____Very Active

_____Quite Active

_____Slightly Active

_____Neutral

_____Slightly Passive

_____Quite Passive

_____Very Passive

THE SPEAKER YOU HAVE JUST HEARD

_____Very Just

_____Quite Just

_____Slightly Just

_____Neutral

_____Slightly Unjust

_____Quite Unjust

_____Very Unjust

Part III

In this section we would like to know how you feel toward the issue of requiring children to undergo early psychological testing in order to identify those with criminal potential.

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Valuable

_____Quite Valuable

_____Slightly Valuable

_____Neutral

_____Slightly Worthless

_____Quite Worthless

_____Very Worthless

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Good

_____Quite Good

_____Slightly Good

_____Neutral

_____Slightly Bad

_____Quite Bad

_____Very Bad

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Unfair

_____Quite Unfair

_____Slightly Unfair

_____Neutral

_____Slightly Fair

_____Quite Fair

_____Very Fair

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Pleasant

_____Quite Pleasant

_____Slightly Pleasant

_____Neutral

_____Slightly Unpleasant

_____Quite Unpleasant

_____Very Unpleasant

Part IV

In this final section we would like to have your evaluation of this method of securing confederates for studies such as the one you just participated in.

HOW ADEQUATE WAS THE INCENTIVE FOR YOU TO ACT AS A CONFEDERATE IN THIS STUDY?

_____Very Adequate

_____Quite Adequate

_____Slightly Adequate

_____Neutral

_____Slightly Inadequate

_____Quite Inadequate

_____Very Inadequate

IN YOUR ROLE AS A CONFEDERATE IN THIS STUDY, WHAT TYPE OF FEEDBACK WERE YOU ASKED TO ADMINISTER TO THE SPEAKER?

_____I was instructed to administer positive (favorable) feedback to the speaker.

_____I was instructed to administer negative (unfavorable) feedback to the speaker.

_____I don't know what kind of feedback I was instructed to administer to the speaker.

APPENDIX D

CONTROL POSTTEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I

APPENDIX D

CONTROL POSTTEST ATTITUDE QUESTIONNAIRE

EXPERIMENT I

Name_____ Student Number_____

The Department of Communication at Michigan State University is attempting to construct a measuring instrument that will validly rate several dimensions of a communication transaction. On the following pages we are asking you to make a number of different kinds of judgments about the speech and the speaker you have just heard.

Part I

We would like for you to rate the speech you have just heard. There are four categories; each one is accompanied by a brief statement illustrating the considerations you should weigh in reacting to it.

CONTENT-ANALYSIS

This category refers to the topic, its treatment by the speaker, the arrangement of ideas and adaptation to the audience.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

DELIVERY

This category refers to the poise of the speaker, his awareness of the audience, articulation, pronunciation and fluency.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

LANGUAGE

This category refers to clear and vivid, accurate but varied standard of usage in a conversational manner.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

OVERALL EFFECTIVENESS

This category refers to your general reaction to the total speech.

_____Superior

_____Excellent

_____Good

_____Average

_____Fair

_____Poor

_____Very Poor

Part II

In this section we would like to know how you feel toward the speaker you have just heard.

