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MAND AND TACT ATTRIBUTION AS A PRODUCT OF ANTECEDENT AND CONSEQUENCE INTERACTION IN A PERSUASIVE COMMUNICATION SETTING

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JAMES ALLEN BETHEL

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APPROVED BY

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DISSERTATION

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This study sought to resolve the incentive theory-dissonance theory controversy by way of a new and extended operationalization of Bem's (1965) concepts of manding and tacting behavior as they relate to the attitude attribution process.

A three-factor interaction was hypothesized on the basis of a review of the literature in the counter-attitudinal advocacy paradigm. The hypothesis stated:

> There will be an interaction effect upon subjects' attitude attributions when exposed to a message under differing environmental conditions, as indicated by two levels of antecedent context, consequence awareness, and consequence valence.

Manipulations were carried out in a Bem-type simulation. Experimental procedures produced an n-size of 100 subjects, randomly selected and assigned to 10 conditions: Antecedent (tact/mand), Awareness (Unforeseen/Foreseen), Valence (positive/negative). A two-level (tact/mand) no-consequences control condition was also utilized.

The 3-way ANOVA failed to confirm the hypothesis in an attribution-of-attitude-consistency-to-another condition, but sustained the predicted three-factor interaction in two instances of observers' own attitude responses. Data results provided clarification of the incentive-dissonance controversy and generated 12 informally stated hypotheses.

A modification of the Bem theory was advanced to the effect that self-attribution and other-attribution processes are functionally different, due to the presence in the former and absence in the latter of a subjective preoccupation with autonomy derived from the illusion of freedom.

Finally, the ability of either a "biased scanning," or "dissonance" account, as hypothetical internal states, was challenged as insufficient to subsume the results of the study.

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INTRODUCTION

In 1967 Bem expanded his theory of self-perception (Bem, 1965) and offered a radical behaviorist alternative to the dissonance theory (Festinger, 1957) of attitude change. The Bem alternative (Bem, 1967b) was an attempt to move the discussion of attitudes from one concerned with hypothetical internal states that might dictate behavior, to one concerned with observable behavior that demonstrably dictated attitudes. The Bem alternative has not ended discussion of hypothetical internal states, however, due largely to a continuing controversy between incentive theorists and followers of the dissonance position.

The controversy continues today over whether attitudes are "changed" because of "biased scanning" processes (incentive theory) or because of "the free choice/dissonance" effect (dissonance theory). Thus the Bem alternative has not been altogether successful in its attempt to put an end to the use of hypothetical internal-state accounts for attitude change phenomena.

This dissertation provides insights into a resolution of the incentive theory-dissonance theory controversy by way of an exploration of Bem's theory of self-perception (Bem, 1965, 1966, 1967a, 1967b, 1968a, 1968b; Bandler, Madaras and Bem, 1968; Bem and McConnell, 1970). The

study deals with a new operationalization of Bem's concepts of manding and tacting behavior as they relate to the attitude attribution process.

The dissertation is presented in five chapters. Chapter I is a rationale for the study and includes a review of pertinent literature and a hypothesis. Chapter II outlines the design utilized in the experimental investigation. Chapter III presents the results of the investigation. Chapter IV discusses the results. Chapter V summarizes the study and terminates the dissertation with a concluding essay.

CHAPTER I

RATIONALE AND REVIEW OF THE LITERATURE

The first issue posed in the present study is that of a rationale for a concern by the communication scholar with research in attribution theory — an area traditionally reserved to the social psychologist.

Specifically regarding the concerns of communication research, Berger (1973) provides insight, noting:

> Of special significance to the communication researcher is the fact that the communication behavior of both one's self and others is a subset of events for which persons generate attributions (p. 280).

The specific formulation upon which the present study is focused, deals with a unique perspective of the attitude-behavior relationship. Bem has done extensive work in the area of a behavior-to-attitude linkage, reversing the traditional attitude-to-behavior conceptualization. Bem (1968a) emphasizes the communication process in a discussion of the behavior-attitudes issue:

> We tentatively conclude that the observed weak causal link between antecedent attitudes and consequent behavior is produced by the acquired self-directive function of attitudinal self description . . . The evidence, we believe, is clear in supporting our theory of self-description as a

> mechanism for producing the behavior-to-attitude causal sequence. We are less confident of our understanding of the attitude-to-behavior sequence. In short, we can be certain that we like brown bread because we eat it. It may also be that we eat brown bread because we like it (p. 214).

The Bem analysis has been applied primarily to results which support dissonance theory, and as such provides an alternative view somewhat limited to that paradigm. Bem has had little to say about experimental situations wherein attitude change occurs in accord with incentive theory. The dissonance predictions and findings have often been counter to that of the incentive theorists (Kiesler, Collins, and Miller, 1969), yet there is empirical support for both perspectives. Much research has been conducted in an effort to clarify the conflict with little success. Obvious benefit would accrue from a reconciliation of these conflicting positions within a single theoretic paradigm.

Bem (1965, 1967) has suggested that his self-perception theory might be extendable to such a reconciliation. Such an attempt has not yet been undertaken, however. The present study proposes to take a first step toward this end.

Extending Bem's theory will require a determination of the nature of mand and tact attribution processes — key variables in the Bem position. Consequently, we will begin this chapter with a discussion of the Bem perspective. Our next consideration will be that of the dissonance-incentive controversy. The final consideration will be the presentation of a rationale and hypothesis, from which to direct the balance of the dissertation.

THE BEM PERSPECTIVE

Our discussion of the Bem perspective will take four parts. First, we will consider Bem's theory of self-perception as a unique type of attribution theory. Second, we will provide an explanation of the key variables involved in the Bem position — mands and tacts. Bem's theory as it relates to credibility and persuasion is the concern of the third part, and will be presented within the context of a brief discussion of some of the empirical support for his position. The final part summarizes the Bem position in preparation for the dissonance-incentive controversy discussion.

Self-Perception and Attribution

The issue to which Bem addresses his theory of self-perception is that of inferring a person's "own true attitude" from his behavior. This perspective holds that one judges, imputes, attributes, or arrives at a conclusion about another person's attitude on the basis of (1) that person's behavior (primarily verbal self-descriptions), and (2) the stimulus conditions (context) in which that behavior occurs. In the same way, Bem argues, a person becomes aware of his own attitude through a process involving observation of his own behavior and the conditions under which it occurs.

Kelley (1967) notes that the Bem self-perception theory seems to contradict our everyday experiences that we have direct and private access to our own attitudes. He cites Heider's (1958) suggestion that such a contradiction may be only an artifact of the attribution process:

> Attributions may not be experienced as interpretations at all, but rather as intrinsic to the original stimuli (Heider, 1958: 256).

Bem utilizes this same argument in the formation of his theoretic perspective, but does so from the position of a radical behaviorist.

Bem's position is rooted in the historical perspective reflected in the works of Mead (1934) and Skinner (1953, 1957, 1972). This perspective holds that self-awareness is a product of social interaction.

Skinner has elaborated this concept within a framework of behaviorism. Skinner's (1972) recent and, perhaps, most controversial statements demonstrate the issue:

> A person's behavior is determined by a genetic endowment traceable to the evolutionary history of the species and by the environmental circumstances to which as an individual he has been exposed . . . As we learn more about the effects of the environment, we have less reason to attribute any part of human behavior to an autonomous controlling agent (p. 101).

> A child is born a member of the human species, with a genetic endowment showing many idiosyncratic features, and he begins at once to acquire a repertoire of behavior under the contingencies of re-enforcement to which he is exposed as an individual. Most of these contingencies are arranged by other people (p. 127).

> We must all begin as babies, and no degree of self-determination, self-sufficiency, or self-reliance will make us individuals in any sense beyond that of single members of the human species (p. 124).

> In general, the verbal community cannot arrange the subtle contingencies necessary to teach fine distinctions among stimuli which are inaccessible to it. It must rely on visible evidence of the presence or absence of a private condition. A parent may teach a child to say "I'm hungry," not because he feels what the child is feeling, but because he sees him eating ravenously or behaving in some other way related to deprivation of, or re-enforcement with food. The

> evidence may be good, and the child may learn to "describe his feelings" with some accuracy, but this by no means is always the case, because many feelings have inconspicuous behavorial manifestations. As a result, the language of emotion and self-awareness is not precise. We tend to describe our emotions with terms which have been learned in connection with other kinds of things; almost all the words we use were originally metaphors (p. 106).

The basic issue here is that one is said to learn differential responses to one's own behavior and its controlling variables. The key-word here is "learn." That is, one is taught self-awareness by one's socializing community; it is not an inherent state of internal cognitive affairs.

Bem argues that self-descriptive verbal statements are the most common responses comprising self-awareness. Further, he asserts that the methods utilized by the socializing community to teach a person how to describe his own internal state does not differ fundamentally from the methods used to teach him to describe other events in his environment. There are problems, however, in teaching self-awareness. Bem (1965) notes:

> The community . . . faces a unique problem in training the individual to make statements describing internal stimuli to which only he has direct access, for the conditioning of the appropriate verbal responses must necessarily be based upon the public stimuli and responses that often accompany or resemble these private events (p.199).

Bem asserts that the resulting self-knowledge is inescapably inadequate:

> In our well-fed society, for example, it is not uncommon to find a man consulting his wrist watch to answer the question, "Are you hungry?" (p. 199).

It is in this sense then that Bem's theory of self-per-

ception stands as a unique type of attribution theory. In the original formulation by Heider (1958), attribution is said to concern "the process by which an individual interprets events as being caused by particular parts of the . . . environment" (p. 297). An attitude (one's own or that of another) may be viewed from this position as simply another part of the environment. Kelley (1967) describes the process to which Heider refers:

> In the basic case, where the person is concerned with the dispositional properties of his surrounding environment the choice is between external and internal (self) attribution . . . The inference as to where to locate the dispositional properties responsible for the (specific) effect is made by interpreting raw data in the context of subsidiary information . . . (p. 194).

Thus the assertion, "How can I tell what I think until I see what I say?" may be quite appropriate if, as Bem argues, this attribution-checking process involves verbal responses.

Mands Versus Tacts

The keys to the attributional process, from Bem's perspective, are the tact and the mand. The distinctions are those of Skinner (1953, 1957). A tact is a verbal response under discriminative control of some portion of the environment. It is a response which, from the perspective of an observer, is non-contingent and related to private stimuli. These verbal responses are comments about the world, epitomized by naming and descriptive statements. Hence, from an observer's point of view, a tact reflects an actor's true attitude, belief or evaluation of an environmental object or event.

A mand is a verbal response under the control of some specific

reinforcing contingency. It is a response, which from the perspective of an observer, is directly related to some specific public condition. Mands are comments about the reinforcing properties existing within a social situation at a given time. They are viewed as relevant to the specific needs of the actor, based on how we perceive him and the context of his behavior. A mand tells us little about the "true" attitude of a person, but rather constitutes an attribution to the reward/punishment contingencies inherent in that person's response situation.

While the mand/tact distinction is quite subtle, Bem's (1965) discussion of tacting and manding behavior is more explicit:

> A speaker is trained to describe or "tact" his environment for the benefit of his listeners who provide genera lized social reinforcement in return. An individual's belief and attitude statements are often tacts of stimuli arising from himself (e.g., "I am hungry"), his behavior (e.g., "I am generous"), or the effects of stimuli upon him (e.g, "It gives me goosepimples"). Attitude statements in particular have the properties of tacts of the reinforcing effects of a stimulus situation on the individual (e.g., "I detest rainy weather," "I'd walk a mile for a Camel") . . . A speaker who emits a mand is asking for, requesting, or "manding" a particular reinforcer (e.g., demands, commands). Only a characteristic consequence will serve to reinforce the response, and often this reinforcer is specified explicitly by the response (e.g., "Please pass the milk") (p.200).

Mands need not be verbal in the usual sense. That is, the characteristic consequence to which the mand is addressed may not be explicit, but implied by other contextual stimuli. In other words, smacking one's lips in the presence of the milk may be functionally equivalent to the vocal request. Further, it is apparent that mands may be disguised in the form of tacts. "A lie," Bem (1965) notes, "is often

a mand for escape from aversive consequences" (p. 201). Any particular response, then, contains either mand, tact, or some combination of mand/tact characteristics. A participant in an interaction must determine which component governs the transaction before he can attribute "truth" to another's statement or behavior.

Mands, Tacts, Credibility and Self-Persuasion

It is generally accepted that persuasiveness is related to the credibility of the speaker. Bem (1965) suggests that credibility is directly related to manding and tacting behavior:

> A communicator is credible to the extent that his communication is discriminated as a set of tacts, and his credibility is vitiated to the extent that he appears to be manding in the form of disguised tacts (p. 201).

Bem utilizes this argument to form the basic conceptualization upon which his theory of self-perception is based:

> Not only is a credible communicator more likely to persuade his listeners, but to the extent that his verbal responses appear to be "pure" tacts, they will be judged, by definition, to be his own "true" beliefs and attitudes. (p. 201).

