

THE EFFECTS OF COMPETENCE
OF RECIPIENT AND SOURCE
ON RESPONSES TO SOCIAL
INFLUENCE: A REACTANCE
THEORY ANALYSIS

CENTRE FOR NEWFOUNDLAND STUDIES

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The Effects of Competence of Recipient and
Source on Responses to Social Influence: A
Reactance Theory Analysis

by



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A Thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science

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September 1975

St. John's

Newfoundland

Abstract

An experiment was performed to determine the relationship between a person's relative competence and the degree of psychological reactance he experiences in a social influence setting. Forty-two male and thirty-eight female volunteer subjects were paired with a female confederate and given false evaluative feedback following practice at a social judgment task. Four conditions of relative competence were created by crossing two levels (high and low) of subject competence with two levels (high and low) of confederate competence. Two levels of threat (threat and no-threat) were crossed with the four competence conditions to yield a 2x2x2 factorial design. The principle dependent measure was subjects' choice on the influence item.

Comparisons between the threat and the no-threat groups suggested that reactance was limited to those conditions where the subject and the confederate were of equal competence. When the subjects were led to believe that they were either more or less competent than the confederate, they showed no reactance in their choice on the influence item.

In addition, comparisons between internal-control and external-control subjects revealed that internals felt less free in making their choices and showed greater reactance on the influence item. Also, subjects with relatively high self-esteem appeared to be the most sensitive to the threatening nature of the confederate's communication.

Additional analyses were performed on subjects' responses to a final questionnaire to try and explicate the subjects' behavior during the experimental sessions through an examination of their perceptions of their own behavior and of the confederate's behavior.

Results from these analyses are discussed in terms of the relationship of perceived freedom and perceived threat to the arousal of psychological reactance.

Acknowledgements

This thesis was supervised by Malcom Grant. I would like to express my sincere appreciation for both the time he devoted and the patience he showed while this thesis was being prepared. I would like to thank T.E. Hannah, G. Skanes and J.E. Strawbridge for their advice and for the facilities which they made available to me. Thanks are also due Noreen (a most able confederate), Alice (for her help with scoring), and my fellow graduate students at Memorial who provided not only critical commentary at various stages of this research but encouragement and moral support as well.

I would like to thank my parents for their unfailing support over the years, and to acknowledge the debt I owe my Grandfather Wilson without whose guidance and financial support this work would not have been undertaken.

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I.

Introduction

"What is relevant is the fact that people often believe they enjoy freedom, and that this belief appears to affect their behavior in a wide variety of situations...Perhaps perceived freedom is an illusion, but it is an illusion with antecedents and consequents that deserve attention."

I. Steiner (1970)

The concept of freedom has often proved to be a difficult one to incorporate within theories of human behavior. Steiner (1970) in an article devoted to the topic of perceived freedom suggests that, to investigate the variables that affect individuals' perceptions of freedom one need only assume that in any given situation a person believes himself to be free and that this belief may have behavioral consequences. The theory of psychological reactance as formulated by Brehm (1966) attempts to explain some of the antecedents and consequences of subjectively experienced freedom.

Brehm postulated that an individual will become motivationally aroused if a) he believes himself to be free to hold an attitude or to engage in a behavior, and b) he is subsequently faced with a threat to that freedom. This motivational arousal (reactance) will be manifested by the individual moving in the direction of restoring the freedom so threatened.

An example from field research of the operation of reactance might serve to illustrate the basic principles. Mazur (1975) conducted an experiment to test the effect that the introduction of a barrier would

have on the arousal of reactance. He found that housewives who were no longer able to buy their preferred brand of detergent (due to county legislation against phosphates) rated the detergent as more attractive and as more desirable than did a control group of housewives in a neighboring county.

The Theory

Reactance theory is primarily concerned with the ways in which freedom(s) can be threatened or eliminated (as in the above example); the factors that will determine the magnitude of the subsequent motivational arousal; and the behavior that the individual will engage in when he has been aroused (Brehm 1972, p.1).