THE SPEAKER YOU HAVE JUST HEARD

_____Very Aggressive

_____Quite Aggressive

_____Slightly Aggressive

_____Neutral

_____Slightly Meek

_____Quite Meek

_____Very Meek

THE SPEAKER YOU HAVE JUST HEARD

_____Very Skilled

_____Quite Skilled

_____Slightly Skilled

_____Neutral

_____Slightly Unskilled

_____Quite Unskilled

_____Very Unskilled

THE SPEAKER YOU HAVE JUST HEARD

_____Very Unqualified

_____Quite Unqualified

_____Slightly Unqualified

_____Neutral

_____Slightly Qualified

_____Quite Qualified

_____Very Qualified

THE SPEAKER YOU HAVE JUST HEARD

_____Very Inexperienced

_____Quite Inexperienced

_____Slightly Inexperienced

_____Neutral

_____Slightly Experienced

_____Quite Experienced

_____Very Experienced

THE SPEAKER YOU HAVE JUST HEARD

_____Very Informed

_____Quite Informed

_____Slightly Informed

_____Neutral

_____Slightly Uninformed

_____Quite Uninformed

_____Very Uninformed

THE SPEAKER YOU HAVE JUST HEARD

_____Very Kind

_____Quite Kind

_____Slightly Kind

_____Neutral

_____Slightly Cruel

_____Quite Cruel

_____Very Cruel

THE SPEAKER YOU HAVE JUST HEARD

_____Very Dishonest

_____Quite Dishonest

_____Slightly Dishonest

_____Neutral

_____Slightly Honest

_____Quite Honest

_____Very Honest

THE SPEAKER YOU HAVE JUST HEARD

_____Very Bold

_____Quite Bold

_____Slightly Bold

_____Neutral

_____Slightly Timid

_____Quite Timid

_____Very Timid

THE SPEAKER YOU HAVE JUST HEARD

_____Very Tired

_____Quite Tired

_____Slightly Tired

_____Neutral

_____Slightly Energetic

_____Quite Energetic

_____Very Energetic

THE SPEAKER YOU HAVE JUST HEARD

_____Very Friendly

_____Quite Friendly

_____Slightly Friendly

_____Neutral

_____Slightly Unfriendly

_____Quite Unfriendly

_____Very Unfriendly

THE SPEAKER YOU HAVE JUST HEARD

_____Very Active

_____Quite Active

_____Slightly Active

_____Neutral

_____Slightly Passive

_____Quite Passive

_____Very Passive

THE SPEAKER YOU HAVE JUST HEARD

_____Very Just

_____Quite Just

_____Slightly Just

_____Neutral

_____Slightly Unjust

_____Quite Unjust

_____Very Unjust

Part III

In this section we would like to know how you feel toward the issue of requiring children to undergo early psychological testing in order to identify those with criminal potential.

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Valuable

_____Quite Valuable

_____Slightly Valuable

_____Neutral

_____Slightly Worthless

_____Quite Worthless

_____Very Worthless

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Good

_____Quite Good

_____Slightly Good

_____Neutral

_____Slightly Bad

_____Quite Bad

_____Very Bad

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Unfair

_____Quite Unfair

_____Slightly Unfair

_____Neutral

_____Slightly Fair

_____Quite Fair

_____Very Fair

EARLY PSYCHOLOGICAL TESTING SHOULD BE USED TO IDENTIFY CHILDREN WITH CRIMINAL POTENTIAL

_____Very Pleasant

_____Quite Pleasant

_____Slightly Pleasant

_____Neutral

_____Slightly Unpleasant

_____Quite Unpleasant

_____Very Unpleasant

APPENDIX E

EXPERIMENTAL SPEECHES

EXPERIMENT II

APPENDIX E

EXPERIMENTAL SPEECHES

EXPERIMENT II

High Quality Experimental Speech

The rising tide of crime is one of our most crucial problems. In a time of increasing affluence, of an increasing standard of living, many find the quality of their lives actually decreasing--decreasing because of the constant fear of crime and brutal senseless violence.

We've always had crime, of course, but lately it has increased at a faster and faster rate. Furthermore, violent crimes are more and more marked by mindless cruelty. It is a problem we can not ignore.

Latest FBI figures show major crimes increased 11 per cent last year. The overall rate of increase for violent crimes--murder, rape, robbery, aggravated assault was 12 per cent. Street robbery alone was up 18 per cent. It is not a cliche to say that the streets are not safe. Residential robbery was up 22 per cent. People are no longer safe in their homes.

Washington, D.C. has become a monstrous symbol and example of this problem. As Senate Majority Leaker Mike Mansfield recently said:

> It is a capital blanketed in fear. Fear stalks the streets. It seeps into office and home. It afflicts rich and poor. . . . It spreads and will continue to spread into what were supposed to be the "safe" suburbs. . . . People flee the streets at dark, and, more and more, even in daylight.

Of course, this city is by no means unique. FBI Uniform Crime Reports show that many more of our cities are just as menaced by crime--some are even worse.

This drastic situation calls for imaginative, creative answers. The report of the National Commission on the Cause and Prevention of Violence suggests that the key step to be taken in the prevention of crime is the eradication of ghetto poverty. We can all agree that the eradication of poverty is both a necessary and admirable long-range goal. Unfortunately, given the Vietnam War, it is just too long-range. We cannot tolerate more crime nor can we increase the penalties for crime. Harsher penalties merely hammer at the external sores--they do not deter crime. What we need is a direct, immediate, and effective way of attacking the problem.

Dr. Arnold Hutschnecker, a New York physician and psychotherapist has proposed a plan that meets this need. He recommends that we administer psychological tests to detect those children whose hereditary and environmental conditions have interacted to produce anti-social, violent

tendencies. This solution approaches the problem as close to its origin as possible--by focusing on the child's mind. This approach would allow us to distinguish those children whose personalities have been crippled by early experiences --at a time when psychotherapy could have some hope of real cure.

Specifically, Dr. Hutschnecker's plan calls for every child between the ages of six and eight to take a battery of psychological tests. These tests, designed to detect mental disturbance, or a propensity for anti-social behavior, would provide vital information--not to ostracize the child--but to help him. Very young children might receive special help in federally supported day-care centers. Older children could attend after school clinics that would emphasize guidance counseling. To quote Dr. Hutschnecker:

> The more disturbed, the more angry, rebellious, undisciplined and disruptive boys will be given aptitude tests to determine areas of interest which should be carefully encouraged.

The doctor also recognizes that the most incorrigible teenage boys may need a mixture of love and discipline they have never found at home--a control impossible while the child remains in his present environment. Hutschnecker suggests:

> For the severely disturbed, the young hard-core criminal, there may be a need to establish centers with group activities under the guidance of counselors, under the supervision of psychologists, who have empathy, but also firmness.