It is from this perspective that Bem offers evidence to support the logical extension of his argument.

The beliefs and attitudes of a communicator himself may be viewed as self-judgments based upon his own credibility as a communicator. Bem asserts that such statements will coincide with judgments of his beliefs and attitudes made by outside observers (the socializing community). The conceptual thesis is stated by Bem (1965) as follows:

> An individual's belief and attitude statements and the beliefs and attitudes that an outside observer would attribute to him are often functionally equivalent in that both sets of statements are "inferences" from the same evidence: The public events that the socializing community originally employed in training the individual to make such self-descriptive statements . . . The individual, in short, is regarded as an observer of his own behavior and its controlling variables; accordingly, his belief and attitude statements are viewed as "inferences" from his observations (p. 200).

Bem (1967) uses his self-perception theory to interpret the classical forced-compliance experiment of Festinger and Carlsmith (1959). In that experiment, subjects were asked to misrepresent to another (a confederate) that a dull task was interesting and enjoyable. Subjects were paid either $1 or $20 to participate in the experiment. Consistent with the cognitive dissonance argument of insufficient justification, subjects in the $1-condition were found subsequently to hold more favorable opinions of the "dull" task than those in the $20-condition.

As a test of his theoretic formulation, Bem (1965) simply informed a group of subjects about the conditions of the Festinger and Carlsmith experiment and asked them to predict the attitudes of the $1-and $20-experimental subjects. The results almost exactly paralleled those of the original manipulation. Bem's observer-subjects apparently concluded that the $20-inducement was the cause of the misrepresenting behavior and was therefore a mand. On the other hand, in the absence of the mand the behavior is taken as having a tact value representing the true opinion of the individual. Bem makes the

same attribution interpretation of the actual subjects in the Festinger and Carlsmith study. That is, when subjects were asked at the end of the experiment what their opinions were of the task, the subjects examined their recent experience, their behavior, and the conditions existing within the context of it, and inferred their opinion from the evidence, i.e., the presence or absence of mands. This attributional analysis, Bem (1967, 1970) argues, provides a clear alternative to the major variables involved in cognitive dissonance experiments:

> The self-perception theory asserts that subjects in dissonance experiments are themselves behaving just like hypothetical observers. They survey their own behavior of writing the essay (or speaking to the confederate) 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 essays (or statements to the confederate), whereas high-compensation subjects discard their behavior as a relevant guide to their "actual" attitudes and express the same attitude as the control subjects. This same kind of reasoning predicts the differential effects of other variables in cognitive dissonance experiments (e.g., justification and freedom of choice manipulations) (Bem, 1970:24).

One necessarily concludes from the logic of Bem's attribution analysis that any initial conflicting attitudes in the subject must somehow lose their saliency following behavior. Bem agrees with the implication. The behavior of an actor-subject constitutes incoming data, which serve to update his information on his attitudes replacing any prior information to the contrary (Bem, 1970:24). This state of affairs logically dictates that phenomenologically for the

actor-subject himself there is no actual attitude change. Hence in the simulation conditions utilized by Bem, pre-manipulation attitude information is irrelevent data. Bem (1970) notes:

> Insofar as the individual himself is concerned [as contrasted with the experimenter], his post-manipulation attitude is, in fact, the same attitude which motivated him to comply in the first place; phenomenologically there is no attitude "change" as such (p. 24, brackets mine).

Bem's critics have focused upon this methodological issue (Elms, 1967; Jones, et al., 1967; Mills, 1967; Piliavin, et al., 1969). In response, Bem (1970) has demonstrated that subjects in a typical forced-compliance experiment are not only unable to recall their premanipulation attitudes correctly, but that they actually perceive their postmanipulation attitudes to be identical to their premanipulation attitudes.

A Summary of the Self-Perception Theory Argument

The Bem self-perception perspective holds that attitude change in the counter-attitudinal-advocacy paradigm is change only from the point of view of the experimenter. A subject's attitude change score is self-descriptive, and as such is tied to the context in which the descriptive behavior occurs. That is, attitude change scores following counter-attitudinal behavior are said to reveal the extent to which a subject has attributed responsibility for his actions to the environment or to himself. To the extent that attribution is to self, the experimenter becomes aware of attitude "change." To the extent the subject attributes responsibility for his actions to the environment, the experimenter is aware of no such change.

A subject will attribute responsibility to himself — an attitude score consistent with his behavior — only under conditions amenable to tacting conclusions. When conditions are more amenable to manding conclusions, subjects will tend to attribute responsibility to the environment — revealing an attitude score which is not consistent with his behavior. It is in this way that attitude "change" is accounted for in the Bem self-perception analysis of the dissonance paradigm.

No attempt has yet been made to extend the Bem analysis to a reconciliation of the conflict between dissonance findings and those which support a reinforcement-incentive perspective. Since it is our purpose to begin that under-taking, a consideration of the dissonance-incentive theory controversy is now in order.

THE DISSONANCE-INCENTIVE THEORY CONTROVERSY

In the discussion of empirical research which follows, we assume (as does Bem) that the results of the studies are valid. What is sought in this portion of the review is some mechanism, consistent with the Bem perspective, which may reconcile the dissonance and incentive research findings. Consequently, our consideration of the dissonance-incentive controversy will be made with close attention devoted to the key variables utilized in the Bem paradigm — mands and tacts.

The development of this portion of the review will be historical in nature. It will begin with a consideration of the

initial controversy between incentive theory and the "non-obvious" assertions of dissonance theory. It will then turn to a concern for the limiting conditions of the research with a consideration of the choice and commitment variables, including a consideration of the developing controversy in light of Bem's position. Attention then will be devoted to the consequence variable and its role in the controversy. This discussion will conclude with the presentation of the formal research hypothesis.

Dissonance: The Non-Obvious Finding

The dissonance-incentive theory controversy may be said to have begun with the initial Festinger and Carlsmith (1959) study, described earlier. Janis (1959) proposed a theory of incentive effects with predictions opposite those of dissonance theory which was further elaborated by Janis and Gilmore (1965), Elms and Janis (1965), and Elms (1967). This theory suggests that incentive generates a "biased scanning" analysis of arguments which, in turn, leads to attitude change. An opposite effect was found in the Festinger and Carlsmith (1959) study. This is explained by Janis (1959) in terms of a negative incentive. That is, the $20-payment is said to have raised the suspicion of the subject and may have led him to believe he was being exploited — a suggestion quite similar to that of Rosenberg (1965), issued six years later.

The basic difference between the Janis and Festinger positions is one of emphasis. Kiesler, Collins, and Miller (1969)

note:

> Festinger says that the active process occurs in his $1-condition . . . Janis emphasizes the incentive value of the $20. According to incentive theory, if a very large reward generates negative affect, it will tend to interfere with acceptance of the conclusions advocated in the role playing performance; but if monetary reward elicits positive feelings of gratitude and satisfaction, he (Janis) would expect it to facilitate acceptance (pp.212-213).

A large amount of research was generated in response to the dissonance-incentive concflict opened up by Festinger and Carlsmith (1959). Much of this research has resulted in support for the low-incentive=attitude change (dissonance effect) finding (Cohen, Brehm and Fleming, 1958; Brehm and Cohen, 1962; Cohen, 1962).

The Effect of Choice and Commitment

Linder, Cooper and Jones (1967) and Jones and Gerard (1967) demonstrated the existence of a limiting condition upon dissonance-incentive findings by manipulating the freedom of subjects to participate in the experiment. Linder, et al., found that a dissonance effect (low incentive-attitude change) occurred when subjects were free to choose whether to participate or not. In a somewhat similar fashion, Jones and Gerard paid subjects differential amounts ($.50 and $2) to write counter-attitudinal essays. However, one group was paid before the request to write was made, while the other group was paid after the writing had actually begun. Findings demonstrated that the dissonance effect ($.50-condition=attitude change) occurred in the group paid before the request to write, while an incentive effect ($2-condition=attitude change) was manifested in the group paid after

writing had begun. Jones and Gerard interpret the incentive finding to be an instance of instrumental reward for the committed behavior rather than a direct incentive effect. Findings supportive of this same choice-by-incentive interaction have been provided by several studies (Davis and Jones, 1960; Brock, 1962; Cohen, Brehm and Latene, 1959; Freedman, 1963; Holmes and Strickland, 1970; Sherman, 1970).

Bem's Analysis of the Issues

Returning to the self-perception theory offered by Bem, he raises no issue with the dissonance methodology. Rather, he accepts the findings as valid and offers an alternative explanation. The key variables in his account, previously indicated, are those of the mand and the tact. That is, the $20-condition in the Festinger and Carlsmith (1959) experiment serves as a mand cue, while in the $1-condition this cue is, relatively speaking, absent. The subject is said to examine his own behavior, concluding in the $20-condition that his action was manding, i.e., tied to the $20-contingency. The subject in the $1-condition, conducting the same examination and finding no such cue, attributes the responsibility for his action to himself; hence, an attitude "change" is recorded for the low-incentive condition subject.

The same analysis is applicable to the Cohen (1962) dissonance study. Cohen's varying incentives ($.50 - $1 - $5 - $10) represent varying environmental contingencies antecedent to the behavior

and self-decriptive activity of the subject. As the incentive value goes down, the subject is said to view his insincere behavior increasingly as a tact rather than as a mand. Thus, there is attribution of responsibility for the behavior to self rather than to the environmental contingency, i.e., the monetary antecedent.

The Bem analysis is consistent with the choice variable manipulation findings as well. The more a subject is seen (or sees himself) as being free to participate, the more inclined he will be to interpret his behavior as tacting. Conversely, the less choice he has in the matter, the more a manding conclusion is likely. Further, Bem would not argue with the Jones and Gerard (1968) commitment findings. The mand/tact explanation remains viable. Subjects in the $.50- conditions who were paid before writing began would be seen (or would see themselves) as more tacting than subjects paid $2 before writing. Payment <u>after</u> writing had begun would necessarily be a consequent condition of post-behavior instrumental reward. In such a situation, the higher payment would be expected to generate greater "change" than the lower.

Thus, the Bem analysis has been extended to cover the inverse incentive relationship, the choice variable, the commitment variable, and the choice (commitment)-by-incentive interaction. The analysis in these cases resolves the incentive-dissonance conflict quite nicely. Empirical evidence prevents acceptance of the Bem alternative outright, however. The incentive vs. dissonance findings do <u>not</u> support the con-

clusions that one will always find a negative relationship existing between pre-behavior incentive and attitude change. To the contrary, several studies have demonstrated a positive relationship between these two variables, consistent with the incentive theory position (Scott, 1957, 1959; Bostrom, Vlandis, and Rosen, 1961; Linder, Cooper, and Jones, 1967).

These findings have led to the growth of a group of researchers who are currently concentrating upon specifying the conditions under which one can find a dissonance effect and/or an incentive effect. Several of these studies pose problematic issues for any extension of the Bem mand/tact self-description analysis. They all appear to have a common concern for the consequences variable.

The Consequence Findings

Prior to the dissonance-incentive controversy development, Scott (1957, 1959) demonstrated that subjects who debated in favor of counter-attitudinal positions for a $20-"winner"-reward, evidenced more attitude change than those who did not win. A similar finding was reported by Bostrom, Vlandis and Rosen (1961), whose subjects competed for "A's" in a counter-attitudinal essay-writing contest.

Scott's interpretation of these results declares that the change in beliefs was due to the reinforcement afforded the overt verbal responses of the subjects. Bem (1965) attempted to account

for these findings by suggesting that the designation "winner" adds a measure of credibility to the beliefs stated in the winning argument:

> The debaters in the debate studies . . . based the credibility of their own communications on the decisions of the judges. The self-perception interpretation is thus consistent with the data from both the debate experiments and the dissonance theory experiments (p. 210).

There is a problem with Bem's account, however. The $20-reward in the Scott study was foreseen by all subjects. Scott's subjects were aware in advance of their behavior of the potential reward. Such a situation constitutes part of the antecendent condition and would seem to confound it in that it was contradictory to a tacting conclusion on the part of the student. The awareness of a $20-reward potential would seem to qualify as an "environmental contingency," and, consequently, as a mand condition. Further, Linder, Cooper and Jones (1967) found an incentive effect in their choice manipulation study which does not fit with Bem's mand/tact attribution position. Subjects who were free to choose whether to participate or not evidenced the dissonance effect ($.50=attitude change), but subjects who were <u>forced</u> to participate evidenced attitude change under the $2-condition. The question raised for the Bem analysis position is one of consistency. That is, how can forced participation (a mand cue) and a $2-incentive (also, a mand cue) lead to attitude change, when such change is supposed to occur only in tacting conditions? Some light may

be shed on this problem with a consideration of the consequences variable as it has been utilized in the dissonance paradigm.