In his earliest formulation of the theory, Brehm (1966) postulated that the magnitude of reactance aroused in a given situation will be a joint function of: 1) the "importance" of the free behavior to the individual (the more important a free behavior to the individual, the greater the magnitude of reactance aroused); 2) the proportion of the free behavior(s) threatened or eliminated (the greater the proportion eliminated, the greater the magnitude of the reactance aroused); and 3) the strength of the threat (the stronger the threat, the greater the magnitude of the reactance aroused).

In the light of research stimulated by the original formulation (Brehm 1966, Brehm (1972) and Wicklund (1974), in their reviews of reactance theory, added two variables to the list of those that may

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affect the degree of reactance aroused by a threat. These are:

1) implications for future threat; and 2) the "presence of freedom", although as Brehm points out this is in fact not a variable but a condition that is assumed by the major premise of the theory: "Whenever a person believes he has a freedom and finds that freedom threatened or eliminated, reactance is aroused" (p.2).

The major consequence of the arousal of reactance is contained in the definition of reactance itself: "Defined as a motivational state psychological reactance consists of pressure directed toward re-establishing whatever freedom has been threatened or eliminated" (Brehm 1972, p.2). From this definition it follows that reactance should be manifested in an individual's attempts to re-establish the threatened freedom(s) by engaging whenever possible in the prohibited behavior. Such actions taken with possible aggression against the agent(s) of threat have been labelled by Brehm (1972) as "behavioral" manifestations of psychological reactance. These manifestations are, however, qualified by both Brehm (1972) and Wicklund (1974) in that they may, given the particular situation, not arise because of factors inherent in the circumstances surrounding the threat (such as the power of the threatener relative to the threatened etc.). In those cases where "behavioral" manifestations of reactance are inhibited, Brehm has postulated the occurrence of what he calls "subjective effects". These effects are the result of the psychological pressure produced by the individual's "arousal" state. According to Brehm, this pressure produces modifications in perceptions and in judgments. Recalling the

field study cited earlier (Maziz 1975), it is apparent that the housewives, powerless to restore their freedom to purchase their preferred brand, modified their judgments about its effectiveness.

Experimental research conducted within the framework of reactance theory can be divided into three major topic areas: 1) barriers, 2) self-imposed threats, and 3) social influence. These topic areas are representative of the types of threat(s) to freedom which have been employed in experimental investigations of psychological reactance.

Barriers

Wicklund (1974) defines a barrier as:

"any event imposing itself between the person and a free behavior (i.e. one of several behaviors that could be chosen)... provided that it brings about a reduction in reward and/or an increase in effort." (p.7).

Given that a person is free to choose from amongst an array of objects or behaviors, reactance will be aroused if a barrier is interposed between the individual and any one of the array alternatives. If barriers do operate as "threats" to freedom, then two effects are to be expected from the introduction of a barrier: 1) the blocked object will increase in subjective attractiveness and the individual where possible will engage in overt attempts to obtain the object; and 2) as the freedom not to pursue the alternative goals is also threatened, one would expect that these objects would be avoided and derogated.

Research on the effect of barriers within the framework of reactance theory, has concentrated on investigating the theoretical postulates outlined above. Before discussing the findings of this body of

research, it will perhaps be helpful to make a conceptual distinction between barriers and social influence. Social influence constitutes a threat to freedom as perceived intent to influence creates pressure towards compliance. Barriers on the other hand constitute a physical threat in that they "inhibit the person's locomotion or anticipated locomotion toward a goal state". (Wicklund 1974, p.100).