The main problem is devising tests that can be given on a massive scale. Dr. Robert Hartman, of the University of Mexico has devised a "value profile" which is designed to accurately detect anti-social tendencies by a child's reactions to a set of 18 pictures. The test can be given in a few minutes, and the results analyzed by a computer--thus eliminating human error. Every child could be tested in two or three months.

Many experts on child psychology favor early psychological testing. Parents may not notice or care about unusual tendencies--those who do care may be hesitant to reach out to community agencies for help. Dr. Louise Ames, associate director of the Gesell Institute of Child Development points out why testing is essential. She states: "We've got to start trying to predict delinquent behavior. This is one of the few chances we have to prevent it."

In conclusion, we can all agree that crime is one of our most serious problems. We need an immediate, direct, and effective way to stop it before it starts. Therefore, early psychological testing designed to identify children with criminal potential, followed by carefully designed programs should begin soon. After all, we vaccinate children to prevent physical disease. Why not provide psychological tests and treatment to prevent the problem of crime?

Low Quality Experimental Speech

Year after year, the problem gets worse. Street robbery was up 18 per cent; 'ah' residential robbery, 22 per cent. The report of the National Commission on the Cause . . . Cause and Prevention of Violence said that the main thing to be done is doing 'ah' away with poverty. Alarm about crime is nationwide. Violent crimes--murder, rape, robbery, aggravated . . . aggravated assault--are up 12 per cent. The FBI says that major crime is up 'ah' from 11 per cent last year compared with 1968. People are being killed and . . . and attacked by black and white youths and black and white adults. The situation 'ah' needs important answers. Because of the Vietnam war, in the near future, we won't . . . won't be able to get rid of poverty. The FBI crime reports say that crime 'ah' is as bad in other cities as it is in Washington, D.C.--or . . . or worse. A more effective way of getting at crime is needed. Many of these 'ah' crimes are dumb. Why is there so much crime in America? Violence is spreading . . . spreading. Senator Mike Mansfield recently said this about Washington, D.C.:

> It 'ah' is a capital blanketed in fear. Fear stalks the streets. It sweeps into office . . . office and home. It afflicts rich and poor. . . . It spreads and will continue to spread 'ah' into what were supposed to be the "safe" suburbs. . . . People flee the streets at . . . at dark and, more and more, even in the daylight.

The suburbs are like the 'ah' slums insofar as crime is concerned.

A New York doctor and psychotherapist, Dr. Arnold . . . Arnold Hutschnecker, thinks that psychological tests should be administered on a massive scale to discover 'ah' children with criminal tendencies. This means that counseling could be used on children who . . . who are found to have a problem to prevent them from becoming a full-fledged delinquent 'ah' or adult criminal. More specifically, Dr. Hutschnecker wants every child between the age of . . . of six and eight to take a battery of psychological tests. The younger problem children 'ah' would be put in little schools run by the government; older children would go to clinics after school and receive . . . receive counseling. To quote Dr. Hutschnecker:

> The more disturbed, the more angry, rebellious, undisciplined and 'ah' disruptive boys will be given aptitude tests to determine areas of interest which should . . . should be carefully encouraged.

Dr. Louise Bates Ames, associate director of the Gesell Institute of 'ah' Child Development in New Haven, says that early testing is a good idea. She . . . She made the following statement: "We've got to start trying to predict delinquent behavior. This 'ah' is one of the

few chances we have to prevent it." Many child psycholgy . . . psychology experts favor the early discovery of problem children through the use of tests. The 'ah' hard part about this solution is making tests that can be given on a massive scale.

The . . . The doctor's last recommendation is the starting of camps for teen-age boys that are 'ah' hard to get along with. In Hutschnecker's own words:

> For the severely disturbed, the young hard-core criminal . . . criminal, there may be a need to establish camps with group activities under the guidance 'ah' of counselors, under the supervision of psychologists, who have empathy (most important) but also firmness . . . firmness.

This plan gets at the heart of the problem as it goes to the 'ah' root, by focusing on the criminal mind of the child. The tests will be built . . . built to find out about mental disturbance or a tendency to anti-social behavior. Personality 'ah' tests, including the Rorschach inkblot test, takes several hours and can cost as much . . . much as $150, obviously not making them much good. Dr. Robert Hartman of the University of Mexico has a 'ah' "value profile" which he says can accurately find out about warped childhood outlooks by . . . by observing reactions to a set of 18 pictures. The test can be given in 'ah' few minutes and the results completed by a computer. Every child could be . . . be tested in a couple or a few months.

After all, we vaccinate kids against disease. 'ah' Why not give tests and treatment to prevent crime problems? In conclusion, crime is . . . is one of the biggest problems in America today. We need an effective way of 'ah' getting at it. Therefore, . . . Therefore, early psychological testing should be used to identify children with criminal tendencies.