Nels, Helmreich and Aronson (1969) support the contention that dissonance is aroused only to the extent that an individual's self-concept is violated by his insincere behavior. Nels, et. al., assert that the attitude change was due to the fact that subjects performed an act, which had foreseeable negative effects, with little justification. In the Scott debate studies, the consequences were also foreseeable, but it was the positive (reward) condition which resulted in attitude change.

Carlsmith, Collins, and Helmrich (1966) replicated the original Festinger and Carlsmith (1959) experiment with half of the subjects speaking to a confederate in a face-to-face setting. The other group wrote anonymous essays. They found an incentive effect in the anonymous-written condition and a dissonance effect in the face-to-face condition. This suggests that the potentially negative consequences connected to the face-to-face encounter accounted for the differential findings.

The negative consequences-dissonance effect finding led Collins (1969) to offer a more generalized revision of dissonance theory.

> Dissonance occurs when insincere behavior produces objectively negative consequences for the subject himself or to his audience (p. 220).

Cooper and Worshel (1970) also replicated the Festinger and Carlsmith (1959) experiment, but manipulated the waiting confederate condition. All subjects argued in a face-to-face encounter. The findings supported the Collins revision. An inverse relationship between incentive and attitude change was found only when the confederate was convinced. This negative consequences-dissonance effect is, as we have previously pointed out, subsumed by the Bem analysis. However, an incentive effect was found in the Cooper and Worschel study when the conferate was not convinced.

Maintaining a concern for the consequences variable, Calder, Ross, and Insko (1973) hypothesized that a choice-by-incentive-by-aversive consequences interaction would account for the conflicting findings in the Festinger and Carlsmith (1959) replications. Discussing their dissonance and incentive findings, Calder, Ross, and Insko (1973) note:

> The results indicated that for either effect to occur, insincere behavior (telling a waiting subject that the dull task was interesting) must cause aversive consequences. Given aversive consequences, a dissonance effect occurred only when subjects had a choice as to whether or not to perform the insincere behavior. Conversely, a reinforcement effect resulted only when subjects were required to perform the insincere behavior (p. 84).

These findings appear to resolve some of the inconsistency in the counter-attitudinal advocacy literature. A number of issues were raised by the Calder, Ross, and Insko (1973) study however. Their

results provide a suggestion for an extension of the Bem self-perception theory to cover both paradigms. Thus, the Calder, Ross, and Insko experiment may be said to provide a primary impetus for this study.

The first issue, raised by the Calder, Ross, and Insko (1973) experiment is that of the negative consequences variable:

> On the basis of the present results, it appears that the Aronson-Collins hypothesis that aversive consequences are a pre-requisite for dissonance is correct, but why this is so remains unclear (p. 96).

It should be noted that the aversive consequence was also an apparent pre-requisite for the incentive findings in the experiment. It is in this light that we suggest that the reason for the opaque status of the aversive consequences variable is due to lack of control over the consequences condition. For example, the Calder, Ross, and Insko subject successfully (positive consequences) convinced a confederate that the dull task was interesting, resulting in negative consequences — the conferate indicated that he would be running the risk of flunking an important examination in order to participate. In the other condition, a subject failed (negative consequences) to convince the confederate that it was interesting. This results in, at least, the absence of negative consequence. Calder, Ross, and Insko (1973) agree that there is a problem in these potential relationships:

> Whether or not the success-fail, rather than the harm to the confederate element of the consequences manipulation is of more importance cannot be confidently determined from the present results (p. 96).

Another facet of the consequences variable, suggested earlier in this review, is recognized by Calder, Ross and Insko as potentially complicating their results. That is, the consequences may be foreseen, as we have suggested earlier, or they may be unforeseen. The Calder, Ross and Insko experiment contained elements of both in the negative condition. Their confederate was convinced (it is assumed that the subject foresaw this possibility) and gave up studying for an important examination (unforeseen). It would appear, therefore, that differential effects are possible when foreseen or unforeseen, positive or negative consequences exist in interaction with certain antecendent (choice -- incentive) conditions.

Hypothesis and Discussion

Bem argues that people attribute behavior-attitude consistency to others (and to themselves) on the basis of (1) the verbal self-description or advocacy statement, and (2) the contextual stimuli which surround the making of the statement. From the perspective of the counter-attitudinal literature just reviewed, the "contextual stimuli" appear to be constructed of three components — an antecedent context, extent of awareness of the possible outcome of one's behavior, and the actual outcome in terms of its being either positively rewarding or aversive. These three elements, or "factors," should combine to create the overall mand or tact context on the basis of which an

attribution to self (or to other) is made.

The formal hypothesis thus derived can be stated as:

H_1: There will be an interaction effect upon subjects' attitude attributions when exposed to a message under differing environmental conditions, as indicated by two levels of antecedent context, consequence awareness, and consequence valence.

The testing of such a hypothesis calls for a highly complex design manipulation concluding with a three-factorial analysis of variance statistic application. Each factor of the design requires two levels. Mand/tact context (choice/no-choice-incentive) conditions comprise the antecedent. Foreseen/unforeseen comprise the levels of the awareness variable. And, positive/negative comprise the two valence levels of the encountered consequence.

The multiple interaction hypothesis may also be viewed as a guideline for an extensive exploration of Bem's tacting and manding behavior notions. Further, the design suggested by the hypothesis should lead to a more complete understanding of the incentive-dissonance conflict.

Summary

An examination of the dissonance-incentive controversy as well as the Bem position with regard to it has now been completed. Bem's account subsumes the dissonance position and can be extended to resolve some of the early dissonance-incentive conflict. It has been determined however that the conflict between dissonance and incentive theories continues in the current research literature. Current emphasis

concentrates upon specifying the conditions under which one can find a dissonance effect and/or an incentive effect to which to attribute responsibility for "attitude change" occurring within the counter-attitudinal-advocacy paradigm.

The issues addressed in this chapter concerned the ways in which multiple antecedent conditions (choice/no choice-incentive) and multiple consequences combine to constitute a total context. It is assumed that these conditions constitute the basis from which attributions are made which discriminate between manding and tacting behavioral contexts. We have proposed therefore to explore the interactive nature of the antecedent and consequences of a persuasive communication act within a factorial design.

Most aspects of the proposed manipulation have been reported only from a limited and isolated perspective and not in conjoint interaction with the conditions which we propose to utilize. Consequently, while we have some expectations, we felt that specific hypotheses beyond that of a predicted interaction are premature.

CHAPTER II

DESIGN AND METHOD OF ANALYSIS

This chapter details the procedure utilized in an exploration of the interactive effects of behavioral antecedents and consequences upon subjects' determinations of manding and/or tacting contexts. Considerations include the procedure for subject selection, independent and dependent variable operationalization, and a plan for the analysis of the data.

Subject Selection

A random sample of one hundred subjects was taken from a population of freshmen and sophomore students enrolled in the Social Sciences classes during the 1974 Summer Session at Oklahoma City University. This student sample was then randomly assigned to treatment conditions ($n_i = 10$).

Procedure

Subjects were told that they had been selected at random for a survey research project dealing with information-processing (see Appendix A). Test booklets were then distributed consisting of a description of the antecedent to a communication act (see Appendix

B), the communication act (see Appendix C), and the consequences of that act (see Appendix D). The descriptions constituted the independent variable administration. The final page of the test booklet contained the dependent variable measurement items (see Appendix E).

The procedure constitutes a simulation condition in which observer-subjects read a description of an experiment in which a student was asked to prepare a one-minute speech in support of increasing the basic speech-course-requirement at his/her college from four semester-hours to eight. Antecedent condition manipulations comprised the conditions under which the speech was to be written. Subsequent to the antecedent manipulations, observer-subjects read the student's "speech" (Appendix C). The purpose of the speech was to add a note of believability to the experiences of the student. It was not designed to "persuade" the observer-subject to support or reject the advocated course-requirement increase. Dependent variable checks upon the perceived persuasability of the speech served in lieu of pretesting and were included as part of the dependent variable instrument. The speech was constructed by the experimenter and checks for neutrality and ambiguity were informally conducted through consultation with Social Sciences colleagues at Lander College, Greenwood, South Carolina. Following the reading of the speech, observer-subjects read of the consequences which the student encountered as a result of the speech writing exercise. Dependent variable administration followed immediately. Debriefing of subjects was conducted immediately thereafter.

The use of a simulation methodology is justifiable in terms of its potential. The rationale is Bem's (1970):

> The process of moving back and forth between the simulation and the actual situation is precisely the one which cognitive theorists have attempted to follow, and, in fact, it is this interaction between simulation and direct experimentation which comprises the heuristic utility of the simulation methodology. A simulation reveals an underlying assumption or implication of the model which was not originally observed or even anticipated. The theorist can then return to the original situation armed with a new hypothesis (p. 30).

The isomorphism between observer's attributions and actor-subject attitude "change" scores is not the major issue which the study addresses. Bem has already dealt rather specifically with it (Bem, 1970). However, since there continues to be concern for the methodology expressed in the current literature (Calder, Ross and Insko, 1973; Jones, Linder, et al., 1968; Piliavin, et al., 1969) an attempt will be made to provide sufficient checks upon the process. The issue will be dealt with subsequently, under the discussion of the dependent variables.

Independent Variables

Antecedent

Mand

Observer-subjects were provided with information which constituted cues to the specific reinforcement contingencies surrounding the speech:

> The student was told that he had to participate in the experiment in order to complete the four hour credit requirement of the Speech 101 course in which he was enrolled, even though the experimenters were aware the student had indicated to his instructor that he did not wish to participate in any experiments during the semester. The experimenter told the student

> that he had been authorized to pay students $20 as an incentive and to compensate for the inconvenience. Thereupon, the student was paid $20, in cash (see Appendix B).

Tact

For purposes of this study, and in keeping with the Bem perspective, the key to the tacting condition was freedom of choice:

> The student was told that he was, of course, totally free to participate or not to participate in the experiment. The researcher asked the student if he would be willing to prepare the speech. The student said that he would (see Appendix B).

Awareness

Foreseen Consequences

Two conditions were required for a consequence to qualify as "foreseen". First, cues had to be present in the antecedent suggesting the presence of alternative consequences for the behavior. Further, in the antecedent instance, the cues must occur prior to the solicitation of participant agreement, else it becomes a consequence of unforeseen quality. The second condition of qualification was (as it was in all consequence conditions) that it must be encountered. We are concerned here with the extent to which the consequence may be identified as potentially negative or potentially positive, as well as with the awareness of its nature.

Foreseen Positive. Observer-subjects assigned to this condition read that the student was told of the potential consequences of participation:

> The experimenter then told the student that the exercise would take the place of his final exam for Speech 101, but that the people in charge of the project were going to award a $50 prize to the person who developed the best argument in support of the proposed change in course requirements (see Appendix B).

Foreseen Negative. Observer-subjects assigned to this condition read:

> The experimenter then told the student that the exercise would take the place of his final exam for Speech 101. Further, he was told, the grade for the exercise would constitute 50% of his overall course grade. Such a situation, he was told, meant that failing to write an acceptable speech might result in some students failing the course outright (see Appendix B).

Valence

Foreseen Consequence-Encounter

As noted earlier, the consequence relationships with which we were concerned have to do with the potential interaction between the antecedent foreseeability/unforeseeability of the consequence and its actual encounter following the advocacy behavior. Thus there was a positive encounter and a negative encounter to correspond with the respective antecedent manipulations.

Foreseen Positive Encounter:

> Shortly after turning in the speech, the student was contacted by the experimenter who informed him that his speech had been judged as the best. He was told that he was the winner of the $50 prize and that a grade of "A" had been recorded as the final grade (see Appendix D).

Foreseen Negative Encounter:

> Shortly after turning in the speech, the student was contacted by the experimenter who informed him that his work had been judged "Unacceptable." He was told that a grade of "F" had been recorded for the Speech 101 final exam. The experimenter had checked

with the student's instructor and had determined that the "F" would, in fact, cause the student to fail the course (see Appendix D).

Unforeseen Consequences

For a consequence to qualify as "unforeseen" no hint of potential outcome must be present in the antecedent and the consequences must then be encountered following advocacy behavior.

Positive.

Shortly after turning in the speech, the student was contacted by the experimenter who informed him of the true nature of the experiment. The student was told that while he had not been informed in advance, the speech preparation had actually been the student's final exam in Speech 101. The student was told that judges had awarded him a grade of "A" and that it would constitute 50% of his course grade. Further, he was told that he had actually been in competition for a $50 prize for the best speech. On the basis of judges' comparisons, he was told, the prize was to go to him. Within the hour the student had received his $50 cash prize (see Appendix D).

Negative.

Shortly after turning in the speech...in Speech 101. The student was then told that judges had declared his speech "unacceptable," and that a final grade of "F" had been recorded, constituting 50% of his course grade. The experimenter had checked with the instructor and had determined that the "F" would cause the student to flunk the Speech 101 course (see Appendix D).