Several investigators have attempted to manipulate "subjectively experienced freedom" by the use of choice, no-choice instructions. Linder, Cooper and Jones (1967) and Sherman (1970) used the classic dissonance paradigm to investigate the effects of insufficient monetary justification (which may be interpreted as a barrier) on the rated attractiveness of choice alternatives. They found that insufficient monetary justification ("barrier") lowered the attractiveness of choice alternatives, within the no-choice conditions, and raised their attractiveness under conditions of choice. Similar results are reported by investigators (Hammock & Brehm, 1966, and Brehm, Stires, Sensenig & Shaban, 1966) who have operationalized the concept of "barrier" by eliminating one of an array of objects. These authors report the finding that reactance is aroused by this "barrier" only in the conditions where subjects expect choice.

Wicklund reports two other experimental manipulations of freedom. Feather (1959b) using "ego-related" conditions versus "chance-related" conditions found a significant enhancement effect when a barrier was introduced in the ego-related conditions. It seems that the person

whose skills determine whether or not he attains a goal responds to barriers in the same way as does someone who is given an explicit choice. Wicklund (1970) also cites evidence to suggest that the variable of "awareness of choice alternatives" may define a free situation in much the same way as does the awareness that there are two sides of an argument in a social influence situation (c.f. Jones & Brehm, 1970).

Evidence which suggests the existence of a positive relationship between the degree of reactance aroused and the conceptual variable of "importance" of freedom has been reported. Importance has been variously defined as: the amount of cognitive overlap between alternatives (Wright 1937); "achievement versus chance oriented" instructions (Feather 1959, Wicklund, Robin & Robin, in Wicklund 1974); and, the relative attractiveness of choice alternatives (Brehm & Rozen 1971, Worchel 1971).

In summary, research on the effects of barriers on the arousal of psychological reactance suggests that there is a positive relationship between reactance and the conceptual variables of "freedom" and "importance" of freedom.

The Special Case of Self-Imposed Threats

Thus far this review of reactance research has been limited to a discussion of threats to, or eliminations of freedom by environmental events that impinge upon the individual. Another possibility arises

in those situations where a threat is self-imposed. Given that an individual is faced with a choice between two attractive alternatives, any movement or decisional commitment toward one should arouse reactance to the extent that the individual's freedom to choose the other is threatened (and of course his freedom not to choose the preferred one). Thus reactance should be aroused as the decision point approaches and by the decision itself. Festinger and Maccoby (1964) in an experimental investigation of pre-decisional cognitive processes obtained this pre-choice preference convergence. In a direct test of the reactance interpretation of this finding, Linder and Crane (1970) and Linder, Wortmann and Brehm (1971) found that where there is a moderate discrepancy in the initial attractiveness of two alternatives, preference for both will converge the closer the time to the actual decision point. Also consistent with this reactance interpretation of decisional cognitive processes is an experiment reported by Walster (1964) in which subjects showed post-decision "regret" (that is, a post-decision preference reversal).

Another special case of reactance arousal was investigated by Brehm and Rozen (1971) in which threat was manipulated by the introduction of a "new" freedom. They hypothesized that increases in freedom would arouse reactance to the extent that old, existent freedoms were threatened. They found that, given the necessary conditions for reactance arousal, old, attractive alternatives increased in attractiveness when an additional attractive alternative was introduced. The

authors interpreted this finding as evidence that an "increase" in freedom increased the conflict and difficulty involved in a choice and hence acted as a threat to or limitation of freedom of choice.

Social Influence

A social influence setting is one in which an individual is exposed to an influence attempt on the part of another person. The attempt to influence may be directed at an attitude or at a behavior and reactance research has attempted to deal with both situations. Most of the social psychological research on social influence paradigms has concerned itself with the delineation of those factors that contribute to positive change (that is in the direction of the message). Reactance theory on the other hand is concerned with the investigation of those factors which will result in boomerang change (that is, change away from the direction of influence or a "reactance response"), or less strongly, in decreased positive change.