Consequence Control

A two-level control condition was utilized comparing antecedent conditions only (no consequence information) The condition constitutes the traditional dissonance-incentive comparison except that consequence information is wholly lacking from the manipulation (see Appendix B).

Dependent Variables

Consistency Attribution

This variable constitutes the item upon which the simulation

hypothesis rests. Consistency attribution was defined as the response (ranging from Disagree Completely to Agree Completely) on a one-hundred millimeter line of an observer-subject, taking the role of the experimental condition student, to the following statement:

> The Speech 101 course requirement of four hours at Bemian College should be increased to eight (see Appendix E).

Scoring is calculated by measuring the distance from the end point on the scale to the vertical mark placed by the observer-subject. A constant of 10 was added to each measurement-score for ease of computerization. Thus the range of possible scores per subject was from ten (10) to one-hundred-and-ten (110). The same scale procedure and scoring was followed in each of the dependent variable conditions.

Speech Evaluation

This variable constitutes one of two items calling for the observer-subject's own attitude evaluation. Speech evaluation was defined as the response (ranging from Excellent Speech to Bad Speech) on a one-hundred millimeter line of the observer-subject acting in his own behalf, to the following question:

What did you think about the student's speech? (see Appendix E).

Speech Persuasiveness

This variable is the second of two items calling for the observer-subject's own attitude evaluation and constitutes a check upon the validity of the simulation condition. Speech persuasiveness was defined as the response (ranging from Disagree Completely to Agree Completely) on a one-hundred millimeter line of an observer-subject, acting in his own behalf, to the following question:

> Would the speech have convinced you to vote in favor of increasing the Speech 101 course requirement from four to eight hours? In other words, would you agree or disagree that the speech presented a good case for increasing the course requirements at Bemian College? (see Appendix E).

The three dependent variables just presented were included among a list of five other questions and/or statements (see Appendix E) relating to the experiences of the student and asking for observer-subjects' own responses. The latter items were added for purposes of masking the three dependent variables and were not included in data analysis procedures.

In keeping with earlier operationalization discussions, the higher a subject's score, attribution to a tacting condition was presumed. The lower the score, attribution to a manding context was presumed. Intervality of the scale was assumed, in keeping with its use by others (Bem, 1965, 1970; Jones, et al., 1968; Piliavin, et al., 1969; Vallins, 1966; Dawes, 1972).

Data Analysis Procedures

The interval level data from the dependent variable measures was subjected to a three-way analysis of variance procedure as a test of the interaction hypothesis. Post hoc cell comparisons were carried out utilizing the Scheffè comparisons procedure where theoretic questions arose. An a priori level of $p. < .05$ was selected as the significance criterion for the ANOVA procedures. An a priori level of $p. < .10$ was selected as the significance criterion for the cell comparisons, as suggested by Scheffè (1953).

The control condition discussed earlier formed the basis for a simple comparison of the mand/tact antecedent relationship. The data to be utilized in the three-way analysis of variance did not include control group data, due to the extremely large number of illogical cells which would have confounded the analysis of variance statistic. However, the control group cell variances were included as part of the best estimate of the population variance utilized in the error-term of the Scheffè cell comparisons.

Discussion

Of particular importance to incentive and dissonance perspectives would be a significant main effect for the antecedent conditions and/or a significant interaction at any level involving the antecedent conditions. Support for the dissonance position would be forthcoming should such a finding (1) be significant, and (2) be accountable to the tact-level of the antecedent leading to higher evaluation-attribution scores. Support for the incentive position would be forthcoming should such a finding (1) be significant, and (2) be accountable to a mand-level influence leading to higher evaluation-attribution scores. In terms of the control conditions, a significant difference in favor of tact conditions would suggest support for dissonance, while higher evaluation-attribution scores in the mand context would provide support for the incentive position.

It is in keeping with these concerns that we endeavored to maintain the integrity of the competing paradigms (dissonance

vs. incentive) in the design of the antecedent conditions by relating them to past research operationalizations and findings. Thus, our antecedent mand condition involved both forced participation and an incentive payment before the requested behavior was undertaken by the hypothetical student. Conversely, the tact condition contained complete freedom of choice for the student consistent with the dissonance view.

Summary

This chapter has detailed the procedure utilized in an exploration of the interactive effects of behavioral antecedents and consequences upon observer-subjects' determinations of manding and/or tacting contexts.

Random procedures for subject selection and assignment to manipulation conditions were outlined. Ten subjects in each of ten conditions were obtained resulting in a total n-size of one-hundred (100). Justification of a Bem-type simulation procedure was presented and a check upon the procedure was included in the design.

Mand and tact antecedent conditions were operationalized, as were the following consequence conditions: foreseen positive and negative, unforeseen positive and negative, and a control condition with two levels of antecedent (mand/tact) operating with no consequence information. Dependent variable measurement administration procedures and scale devises were discussed. Interval level data was assumed in keeping with past research.

CHAPTER III

RESULTS

This chapter details the results of the analysis of the data obtained from the experimental manipulations discussed in the previous chapter. Results are presented in three sections corresponding to the dependent variables discussed earlier.

Dependent Variable One: Consistency Attribution

The scores obtained from this variable were subjected to a three-way analysis of variance procedure as a test of the formal interaction hypothesis as it related to the question of attribution. The variable statement, to which observer-subjects responded, was as follows:

> The Speech 101 course requirement of four hours at Bemian College should be increased to eight.

The consistency issue is related to the question, whether the observer-subject's attribution of attitude-behavior consistency would be shaped by the hypothesized three-factor interaction? As can be seen in Table I, the interaction hypothesis was not confirmed.

Table I: Analysis of Variance: Consistency Attribution

Source	SS+	df	MS	F-Ratio	P
Total	65406.8570	79			
Between	18163.4810	7	2495.783		
Antecedent	541.0550	1	541.055	0.8246	.6300
Awareness	3809.025	1	3809.025	5.8050	.0176*
Valence	12103.441	1	12103.441	18.4459	.0002*
Antecedent/Awareness	92.147	1	92.147	0.1404	.7103
Antecedent/Valence	280.938	1	280.938	0.4282	.5220
Awareness/Valence	119.762	1	119.762	0.1825	.6742
Antecedent/Awareness/Valence	1217.111	1	1217.111	1.8549	.1741
Within	47243.3760	72	656.158		

*= $p. < .05$

+= calculations for SS not provided by computer output. All SS computed in reverse order (MS x df). Floating point decimal operation utilized by computer responsible for rounding error (SS re/Variable 1= .0080).

The analysis of variance procedure performed upon the responses to the consistency attribution variable revealed two main effects — one for the awareness factor, and one for the valence factor.

Dependent Variable Two: Speech Evaluation

The analysis of variance performed upon the responses to dependent variable two ("What did you think about the speech that the student wrote?") revealed two significant interactions - an antecedent-by-valence interaction, and a three-factor interaction between antecedent, awareness, and valence. Results are summarized in Table II.

Scheffè comparisons were undertaken to examine the relationships between the cells involved in the interaction conditions which had been declared significant. The results of those comparisons are reported and discussed in Chapter Four.

Dependent Variable Three: Speech Persuasiveness

Dependent variable three asked the observer-subject to record his own evaluation of the persuasiveness of the student's speech:

> "Would the speech have convinced you to vote in favor of increasing the Speech 101 course requirement from four to eight hours? In other words, would you agree or disagree that the speech presented a good case for increasing the course requirements at Bemian College?"

The results of the analysis of variance performed upon the speech persuasiveness variable are summarized in Table III.

The summary table of the analysis of variance of the speech persuasiveness variable reveals one significant interaction condition — an antecedent, awareness, valence interaction. There are no main effects at any level of the three factors, and there are no other interaction effects.

Table II: Analysis of Variance: Speech Evaluation

Source	SS+	df	MS	F-Ratio	P
Total	49387.9210	79			
Between	6904.1770	7	986.311		
Antecedent	110.724	1	110.724	0.1877	.6700
Awareness	115.469	1	115.469	0.1957	.6638
Valence	120.352	1	120.352	0.2040	.6574
Antecedent/Awareness	83.711	1	83.711	0.1419	.7050
Antecedent/Valence	3174.844	1	3174.844	5.3806	.0219*
Awareness/Valence	173.750	1	173.750	0.2945	.5957
Antecedent/Awareness/Valence	3125.312	1	3125.312	5.2966	.0228*
Within	42483.744	72	590.052		

*= P.<.05

+= SS re (Variable 2= .0440)

Table III: Analysis of Variance: Speech Persuasiveness

Source	SS+	df	MS	F-Ratio	P
Total	34269.8500	79			
Between	4580.5060	7	654.358		
Antecedent	99.984	1	99.984	0.2400	.6313
Awareness	52.773	1	52.773	0.1280	.7221
Valence	465.586	1	465.586	1.1291	.2916
Antecedent/Awareness	19.023	1	19.023	0.0461	.8250
Antecedent/Valence	456.016	1	456.016	1.1059	.2968
Awareness/Valence	300.313	1	300.313	0.7283	.5992
Antecedent/Awareness/Valence	3187.812	1	3187.812	7.7308	.0069*
Within	29689.3440	72	412.352		

*= p.<.01

+=SS re (Variable 3= .0450)

Table IV: Summary Results of the Analyses of Variance

Source	Findings	State of the Hypothesis
Dep. Variable One (Consistency Attribution): Course requirements should be increased to eight hours	Main Effect ($p < .05$) for Awareness Factor Main Effect ($p < .05$) for Valence Factor	Dep. Variable One: not supported
Dep. Variable Two (Speech Evaluation: Observer's Own):	Interaction ($p < .05$) Antecedent-Valence Interaction ($p < .05$) Antecedent-Awareness-Valence	Dep. Variable Two: supported
Dep. Variable Three (Persuasiveness: Observer's Own):	Interaction ($p < .01$) Antecedent-Awareness-Valence	Dep. Variable Three: supported

The Scheffè comparisons undertaken to examine the relationships among the cells involved in the interaction are reported and discussed in Chapter IV.

Summary

This chapter has detailed the results of the analysis of data obtained from the experimental manipulations presented in Chapter II. Each of the three dependent variables was subjected to a three-way analysis of variance procedure as called for in Chapter II as the test statistic for the interaction hypothesis.

Table IV presents a summary of the results of the data analysis. As the summary of findings (Table IV) indicates, the three-factor interaction hypothesis was supported in two instances, both dealing with observer-subjects' own responses. The hypothesized interaction affecting observer-subjects' attribution to the communicator was not supported.

CHAPTER IV

DISCUSSION

The research question for this study was: "Can the Bem self-perception analysis position be extended to subsume the attitude change paradigm? More specifically, can a Bem analysis perspective be utilized to clarify the dissonance-incentive controversy continuing within the counter-attitudinal advocacy tradition?" The answer seems to be affirmative.

The purpose of this chapter is to present a discussion of the results of the data analysis. The chapter is divided into two major sections. The first section discusses the results of the various analyses of the data presented in the earlier chapter. Section two contains the conclusions, first with regard to the incentive-dissonance controversy and second regarding the role of the Bem perspective within the controversy.

The Data: Theoretic Issues

In the discussion which follows, the results of the data analyses will be discussed from three prespectives - dissonance theory, incentive theory, and the Bem self-perception paradigm. The concern

is the sufficiency of each perspective to account for the results, and the consistency with which each may be applied. The presentation will follow the same pattern as that presented in Chapter III, taking each dependent variable in sequence. In the discussion which follows the results of the control group comparisons will also be presented for the first time. Such a procedure is consistent with the notations throughout that the control group conditions were to be utilized only for comparison purposes and for a point of reference during the discussion.

Dependent Variable One: Consistency Attribution

The consistency attribution variable was concerned with responses made by observer-subjects on behalf of the student to the statement "The Speech 101 course requirement of four hours at Bemian College should be increased to eight." The variable was utilized in the test of the formal consistency attribution interaction hypothesis advanced in Chapter I. The three-way interaction did not occur. Two main effects were revealed - one for the awareness of the consequence and one for the valence of the consequence. We will consider the awareness factor first.

Foreseen consequences ($\overline{X}$ = 55.525) generated greater attribution of attitude consistency than did unforeseen consequences ($\overline{X}$ = 41.725). Interpretation of these findings is confounded by the fact that consequences were both positive and negative. The implication here is that,

regardless of the valence, observer subjects attributed greater attitude consistency to the student when the student wrote in conditions that involved consequences which were foreseeable.

Dissonance theorists, it seems, would be hard pressed for a succinct explanation of these results taken on their face value. Dissonance would seem to be more likely under conditions of unforeseen consequences. Incentive theorists might argue that foreseen consequences constitute a direct incentive, but this would seem to be the case only if they were positive. The cell breakdown of mean score values (See Appendix G) indicates that in the foreseen awareness-by-valence comparisons, that the foreseen positive condition had a mean value of 66.6, while the foreseen negative mean value was 55.25, a difference of 11.35mm. Thus, it would appear that neither the incentive nor the dissonance perspectives are sufficiently able to account for the main effect of the awareness factor.

The Bem perspective would seem to subsume these findings with little difficulty. The perspective would argue, simply "If he knew what might happen to him when he did it, then he must have meant it." An examination of the control condition reactions to this variable is interesting in this light.

While there was no significant difference between the two levels of the control condition, there was a significant difference between the control condition as a whole ($\overline{X}$ = 69.20) and all other conditions ($\overline{X}$ = 48.625, $\overline{X}_{diff}$ = 20.625, C.D. = 11.4864 at $p < .10$) on

the attitude consistency statement* The point of interest is that the control conditions are absent of any information regarding consequences. Apparently the lack of information in the control conditions generated even greater attitude consistency attributions. In the absence of information regarding consequences, the self-perception (other perception) perspective would state, "If he did it, he meant it."

The second main effect yielded in the analysis of variance of the consistency attribution variable was for that of the Valence of the encountered consequence. Positive consequences ($\overline{X}$ = 60.9250; winning $50 for best speech and in being given an "A" in the course) generated greater attribution of attitude consistency than did negative consequences ($\overline{X}$ = 36.350; being told the speech was "unacceptable," and receiving an "F" in the course). This appears to be a matter of reward/punishment differentiation on the part of observer subjects. It is interesting to note that the differentiation was apparently not in terms of endorsing the proposal, but in terms of <u>not</u> endorsing it.

It is obvious that subjects did perceive the environmental cues provided by the awareness factor and the valence factor and that those cues tended to determine the direction of their attributional responses. This is exactly the point of the Bem self-perception argument. However, the lack of any significant antecedent effect raises some confusion, as does the lack of any significant difference between

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*Based upon Scheffè t-test comparisons of group means (See Appendix H).

the levels of the control group condition. Since there was no significant contribution to the distribution of means due to antecedent characteristics, neither dissonance, incentive, nor the Bem position can be encouraged.

The most likely source of an explanation for these findings lies in the design of the experiment. It is possible that the consequences issue was overemphasized, making it more visible. Additionally, it should be remembered that we asked the observer-subject to "put yourself in his (the student's) position." The failure of the three-factor interaction in the simulation condition, in light of its occurrence on the other dependent variables dealing with observer-subjects' own responses, raises a question for the Bem perspective. Is the simulation procedure really "functionally equivalent?" Based on the data, it would appear to be that it is not. Speculation is reserved for Chapter Five.

Dependent Variable Two: Speech Evaluation

The speech evaluation variable was initially considered a check upon the overall effectiveness of the speech the student was to have written. Observer-subjects were asked to provide their own evaluations of the speech by responding to the question, "What did you think about the speech that the student wrote?"

The analysis of variance procedure performed upon the rating of the speech revealed two significant interaction conditions. An antecedent-by-valence interaction was significant ($p < .05$). The hypothesized three-

factor, antecedent-by-awareness-by-valence interaction was also significant ($p.<.05$). Scheffè-type comparisons were made across the cell means making up the two interaction conditions in an attempt to discern the source of the significance. We will discuss the two-factor interaction first. Table V provides a summary of the Scheffè comparisons.

The Scheffè comparisons within the two-factor antecedent-by-valence interaction revealed two significant relationships. Mand/negative conditions evidenced significantly lower evaluations of the speech in contrast to either tact/negative or mand/positive. It is important to note that this interaction represents the traditional paradigm within which the dissonance-incentive controversy is waged. Both the tact/negative and the mand/positive conditions hold the higher evaluation positions and constitute both a dissonance effect (in the former) and an incentive effect (in the latter). It would appear that subjects utilized the judges' decision (the actually encountered consequences) when the antecedent involved the incentive (mand) context, but emphasized the free choice (tact) context in the tact/negative consequences condition. The depressed mand/negative cell would appear to be an instance of a mand context throughout the manipulation with confirmation of insincere preformance by the judges' decision. The Bem position may be said to gain support from the fact that neither dissonance nor incentive perspectives can provide a sufficient account for these findings. Table VI summarizes the three-factor interaction.

Table V: The Antecedent-by-Valence Interaction of Speech Evaluation
Scheffè Comparisons of Cell Mean-Differences

Condition	(Cell Mean)	Tact Positive	Tact Negative	Mand Positive	Mand Negative
Tact Positive	(45.30)		10.25	15.05	9.90
Tact Negative	(55.55)			4.80	10.15*
Mand Positive	(60.35)				25.95*
Mand Negative	(35.40)				

MS_W = 604.4403

Critical Difference = 18.3725 at p .10 (df = 60)

*p < .10

Each of the three highest rating conditions, while not significantly different from one another, are significantly different from the two lowest rating conditions which have almost identical cell means. This set of relationships provides two valuable insights. First, it sheds some light upon the conflicting findings existing within the "attitude change" literature reviewed in Chapter I. And second, it suggests the rather subtle distinctions which observer-subjects apparently utilize in their response patterns as we suggested from the Bem perspective in Chapter I.

In terms of the traditional paradigm, the significant relationships represent high speech evaluations as a result of both (1) an incentive/forced choice effect, and (2) a free/choice dissonance effect, as they are classically operationalized. Note that the mand/foreseen negative and tact/foreseen negative provide the example of competing paradigm effects being obtained under negative consequence conditions. This was the condition which confronted Calder, Ross and Insko (1973) and confounded their explanation of results. The reason for the complication in that instance, it now becomes evident, was due to lack of control for the awareness factor.

These findings provide support for both the free choice/dissonance position as well as for incentive theory followers, but contain problematic issues for both positions. How, for example, are dissonance advocates to explain away the high rating under the foreseen negative conditions which lead to an incentive effect? The choice

Table VI: The Antecedent-by-Awareness-by-Valence Interaction of Speech Evaluation Scheffé Comparisons of Cell Mean-Differences

		Tact F +	Tact F -	Tact UNF+	Tact UNF-	Mand F +	Mand F -	Mand UNF+	Mand UNF-	Tact Control	Mand Control
	Cell Means	52.3	57.8	48.0	53.3	38.3	62.9	63.1	37.5	42.0	60.0
Tact Foreseen	+ 52.3		5.5	4.3	1.0	14.0	10.6	10.8	14.8	10.3	7.7
Tact Foreseen	- 57.8						5.1	5.3	20.3*	15.8	2.2
Tact Unforeseen	+ 48.0							15.1	10.5	6.0	12.0
Tact Unforeseen	- 53.3							9.8	15.8	11.3	6.7
Mand Foreseen	+ 38.3							24.3*	0.8	3.7	21.7*
Mand Foreseen	- 62.9							0.2	25.4*	20.9*	2.9
Mand Unforeseen	+ 63.1								25.6*	21.1*	3.1
Mand Unforeseen	- 37.5									4.5	22.5*
Tact Control	42.0										18.0
Mand Control	60.0										

F = foreseen consequences
UNF = unforeseen consequences
+ = positive consequences
- = negative consequences

MS_W = 604.4403
Critical Difference = 18.3725 at $p < .10$ (df=60)

*$p < .10$

Note: Control conditions were not included in the analysis of variance procedures. Thus they do not account for any of the interaction significance. They are presented here for purposes of comparison and subsequent discussion.

Table VI: The Antecedent-by-Awareness-by-Valence Interaction of Speech Evaluation
Scheffè Comparisons of Cell Mean-Differences

		Tact F +	Tact F -	Tact UNF+	Tact UNF-	Mand F +	Mand F -	Mand UNF+	Mand UNF-	Tact Control	Mand Control
	Cell Means	52.3	57.8	48.0	53.3	38.3	62.9	63.1	37.5	42.0	60.0
Tact Foreseen	+ 52.3		5.5	4.3	1.0	14.0	10.6	10.8	14.8	10.3	7.7
Tact Foreseen	- 57.8			9.8	4.5	19.5*	5.1	5.3	20.3*	15.8	2.2
Tact Unforeseen	+ 48.0				5.3	9.7	14.9	15.1	10.5	6.0	12.0
Tact Unforeseen	- 53.3					15.3	9.6	9.8	15.8	11.3	6.7
Mand Foreseen	+ 38.3						24.6*	24.3*	0.8	3.7	21.7*
Mand Foreseen	- 62.9							0.2	25.4*	20.9*	2.9
Mand Unforeseen	+ 63.1								25.6*	21.1*	3.1
Mand Unforeseen	- 37.5									4.5	22.5*
Tact Control	42.0										18.0
Mand Control	60.0										

F = foreseen consequences
UNF = unforeseen consequences
+ = positive consequences
- = negative consequences

MS_W = 604.4403
Critical Difference = 18.3725 at $p < .10$ (df=60)

*$p < .10$

Note: Control conditions were not included in the analysis of variance procedures. Thus they do not account for any of the interaction significance. They are presented here for purposes of comparison and subsequent discussion.

condition apparently had little impact on the outcome of any of the three higher evaluation ratings. In terms of the low ratings, similar issued are raised for the traditional paradigm. How can incentive conditions be responsible for both high and low ratings? Dissonance holds that unforeseen aversive consequences will generate dissonance and be followed by higher evaluations (Aronson and Mills, 1959, for example). Why the absolutely lowest rating in the case of an unforeseen consequence? The answer may be anticipated in that it can be argued that there was no free choice. It should be noted that the tact/unforeseen negative cell did not contribute to the significant interaction.

Finally with regard to incentive issues, how is incentive theory to account for the low score rating given when the conditions constitute incentive? That is, the next lowest rating involved in the significant cell interactions was that of a mand/foreseen positive manipulation. The low rating was given when observer-subjects viewed the student as given no choice, paid an incentive, told in advance of the possible reward (another incentive) and as actually receiving the reward. Perhaps the condition raised too much dissonance?

The sufficiency of these two traditional paradigms would appear lacking in the face of these findings. The Bem functional analysis approach goes much farther than either incentive or dissonance in an accounting for the results.

The highly rated mand/unforeseen positive condition recalls Bem's (1965) discussion of the Scott (1957, 1959) reinforcement ex-

periments. That is, the declaration by a judge that the speech was best and the $50-prize provided the cues for the high rating. The important contrast here is that the present condition involved a totally unforeseen consequence while the Scott experiment was conducted with no controls on the awareness factor. This would appear to be an example of behavior-consequence updating of the context of the pre-behavior condition. Without awareness control, subjects would be faced with an either-or condition and the outcome would be expected to hinge upon the valence issue.

The high rating given to the mand/foreseen negative suggests that the mand quality of the antecedent was reduced due to the awareness that the writing of the speech involved a negative potential consequence. The tact/foreseen negative provides a tact-type context throughout the student's experience until the valence is encountered. The negative encounter apparently had little effect upon the tact determination made by subject-observers. The awareness factor obviously did make a difference.

Regarding the low ratings, the Bem analysis perspective is even clearer. The foreseen positive condition in conjunction with the mand antecedent context makes for a clear-cut mand attribution context throughout the experience in which the student's speech is tied directly to visable contingencies. The mand/unforeseen negative is an instance of both visable contingencies in the antecedent coupled with the judges' confirmation of poor performance in the valence encounter.

The control conditions evidenced no significant differences

on the speech evaluation variable in terms of a comparison of the control levels (mand vs tact). However, there were some perplexing questions for the Bem perspective raised by the multi-cell comparison procedures involving the control levels and the cells involved in the significant interaction. The mand/no consequence control ($\overline{X}$ = 60.0) was significantly different from the mand/foreseen positive ($\overline{X}$ = 38.30) condition ($\overline{X}_{diff}$ = 21.7, C.D. =18.372 at p.<.10). Additionally, the mand control was significantly different from the mand/unforeseen negative ($\overline{X}$ = 37.50) condition ($\overline{X}_{diff}$ = 22.50, C.D. =18.372 at p<.10). The point made by these comparisons is that subjects without awareness or consequence information apparently utilized the incentive antecedent in registering higher evaluation scores in contrast to two incentive antecedent conditions which led to lower scores. We will discuss this interesting set of circumstances at a later point in this chapter.

Dependent Variable Three: Persuasiveness of the Speech

This variable asked the observer subject to indicate the extent to which he was persuaded by the student's speech. The statement to which the subject responded was "Would the speech have convinced you to vote in favor of increasing the Speech 101 course requirement from four to eight hours? In other words, would you agree or disagree that the speech presented a good case for increasing the course requirements at Bemian College?"

The analysis of variance indicated again that observer-subjects' own responses were distributed according to the hypothesized

interaction - antecedent-awareness-valence. No other factors or combinations of factors approached significance.

The Scheffè comparisons across cells provided further clarification of the rather complex findings discussed thus far. A summary of those comparisons is presented in Table VII.