Threat is a variable which is common to all of reactance research. Its effects on reactance responses however have rarely been investigated in isolation. Despite this, there is tentative evidence from studies by Weiner (in Brehm 1966), Brehm and Sensenig (1966), and M. Brehm (in Brehm 1966) that there may exist a positive relationship between the strength of a threat and the arousal of a reactance response. Other experiments which appear to support this finding have dealt with the effect of censorship on attitude change (Wicklund & Brehm 1967, Worchel &

Arnold 1974); the effect of increased dependency on helping behavior (Schwartz 1970); the effect of the social power of the communicator on attitude change (Brehm & Brehm, in Brehm 1966); and, the effect of simultaneous threats to attitudinal freedom (Heller, Pallak & Picek 1973, Doob & Zabreck 1971). Indirect evidence of the positive relationship between threat and reactance has been provided by Brock (1965) who investigated the variable of "communicator investment" and by Festinger and Maccoby (1964) and Walster and Festinger (1962) who studied the effects of the focusing of the subjects' attention on the communicator's intent to persuade.

Jones (1970) and Jones and Brehm (1971) (the former using choice, no-choice instructions and the latter using a manipulation of whether or not the subjects were aware that there were two sides to an argument) have investigated the variable of "freedom" in relation to reactance in social influence settings. They have found that, as Brehm (1968) postulated, the "subjective expectation of freedom" in a decisional context is a necessary pre-condition for the occurrence of reactance.

Wicklund and Brehm (1968) and Brehm and Mann (1975) attempted to determine the effects of the "importance" to the individual of the freedom threatened on the arousal of psychological reactance. Wicklund and Brehm defined importance as manipulated competence at decision making and Brehm and Mann defined it as graduated levels of monetary inducement. Collectively their results indicate that the strength of a reactance response is a function of the importance to the individual of the freedom threatened.

Wicklund, Slattum and Solomon (1970) tested the proportion hypothesis (Brehm 1966) (i.e., the greater the proportions of freedom(s) threatened the greater the magnitude of reactance) by threatening their subjects' decisional freedom at different deliberational points over an array of items. They found evidence to suggest that greater reactance was aroused from threats delivered early in a sequence than from those delivered late. They interpret this finding as evidence that reactance is a positive function of the proportion of freedoms (alternatives) threatened.

Sensenig and Brehm (1968) investigated a corollary of the proportion hypothesis which they defined as "implications for future threat". They postulated that in those instances where a threat to a specific freedom carries the implication that additional future freedoms may be threatened, reactance will be increased relative to a threat that carries no such implications. Their results suggest the possibility that this is so. A later study by Andreoli, Worchel and Fogler (1974) provides further support for their interpretation.

In addition to those experiments reported above, investigations of the major propositions of a theory of psychological reactance (Brehm 1966, 1972) have been reported by Worchel and Brehm (1971), Pallak and Heller (1971), Grabitz-Oniech (1971), Heller, Pallak and Picek (1973), Worchel and Andreoli (1974) and Heilman and Garner (1975). These experiments attempted to specify the limitations of reactance theory through an examination of situations where, given the necessary conditions for

their arousal, reactance responses were attenuated or restricted in their expression.

Limitations and Restrictions

A small number of experiments have been reported which have tested the power of reactance theory as an explanation of the psychological processes that occur whenever an individual is faced with a loss in subjectively experienced freedom. Taken together these investigations suggest that there may exist combinations of situational and individual difference variables which will limit the arousal and/or the manifestation of reactance.

Pallak and Heller (1971) have delineated a condition for the non-occurrence of reactance in response to a threat. Using essentially the same attitude change paradigm as Sensenig and Brehm (1968) they too found that negative attitude change occurred within the conditions of low-commitment to future interaction with the confederate as a function of the strength of the threat. This negative change was, however, completely attenuated in the high-future-commitment condition. In addition they report that subjects who did not react, subsequently showed covert derogation of the agent of influence. This result raises the interesting possibility that subjects may, given the particular situation suppress any overt manifestation of reactance that would be indicative of movement away from the direction of influence.