The mand/unforeseen negative cell depressed the overall value distribution and is seen here as significantly interacting with the four highest cells, none of which are significantly different from one another.

The first interpretation is that the lower score condition provided cues which led to lower ratings, rather than the higher score conditions necessarily reflecting "high" ratings.

Both levels of the antecedent condition are involved in significant cell comparisons, and demonstrate the complexity of the mand/tact context issue we raised in Chapter I. Two significant tact conditions led to "higher" persuasion scores—(1) when positive consequences were foreseen, and (2) when negative consequences were encountered unexpectedly (unforeseen). Two significant mand antecedent conditions also led to higher persuasion scores under a <u>reverse</u> set of consequence conditions, viz., (1) when negative consequences were foreseen, and (2) when positive consequences were unforeseen.

When the student was seen as being free to choose (tact antecedent), wrote the speech and encountered an unforeseen negative, the mean score went down (42.1) but the cell was still high enough to significantly be differentiated from the low-cell condition, a mand/

Table VII: The Antecedent-by-Awareness-by-Valence Interaction of Persuasion of Observers
Scheffè Comparisons of Cell Mean-Differences

	Tact F +	Tact F -	Tact UNF+	Tact UNF-	Mand F +	Mand F -	Mand UNF+	Mand UNF-	Tact Control	Mand Control
Cell Mean	44.3	35.5	35.2	42.1	34.9	43.6	49.1	23.1	38.8	51.8
Tact Foreseen + (44.3)		8.8	9.1	2.2	9.4	0.7	4.8	21.3*	5.5	7.5
Tact Foreseen - (35.5)			0.3	6.6	0.6	8.1	13.6	12.4	3.3	16.3*
Tact Unforeseen + (35.2)				6.9	0.3	8.4	13.9	12.1	3.6	16.6*
Tact Unforeseen - (42.1)					7.2	1.5	7.0	19.0*	3.3	9.7
Mand Foreseen + (34.9)						8.7	14.2	11.8	3.9	16.9*
Mand Foreseen - (43.6)							5.5	20.5*	4.8	8.2
Mand Unforeseen + (49.1)								26.0*	10.3	2.7
Mand Unforeseen - (23.1)									15.7*	28.7*
Tact Control (38.8)										13.0
Mand Control (51.8)										

F = foreseen consequences
UNF = unforeseen consequences
+ = positive consequences
- = negative consequences

MS_w = 456.6273
Critical Difference = 15.9688 at $p < .10$ (df = 60)

*$p < .10$

Note: Control conditions were not included in the analysis of variance procedures. Hence they do not account for any of the interaction significance. They are presented here for purposes of comparison and subsequent discussion.

unforeseen negative. Deference to the judge's opinion would appear to be the best single explanation of these findings, although such an explanation does not hold true throughout the conditions. The awareness factor, for example, apparently made an impact upon the mand/foreseen negative in the sense that a foreseeably negative consequence would appear to lend credence to the overall context. But the awareness factor apparently was not of influence upon the tact/foreseen positive condition. A foreseen positive consequence, it would appear, should contribute to a mand-type context. It obviously did not.

The control group responses to the persuasiveness variable provide comparably interesting findings. The mand/no consequences condition (51.80) was not significantly different from the tact/no consequences condition (38.80). But, when compared to the eight experimental conditions involved in the analysis of variance, the mand/control was significantly ($p < .10$) different from four of them. The four were not involved, however, in those independent variable conditions associated with the significant interaction. The point to be made here is that the mand/control condition obtained the highest persuasion scores in all of the ten experimental conditions. The lack of information regarding consequences obtained an obvious incentive effect. It should be noted that subjects in the mand/control condition are not confronted with an either/or type of awareness outcome potential, but a complete and controlled lack of information about consequences. The use of the hypothetical construct of "biased scanning" is not necessary in this instance. Rather, the condition appears one of a simple, straightforward relationship between incentive and

higher scores, i.e., "I was paid to do a good job. Lacking any information to the contrary, I guess that's what I did." In this sense, the interpretation is somewhat consistent with the functional approach offered by Bem.

The above approach to the findings within the control group condition point out a major difference between our conditions and the traditional incentive/dissonance differentiation which Bem makes. In our condition, there simply are no consequences. In the replications of the Festinger and Carlsmith (1959) studies, consequences are traditionally left to chance.

Toward a Resolution of the Dissonance-Incentive Controversy

The issues underlying the dissonance-incentive controversy appear more clearly as a result of this study's findings. That a controversy should have grown up around these competing viewpoints is not surprising in light of the complexity exposed by the data. Any paradigm concentrating its concerns for the antecedent alone, or insisting upon retaining the view that attitudinal complexes are autonomous would necessarily be filled with unexplained and often contradictory findings. The data suggest that a direct relationship between antecedent contexts and attitudinal responses exists only when information concerning outcomes is rigidly controlled. It should be apparent that such a circumstance rarely exists in the field. The implication is that an "internal predisposition to respond" may exist in some form, but would appear most certainly as <u>not</u> an autonomous phenomenon relative to the environment.

The "real world" human engages in attitude responses which, Bem argues, and with which the writer agrees, are self-descriptive. As such they reflect a highly complex attribution process. The data support the argument herein that this process involves a three-factor inter-relationship between antecedent conditions, awareness and valence of actually encountered consequences. That these were not evidenced in the attribution to other situations (Dependent Variable 1) is another matter to be discussed subsequently. For the present, the concern is with the process of attribution to self.

The findings reported in this study puts the counter-attitudinal-advocacy paradigm in a new light. Most certainly additional research should be forthcoming as a result. Some tentative hypotheses will now be offered as a summary clarification of the findings as they relate to the traditional perspective.

1. When consequences are negative

    a. if foreseen, then either incentive or free choice antecedents will obtain higher evaluations (these findings indicate a tendency toward the incentive antecedents).

    b. If unforeseen, then the Tact/free-choice antecedent will obtain higher evaluations, while an incentive antecedent will obtain lower evaluations.

2. When consequences are positive

    a. if foreseen, then Tact/free choice antecedent will obtain the higher evaluations, while the Mand/incentive antecedent will result in lower evaluations.

b. if unforeseen, then either incentive or free choice antecedents will result in higher evaluations (and again, these findings indicate a tendency toward the incentive condition).

3. When consequences are wholly controlled, i.e., no consequence information is provided to the subject, and no cues are present to suggest them

   a. an incentive will obtain higher evaluations

   b. the free choice condition will obtain lower evaluations*

4. In an awareness context of either/or consequences

   a. an incentive antecedent with an awareness of both a potential positive and a potential negative will lead to higher evaluations depending upon the valence of the actual outcome:
      1. positive valences should obtain higher evaluations
      2. negative valences should obtain lower evaluations.

   b. a free choice antecedent with an awareness of both a potential positive and a potential negative will obtain higher evaluations depending upon the valence of the actual outcome:
      1. negative valences should obtain higher evaluations
      2. positive valences should obtain lower evaluations.

5. In a controlled awareness context with no consequence encounter

   a. an incentive antecedent with an anticipated positive consequence will lead to lower evaluations.

   b. an incentive antecedent with an anticipation of a negative consequence will lead to higher evaluations.

   c. a free choice antecedent with an anticipation of a positive consequence will lead to lower evaluations.

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* There are additional considerations for the free-choice condition and will discuss them subsequently.

d. a free choice antecedent with an anticipation of a negative consequence will lead to higher evaluations.

Incentive vs Free Choice: The Bem Perspective

Earlier in this discussion it was noted that the mand/control condition in our experimental procedures had evidenced a decided trend towards an incentive effect. We have already noted a major difference between our conditions and the traditional free choice-incentive comparisons regarding the nature of control over the consequence information. Mand/control subjects may have utilized the same self-perception process described by Bem. A different explanation is in order for the low evaluation scores evidenced by the tact (free choice)/control condition. The findings offered thus far provide convincing evidence for a conclusion that subjects are extremely sensitive to environmental cues in the formation of their attitude responses, or "self-descriptions" as Bem prefers to call them. It seems that not only are subject-observers sensitive to such cues, but they may actively (but beyond awareness) seek such cues wherever they can find them. It may be that tact/control subjects, when asked for their own opinions, looked to the context out of which that opinion was to be drawn and found only two cues: free choice behavior and a speech. The hypothesis for this study posits three key factors in this process: the antecedent, the awareness, and the valence. Finding only the antecedent, subjects looked elsewhere to the only other bit of information they had - the speech - and based their responses upon the quality of the speech.

Hypothesis 3b suggests that the evaluations might increase markedly were the speech more persuasive. Such a possibility is worth a future research project. It is interesting to note that subjects in the control group (when levels were collapsed) evidenced much higher attribution-to-others scores (Dependent Variable 1) ($\overline{X}$ = 69.25) than they did when attempting to provide their own responses ($\overline{X}$ = 43.30). The mean difference ($\overline{X}_{diff}$ = 25.95) is quite significant ($p < .10$). These differences raise some interesting points for speculation regarding the possible cause underlying the failure of the simulation condition to reflect the hypothesized interaction. This topic and that of the apparent lack of independence on the part of subjects' attitude responses from environmental cues appear to be interrelated issues. They are the focal point of the concluding essay in Chapter V.

CHAPTER V

SUMMARY/CONCLUSION

This chapter is presented in two sections. Section one provides a summary of the dissertation. Section two stands as a concluding essay on the sufficiency of the Bem self-perception paradigm.

Summary

This dissertation has explored the relationships between Bem's (1965) concepts of manding and tacting behavior as they relate to the attitude attribution process. A three-factor interaction was hypothesized on the basis of a review of the literature in the counter-attitudinal-advocacy research tradition. The hypothesis stated:

> There will be an interaction effect upon subjects' attitude attributions when exposed to a message under differing environmental conditions, as indicated by two levels of antecedent context, consequence awareness, and consequence valence.

A two-level, three-factorial analysis of variance design was utilized in the construction of experimental conditions resulting in eight manipulations: Antecedent (tact/mand), Awareness (foreseen/unforeseen), Valence (positive/negative). A two-level (tact/mand) no-consequence control condition was also utilized. The manipulations were carried out

in a Bem-type simulation wherein observer-subjects were asked to read an account of the experiences of another student involved in an experiment. The experiences constituted the experimental manipulation of the observer-subjects.

The eight experimental groups and two control groups required analysis of 100 subjects randomly selected and assigned to each condition ($n_j = 10$). Three dependent variables were utilized. One related to attributions-to-others. Another served as a check upon the independent variable manipulations. A third dependent variable related to subjects' own evaluations and served as a check upon the simulation condition.

An analysis of variance procedure resulted in a failure to confirm the hypothesis as it related to "other" attribution, but sustained the predicted three-factor interaction in the two instances of observers' own attitude responses.

A discussion of the results examined the sufficiency of the dissonance and incentive perspectives to account for the findings as contrasted to a Bem-type functional analysis. It was concluded that the Bem approach was a superior one from which to view the "attitude change" paradigm. In terms of the counter-attitudinal-advocacy literature, an attempt at clarification of the incentive-dissonance controversy was made in the form of twelve informally stated hypotheses. The overall implication of the discussion of results was that awareness of consequences and the valence of consequences play a more important role in

attitude determination than do antecedent conditions. Lacking information as to the nature of consequences, the evidence was almost wholly on the side of the incentive position.

Further experimentation utilizing the Bem perspective is called for, before we are in a position to fully understand the relationships involved in the antecedent-awareness-valence interaction. While the internal mechanisms of the significant three-factor interaction remain somewhat less than clear, one issue may be said to have stood out above all others: Observer-subjects, when asked for their own opinions, took on the environmental conditions utilized in the experimental manipulations when providing those opinions. This one overriding issue -- the non-independence of observer-subjects' attitude responses -- is the subject of a brief concluding essay.

On the Environmental Determinants of Attitude Responses

A "test" of the Bem simulation methodology was not the major issue for this dissertation. Rather, the simulation methodology was embraced without reservation and utilized to generate an experimental hypothesis which was confirmed in every instance -- except the simulation condition. Bem's argument that observers' attribution processes are functionally equivalent to the process utilized by experimental "real world" subjects was used to develop a "real world" hypothesis. When we took the hypothesis to the "real world" of our observer-subjects' own opinions, the hypothesis was confirmed. When we asked our observer-subjects to attribute an attitude response to

another person, the hypothesis failed. To offer one perspective on why it failed is the purpose of this concluding essay.

Dependent variable two (Speech Evaluation) was included in the experimental procedure as a check on the effective neutrality of the speech. The concern was about subjects' abilities to independently judge the speech. Were they <u>able</u> to judge the speech's quality, persuasiveness, etc., independently of the conditions surrounding it, interpretations of results might have been seriously hampered. The check was conducted by calculating a Pearson-product-moment correlation between dependent variable two (speech evaluation) and dependent variable three (speech persuasiveness). The results indicated a highly significant relationship between observer subjects' evaluation of speech persuasiveness (how much they were persuaded) and their evaluation of the speech ($r= .5826$, $n=80$, $p.<.01$). The relationship between the two variables may be said to be of "moderate" strength, sharing 33.94% of the variance.