In a later investigation of the circumstances that may attenuate

reactance arousal and thus boomerang attitude change, Heller, Pallak and Picek (1973) manipulated the subjects' perception of intent to influence as well as their perception of threat and found that a reactance response was a function not only of threat but of the agent's expressed intent to influence as well. Significant negative change occurred only when the expressed intent of the agent (high intent) and the threatening message itself (high threat) jointly implied the limitation of the subjects' freedom to adopt their own position. For all other combinations of threat and intent subjects showed a non-significant positive change.

Overall Heller et al.'s results are suggestive on two counts: firstly, results from the intent-no-threat-control subjects indicated support for Brehm's contention that perceived intent to influence may imply limitation of freedom and secondly, negative attitude change appears to result only when the confederate's behavior and motivation jointly imply limitation of freedom. From these results the authors have concluded: "Thus inferences about the motivation for an arbitrary act may be an integral part of the reactance processes." (p.278).

In a series of experiments Worchel and Brehm (1971) were able to demonstrate that, when the freedom to choose an alternative has been threatened by one agent and another agent acts in a manner such that that freedom is restored either directly or by implication, any tendency towards reactance will be reduced and positive influence will result. This study illustrates that in situations involving attempted

social influence there will always be positive forces which will operate towards acceptance of the message and hence the behavioral outcome in such a situation should be a summation of the two opposing forces (i.e., the positive force - compliance, and the negative force - reactance).

Hellman and Garner (1975) compared the compliance rates in subjects' responses to demands when they had been extended a choice in their manner of compliance with the responses of subjects who had been offered no-choice. Reactance (failure to comply with the demands) was manifested only by those subjects who had been given no-choice. The authors also report evidence of a persistent negative affective reaction toward the threatener in both the choice and the no-choice conditions. This finding lends additional support to the conclusion advanced earlier that subjects although they may become motivationally aroused, need not necessarily manifest this arousal in a "tendency to act conversely". In addition, although it appeared that reactance (i.e., its overt manifestation) was dispelled by the introduction of choice in the manner of compliance to the threat, it was also apparent from the data reported that a major consequence of demands was the powerful effect that they had on the individuals' cognitive evaluation of the experimental situation.

Worchel and Andreoli (1974) and Worchel, Insko, Andreoli and Drachman (1974) investigated the attributions of causality that subject and observer-subjects will make in reactance arousing situations. Worchel and Andreoli employed a norm-evoking situation similar to that used by Grabitz-Gniech (1971) and Worchel et al. employed Festinger and

Carlsmith's (1959) "dull task" paradigm. Collectively their investigations highlight the importance of considering the subjects' perceptions of the influence attempt and their perceptions of the influence agent. Their results appear to suggest that reactance may be attenuated by an individual's attributing the causality of the confederate's behavior to environmental pressure. These authors conclude that: "pressure only produces a resistive attitude if no rationale is given for the pressure" (Worchel et al., 1974, p.413).

Cherulnik and Citrin (1974) contrasted the reactions of internal control and external control subjects (as measured by the Internal-External Control Scale, Rotter 1966) to personal and impersonal threats (as defined by Brehm 1966) within the elimination-of-the-third-ranked-preference-alternative paradigm. They hypothesized that internally and externally controlled subjects would differ in their perception of threat. Their results show that internal and external subjects differed in the magnitude of their responses to these two modes of freedom elimination. Internal subjects demonstrated reactance (i.e., an increase in the rated attractiveness of the eliminated alternative) only when the threat or the rationale for the threat was personally directed towards them. External subjects, on the other hand, demonstrated reactance only when the rationale provided was impersonal and beyond the control of the experimenter.

The tentative explanation advanced by the authors for these findings is that internally and externally oriented subjects are differentially

sensitized to modes of control such that "individuals attend more to conditions of control in the modes whose influence they perceive to be dominant or are more sensitized to cues in modes where they expect control to take place" (p.403).