Still another indication of the dependency of attitude responses was the evidence that subjects followed the environmental cues provided by the experimental manipulations <u>when responding with their own evaluations</u> about the quality of the speech <u>and</u> as to how persuaded <u>they</u> were by the speech.

Related to this non-independence of responses finding is the failure of the hypothesis in the simulation condition on dependent variable one (consistency attribution). When observer subjects were

asked to attribute an attitude response to the student the three-factor interaction did not occur, but a main effect for the awareness factor and another main effect for the valence factor were revealed. Why?

An extension and modification of Bem's self-perception theory provides one perspective. It is based upon a series of assumptions, which in turn are derived from interpretations of the present data. First, there appears to be a difference between the processes involved in attribution-to-self and attribution-to-others. Second, as Heider (1958) suggested, the processes by which we make attributions to ourselves are not represented in our experience-awareness, but are part of the total context in which that experience takes place. That is, subjects are not aware of the components of the process by which they make self-attributions, but the process is nonetheless there. This assumption is quite consistent with the Skinner-Bem behaviorist model.

The explanation for the difference between the simulation condition and that of the observer-subjects' own rests upon one further assumption which is new but which is derived from the behaviorist model. The assumption is that the processes by which attributions are made to others is more a part of awareness than that by which attributions are made to the self. A brief elaboration will make the basis of this assumption clear.

Skinner (1972) has asserted that much of human society has conditioned its members to be unaware of the environment by emphasizing

concepts such as "autonomy," "free will," "free choice," and the like. Skinner argues from an operant conditioning position that such a thing as "freedom," as it is defined in society, simply does not exist. Freedom is an illusion in that license is given to engage in random behavior in search of that which will control, i.e., reinforcement. There are few institutionalized reinforcements for becoming aware of the environment; quite to the contrary, the reinforcements are often given for ignoring it. This set of relationships fosters the illusion of freedom and personal autonomy.

It would seem however that one tends to be more aware of the environment as it affects <u>others</u>. "Others" are "less free" — to the Smiths, it is not they who keep up with the Joneses, but the Joneses who keep up with the Smiths.

While attribution processes may not be represented in a person's subjective experience (i.e., self-attribution), perhaps they are represented in experiences which involve attribution to others. The implication is that one obtains from the experience of observing others an awareness that all "other's" behavior (as distinguished from one's own) is under <u>some</u> sort of contingency control. Such an awareness would seem to eliminate the necessity for considering the antecedent forced/free factor in the attribution-to-other process. Further, because of the subjective illusion of freedom it is only at the subjective level (attribution to self) that consideration of "free choice/forced choice" becomes an issue.

From this perspective a person may be said to learn to make

"free" choices based upon observations of others choosing between alternatives which the observer is aware of, but the other is not (because the other, too, is conditioned not to question his personal autonomy). Let us consider an example.

When observing another's behavior, the observer engages an assumption that the other's behavior is designed to achieve positive results. That is, the other appears to be in the process of choosing (freely so) from among a number of alternatives. The observer further assumes that since he sees the alternatives available to the other, that the other does also. More realistically, however, the other is behaving in the same way that the observer behaves by acting without awareness of the contingencies to which his behavior is tied. The other believes himself to be free also.

When the observer becomes aware that the other's behavior is tied to a particular reinforcer, the question may be asked "Did he mean to do what he did — is his attitude consistent with his behavior?" For the attributional answer, all that is required for the observer is information about the other's extent of awareness of the possible consequences of the behavior in question. The question is never asked (of the other) by the observer—"Is there an antecedent contingency?"—because one is already assumed: The other will seek the positive and try to avoid the negative. Thus it is only when a negative is encountered that the possibility of attitude-behavior inconsistency occurs to the observer. Two pieces of information are

required for the observer to decide if the other "meant what he did." First he must confirm the valence of the consequence — was it positive or negative? If positive the observer assumes the other meant what he did and will attribute consistency to the other's attitude, since a positive contingency was assumed a priori. If negative, a second question must be asked — was the other aware of the negative potential — since it was assumed that the other was aware. If the other indicates awareness (foreseen) then it is assumed he meant what he did. If unaware (unforeseen), then the observer assumes the other did not mean what he did since he would not have done what he did, had he known.

All that is required for the attribution-to-another is information about the valence and awareness factors. The information in our example is not of any necessarily interactive sense. The factors can function quite independently. This study seems to support this kind of assumption. Foreseen consequences generated significantly higher consistency attributions — the student was declared by the observer to be in support of the advocated increase in course requirements. Unforeseen consequences led to appreciably lower consistency attributions. Positive consequences led to appreciably higher consistency attributions than did negative ones.

Now, let us consider the observer. The observer behaves "freely," just as the other thinks he does. And, because of a subjective preoccupation with the illusion of autonomy, the observer fails to see the contingencies to his behavior. When asked for his

own self-descriptive statement, the observer asks the same two questions asked of the other: What was the outcome (valence) and/or did I know in advance (awareness)? But because of the autonomy issue a third factor is presented in the attribution-to-self process — the antecedent free/forced choice consideration.

This basic difference between attribution processes, assuming it exists, might well explain the failure of our hypothesis in the attribution-to-other condition (dependent variable 1: consistency attribution). In that condition two main effects were evidenced, one each for the valence and awareness factors. In the attribution-to-self conditions the hypothesized three-factor interaction did occur.

The hypothetical explanation presented here would also account for the significant difference evidence between the control condition scores on the two variables (see Chapter Four, p.62). Further, when control group observers were asked to attribute the student's attitude, there was practically no difference between mand and tact level mean scores ($\overline{X}_{mand}$=67.30, $\overline{X}_{tact}$=71.20, $\overline{X}_{diff}$=3.9mm). Without information to suggest any other conclusion, and since by the account just presented the antecedent was of little concern, observers could only say "He did it, I guess he meant it."

When asked for their own responses to whether they had been persuaded by the speech, the control group observers presented a radically different arrangement of scores. Again, there was no significant difference between levels, but with levels collapsed

the overall mean score was significantly lower. This implies that the freedom-of-choice issue played a more significant role in the attribution-to-self situation than it did in the attribution-to-other condition.

This account for the differential findings reported in the study has been offered, not as the only account, but as one explanation in keeping with the Bem functional analysis approach. This approach suggests that a concern for antecedent contingencies is a far more important component of the attribution-to-self process than it is of the process involved in attribution-to-others.

Suggestions for Further Study

The account of differences between attribution processes just presented makes replication of the present study imperative. Validity of the results is of primary future concern. There are several additional considerations, suggested earlier, which should be included in any future replications. First is the matter of the persuasiveness of the speech. Conditions should be compared in which the persuasiveness of the speech is varied. The three-factor interaction should be evidenced in the attribution-to-self conditions and under the varied speech conditions. It is suggested also that the tact/control condition should reflect the persuasiveness of the speech with increased evaluation ratings when the speech is of a more persuasive nature.

The use of the simulation methodology as "functionally equivalent" to the traditional attitude-change-research environment has been questioned (Calder, Ross and Insko, 1973; R. Jones, et al., 1968;

Mills, 1967; Piliavin, et al., 1969). This study suggests that the simulation methodology may be functionally equivalent only with regard to attribution-to-self processes. A replication of the present design comparing "real world" subjects to observer-subjects in both attribution process conditions is called for. The speech persuasiveness issue could be incorporated into such a study. Obviously, however, ethical considerations may prevent use of the particular conditions utilized in the present experiment. Care should be given to maintaining the spirit of the design if different circumstances are utilized in a "real world" manipulation.

A Final Note

Behaviorism, according to Skinner (1972), is not a methodology but a philosophy. In its approach to the explanation of human behavioral phenomena, behaviorism relys upon a concern for the observable behavior and the observable environmental context in which such behavior occurs. The concern is for that which is uniquely and truly and observably human -- behavior. It is, thus, a truly "human-istic" point of view.

The imputation of hypothetical constructs to explain human behavioral phenomena detracts those of us who would strive for this "human-istic" understanding, and results in a view of human behavior which confounds understanding by being couched in terms of the non-observable.

It is from this perspective that Bem (1967b) offered his

theory of self-perception as an alternative to that proposed by dissonance theorists:

> It remains our conviction that the appeal to hypothetical internal states of the organism for causal explanations of behavior is often heuristically undesirable. Such diversion appears only to retard the deflect the thrust of the analysis that is ultimately required (p. 198).

The imputation of either an internal state of dissonance, or an internal biased scanning process to account for subjects' attitude scores would appear, in fact, to have deflected long enough "the thrust of the analysis that is ultimately required."

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APPENDIX A

Experimental Rationale Provided to Subjects (Cover)

"Good Morning (Afternoon, Evening). Professor _____ has given me permission to speak with you at this time. I represent the University of Oklahoma Communication Research Laboratory. We are conducting a survey concerning information-processing. This class, among several others here and on other campuses, has been randomly selected as part of the sampling population to participate in the survey. The packets which are being passed among you are self-explanatory. They contain a description of an event which you should read. At the end, you will find several questions about the event. Please answer them.

Note that your responses are completely anonymous. There is no requirement for identification. If there are any questions, I will be glad to answer them after you have completed the exercise."

APPENDIX B: INDEPENDENT VARIABLES

Antecedent x Awareness

Tact Antecedent

with Foreseen Positive Consequences

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he had been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination. The only limitation was that it could be no longer than one minute.

The experimenter then told the student that the exercise would take the place of his final exam for Speech 101, but that the people in charge of the project were going to award a $50 prize to the person who developed the best argument in support of the proposed change in course requirements.

The student was told that he was, of course, totally free to participate or not to participate in the experiment. The researcher asked the student if he would be willing to prepare the speech. The student said that he would.

Tact Antecedent

with Foreseen Negative Consequences

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he had been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination. The only limitation was that it could be no longer than one minute.

The experimenter then told the student that the exercise would take the place of his final exam for Speech 101. Further, he was told, the grade for the exercise would constitute 50% of his overall course grade. Such a situation, he was told, meant that failing to write an acceptable speech might result in some students failing the course outright.

The student was told that he was, of course, totally free to participate or not to participate in the experiment. The researcher asked the student if he would be willing to prepare the speech. The student said that he would.

Mand Antecedent

with Foreseen Positive Consequences

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he had been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination. The only limitation was that it could be no longer than one minute.

The student was told that he had to participate in the experiment in order to complete the four hour credit requirement of the Speech 101 course in which he was enrolled, even though the experimenters were aware the student had indicated to his instructor that he did not wish to participate in any experiments during the semester. The experimenter told the student that he had been authorized to pay students $20 as an incentive and to compensate for the inconvenience. Thereupon, the student was paid $20, in cash.

The experimenter then told the student that he should be aware that the reason he had to participate was that the exercise constituted his final exam for Speech 101, but that the people in charge of the project were going to award a $50 prize to the person who developed the best argument in support of the proposed change in course requirements.

Mand Antecedent

with Foreseen Negative Consequences

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he had been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination. The only limitation was that it could be no longer than one minute.

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The experimenter then told the student that he should be aware that the reason he had to participate was that the exercise constituted his final exam for Speech 101. Additionally, he was told that the grade for the exercise would constitute 50% of his overall course grade. Such a situation, he was told, meant that failing the assigned speech-writing task might result in failing the course for some students.

Tact Antecedent/Control (No Consequence Information)

and

Tact/UnForeseen

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he had been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was asked to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination.

The student was told that he was, of course, totally free to participate or not to participate in the experiment. The researcher asked the student if he would be willing to prepare the speech. The student said he would.

Mand Antecedent/Control (No Consequence Information)

and

Mand/Unforeseen

Sometime last Spring at Bemian College, a number of Speech 101 students were selected for a research experiment. What follows is an account of the experiences of one of those students.

When the student arrived at the laboratory, he was met by one of the researchers. The researcher told the student that he has been selected to participate in a mass media experiment. This experiment, he was told, was designed to help determine who would be the most persuasive speaker. The student was told that the experiment would try to determine whether students were more persuasive than faculty members. The student was asked to prepare a one minute speech supporting a proposed change in course requirements at Bemian College. Specifically, he was to prepare an argument in favor of increasing the Speech 101 course requirement from its current four semester hours to eight, thus making it a two-semester course. The type of argument, style, supporting evidence, etc., was left to the student's discretion and imagination.

The student was told that he had to participate in the experiment in order to complete the four hour credit requirement in Speech 101, even though the experimenters were aware that the student had indicated to his instructor that he did not wish to participate in any experiments during the semester. The experimenter told the student that he had been authorized to pay students $20 as an incentive and to compensate for the inconvenience. Thereupon the student was paid $20, in cash.

APPENDIX C

The Speech

Here is what the student wrote:

"There has been a lot of discussion on our campus of late over a proposed increase in the requirements for the basic speech course. At present Speech 101 is required of all students for one semester. The proposed change, if put into effect, would increase the requirement to eight semester hours, making it a two semester course.

Now, I realize many students do not like the course - I've heard lots of people say'Aw, its just a crypt course and totally irrelevant' and many would argue for its elimination rather than increasing the required hours. But, I'd like to offer an argument in favor of the proposal.

First of all, it's not a hard course. Next, we never know which among us will ever be called on in our professional lives to make a public speech, so we'd be better prepared if we were called upon, if we had more training. Also, you get to hear some pretty interesting things - if you attend class - that you might not hear anywhere else. So, all in all, I think we should support the proposed increase in course requirements and make Speech 101 required for two semesters instead of just one.

Thank you."

APPENDIX D: INDEPENDENT VARIABLES

Consequences

Foreseen Positive Consequences

Shortly after turning in the speech, the student was contacted by the experimenter who informed him that his speech had been judged as the best. He was told that he was the winner of the $50 prize and that a grade of "A" had been recorded as the final grade. Within the hour, the student had received his cash prize.

Foreseen Negative Consequences

Shortly after turning in the speech, the student was contacted by the experimenter who informed him that his work had been judged "Unacceptable". He was told that a grade of "F" had been recorded for the Speech 101 final exam. The experimenter had checked with the student's instructor and had determined that the "F" would, in fact, cause the student to fail the course.

Unforeseen Positive Consequences

Shortly after turning in the speech, the student was contacted by the experimenter who informed him of the true nature of the experiment. The student was told that while he had not been informed in advance, the speech preparation had actually been the student's final exam in Speech 101. The student was told that the judges had awarded him a grade of "A" and that it would constitute 50% of his course grade. Further, he was told that he had actually been in competition for a $50 prize for the best speech. On the basis of the judges' comparisons, he was told, the prize was to go to him. Within the hour the student had received his $50 cash prize.

Unforeseen Negative Consequences

Shortly after turning in the speech, the student was contacted by the experimenter who informed him of the true nature of the experiment. The student was told that while he had not been informed in advance, the speech preparation had actually been the student's final exam in Speech 101. The student was then told that judges had declared his speech "Unacceptable" and that a final grade of "F" had been recorded, constituting 50% of his course grade. The experimenter had checked with the instructor and had determined that the "F" would cause the student to flunk the Speech 101 course.

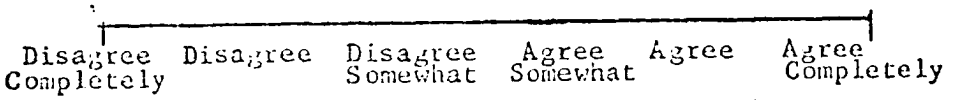
APPENDIX E

Dependent Variable Instruments

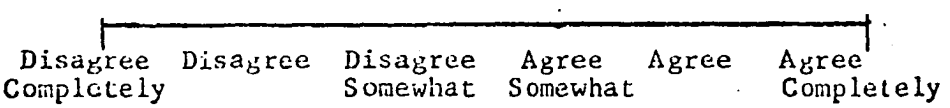
The next day, the student attended the final class session of the semester for his course in Speech 101 at Bemian. Upon entering the classroom, the student was asked to fill out a standard course evaluation sheet, part of which is reproduced below.

Now that you have read about this student, we would like for you to tell us how you think the student filled out the questionnaire. Put yourself in his position and estimate as well as you can the actual opinion of the student. Do this by drawing a verticle line at the appropriate place on the scales below. The Agree-Disagree anchor points are provided as references. Feel free to mark on or anywhere between anchors, marking where you think the student would have marked.

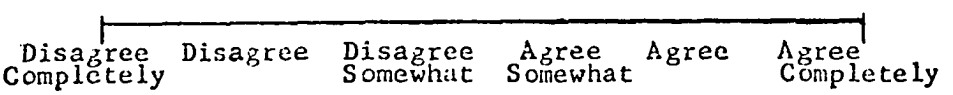
(mask) I enjoyed my experiences while a student in the Speech 101 course at Bemian.



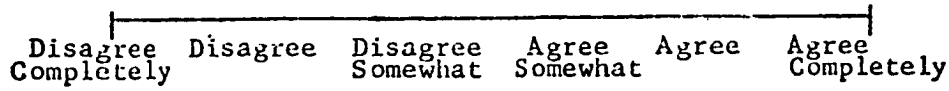
(#1:Consistency) (Attribution) The Speech 101 course requirement of four hours at Bemian College should be increased to eight.



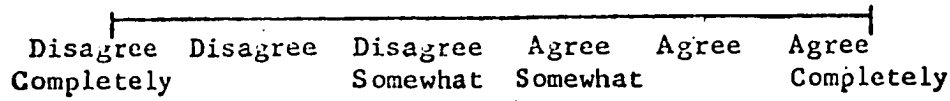
(mask) The class experiments were interesting and fun.



(mask) I would recommend the Bemian Speech 101 course I just completed to a friend.



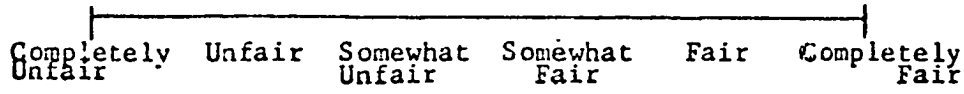
(mask) I really learned how to prepare a good speech.



Now, we would like to ask you some questions about this experiment.

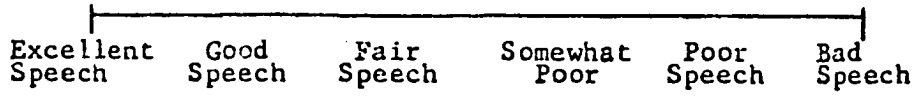
First, do you think the experiment you just read about was fair? That is, how do you feel about that kind of experiment?

(mask)



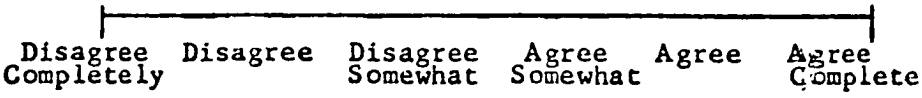
What did you think about the speech that the student wrote?

(#2: Speech Evaluation)



Would the speech have convinced you to vote in favor of increasing the Speech 101 course requirement from four to eight hours? In other words, would you agree or disagree that the speech presented a good case for increasing the course requirements at Bemian College?

(#3: Persuasiveness)



In a few words, what do you think all this reading and these questions have been about?

APPENDIX F: DESCRIPTIVE STATISTICS

Dependent Variables

Table VIII: Descriptive Statistics/Dependent Variables

Dependent Variable One: Attribution of Consistency (attribution-to-other).

Statement: The Speech 101 course requirement of four hours at Bemian College should be increased to eight.

Mean =	51.7900	
N =	100	
Skewness =	0.0952	(p = 0.9212)
Kurtosis =	-2.2697	(p = 0.0219)
Variance =	870.7515	
Standard Deviation =	29.5089	
EX =	5179.0000	
$(EX)^2$=	354425.0000	

Dependent Variable Two: Speech Evaluation (Observer-subjects' own)

Statement: What did you think about the speech that the student wrote?

Mean =	51.1200	
N =	100	
Skewness =	-0.1105	(p = 0.9083)
Kurtosis =	-2.0829	(p = 0.0350)
Variance =	626.2016	
Standard Deviation =	25.0242	
EX =	5112.0000	
$(EX)^2$=	323320.0000	

Dependent Variable Three: Persuasiveness Opinion (Observer-subjects' own)

Statement: Would the speech have convinced you to vote in favor of increasing the Speech 101 course requirement from four to eight hours? In other words, would you agree or disagree that the speech presented a good case for increasing the course requirements at Bemian College?

Mean =	39.7100	
N =	100	
Skewness =	1.6028	(p = 0.1048)
Kurtosis =	-1.5067	(p = 0.1278)
Variance =	461.5236	
Standard Deviation =	21.4831	
EX =	3971.0000	
$(EX)^2$=	203379.0000	

APPENDIX G: DEPENDENT VARIABLE DATA ANALYSIS

Analysis of Variance Cell Means

Table IX: Means for All Effects
Dependent Variable One: Attribution of Consistency (Attribution to Other)

	Means for All Effects		
Antecedent Main	Tact	Mand	
	51.2250	46.0250	
Awareness Main	Foreseen	Unforeseen	
	55.5250	41.7250	$p < .0176$
Valence Main	Positive	Negative	
	60.9250	36.3250	$p < .0002$
Antecedent by Awareness Interaction			
	Tact	Mand	
Foreseen	57.0500	45.4000	
Unforeseen	54.0000	38.0500	
Antecedent by Valance Interaction			
	Tact	Mand	
Postive	65.4000	37.0500	
Negative	56.4500	35.6000	
Awareness by Valence Interation			
	Foreseen	Unforeseen	
Postive	66.6000	44.4500	
Negative	55.2500	28.2000	
Antecedent by Awareness by Valence Interaction			
	Tact	Mand	
Postive			
Foreseen	73.9000	56.9000	
Unforeseen	59.3000	53.6000	
Negative	Tact	Mand	
Foreseen	40.2000	33.9000	
Unforeseen	48.7000	22.5000	

Table X: Means for All Effects
Dependent Variable Two: Speech Evaluation(Observers' Own)

	Means for All Effects	
Antecedent Main	Tact	Mand
	52.8250	50.4750
Awareness Main	Foreseen	Unforeseen
	52.8500	50.4500
Valance Main	Postive	Negative
	50.4250	52.8750
Antecedent by Awareness Interaction		
	Tact	Mand
Foreseen	55.0500	50.6000
Unforeseen	50.6500	50.3000
Antecedent by Valance Interaction		$p.<.05$
	Tact	Mand
Postive	45.3000	60.3500
Negative	55.5500	45.4000
Awareness by Valence Interaction		
	Foreseen	Unforeseen
Postive	50.1500	55.5500
Negative	50.7000	50.2000
Antecedent by Awareness by Valence Interaction		$p.<.05$
Postive	Tact	Mand
Foreseen	52.3000	38.3000
Unforeseen	48.000	63.1000
Negative	Tact	Mand
Foreseen	57.8000	62.9000
Unforeseen	53.3000	37.5000

Table XI: Means for All Effects
Dependent Variable Three: Persuasiveness Opinion(Observers' Own)

	Means for All Effects	
Antecedent Main	Tact	Mand
	39.5750	37.3500
Awareness Main	Foreseen	Unforeseen
	39.2750	37.6500
Valence Main	Postive	Negative
	40.8750	36.0500
Antecedent by Awareness Interaction		
	Tact	Mand
Foreseen	39.9000	39.2500
Unforeseen	38.6500	36.0500
Antecedent by Valence Interaction		
	Tact	Mand
Postive	39.6000	39.5500
Negative	42.1500	32.5500
Awareness by Valence Interaction		
	Foreseen	Unforeseen
Postive	39.7500	38.8000
Negative	42.0000	33.3000
Antecedent by Awareness by Valence Interaction		p.<.01
Postive	Tact	Mand
Foreseen	44.3000	34.9000
Unforeseen	35.2000	49.1000
Negative	Tact	Mand
Foreseen	35.5000	43.6000
Unforeseen	42.1000	23.0000

APPENDIX H: DATA ANALYSIS RESULTS

Antecedent/Control Conditions

Table XII: Scheffe t-test Results for
Mand/No Consequences Control vs. Tact/No Consequences Control*

	Mean		MS_w	$\overline{X}_{diff}$	C.D. $p < .10$
	Tact	Mand			
Dependent Variable One: Attribution of Consistency	71.20	67.30	756.0290	3.90	20.5476
Dependent Variable Two: Speech Evaluation (Observers' Own)	42.00	60.00	604.4403	18.00	18.3725
Dependent Variable Three: Persuasiveness Evaluation (Observers' Own)	38.80	51.80	456.6273	13.00	15.9688

Table XIII: Scheffe t-test Results for
No Consequences Control (Mand + Tact) vs. All Other Conditions

	Mean		N		MS_W	$\bar{X}_{diff}$	C.D. p.<.10
	Control	Other	Control	Other			
Dependent Variable One: Attribution of Consistency	69.250	48.625	20	80	756.0290	20.6250*	11.4864
Dependent Variable Two: Speech Evaluation (Observers' Own)	51.000	51.650	20	80	604.4403	0.6500	10.2705
Dependent Variable Three: Persuasiveness Evaluation (Observers' Own)	45.300	38.463	20	80	456.6273	6.8375	8.9368

* p.<.10