Grabitz-Gniech (1971) started with the working hypothesis that there are two classes of variables that affect behavior in any influence situation: 1) internal factors (these will be the variables which reflect individual differences) and 2) external factors (these will be the variables which are group and/or stimulus variables). She hoped in her study to be able to determine the specificity of the reactance formulation (Brehm 1966) given a norm-evoking social setting (the norm-evoking social situation is taken from the work of Gouldner 1960) and to be able to determine the effect that an individual's level of self-esteem would have on his response to a threat.

Two findings of interest emerged from her study. Firstly, as she had predicted a reactance effect was obtained in the "with out-norm" condition when subjects' responses were compared with those of the subjects in the base-line control group. In the "with-norm" condition however subjects' responses did not differ from those of the control group. Secondly, among those subjects who demonstrated reactance across experimental conditions, there was a significant difference ($p < .10$) between those high and those low in self-esteem. Those subjects who demonstrated reactance scored higher on the scale measuring self-esteem.

These results prompted Grabitz-Gniech to conclude that reactance cannot occur unless a freedom really exists for the individual and

1. Janis and Field's (1959) Feelings of Inadequacy Scale translated into German was used and subjects were divided into high and low self-esteem groups on the basis of an "ex-post-median" split.

further that this subjective experience of freedom will be related to his dispositional level of self-esteem. Although the results of the self-esteem manipulation were only marginally significant it does appear from Grabitz-Gniech's data that personality variables may be important in determining whether or not subjects are experiencing the freedom(s) which are to be threatened.

In a follow-up study Dickenburger and Grabitz-Gniech (1971) report finding that the attractiveness of the influence agent is a significant factor in the determination of whether or not reactance will be aroused following a threat to freedom. Their results suggest that when an influence agent is attractive a tendency to react will be attenuated. They report a further finding that subjects who reacted, derogated the agent of the threat as often as they attempted to re-establish their threatened freedom.

Problem Statement

To recapitulate, evidence has been found which suggests that the manifestation of reactance is a positive function of: 1) the "importance" of the freedom threatened; 2) the "proportion" of the freedom(s) threatened; and, 3) the "magnitude" or the strength of the threat. However, this evidence must be considered in the light of the research on the conditions limiting psychological reactance which were described in the preceding section. It now appears that there are combinations of variables, both individual and situational, which place restrictions on Brehm's (1966)

original formulation of reactance theory.

At its most general level, reactance theory provides for two conditions that must be satisfied in order that an individual become motivationally aroused (i.e., to "react"). Firstly, an individual must perceive or feel that he possesses a specific freedom. Given that this first condition is satisfied, the individual must then be faced with a threat to, or an elimination of, that freedom, and he must perceive the attempted threat as a restriction of his freedom. Now, consider the specific situation where threat is defined as a persuasive communication from a social agent. Here, the freedom in question will be defined as the freedom to adopt an attitudinal position and the response studied will be the individual's (the recipient's) choice of a position.

Variables both of a situational (that is existing in the experimental surroundings, manipulated and otherwise) and of an individual difference nature (that is the subject's personal history) may affect the perception of freedom of choice and the perception of the persuasive communication as a threat. Therefore, the predictive power of reactance theory will depend, at least in part, on its ability to specify what these variables are, and how they are related to perceived freedom and to perceived threat.

A starting point for this type of investigation may be the consideration of what Touhey (1973) has called the "phenomenologies" of the experimental subjects. Brehm (1972) has stated that: "the basic

idea of the theory is that a person is motivationally aroused anytime he thinks ^{*} one of his freedoms has been threatened or eliminated" (p.1). The study to be reported attempted, by considering what subjects' "think", to determine the nature of the relationship of the two hypothetical variables of source and recipient competence to the conceptual variables of perceived freedom and perceived threat.

Evidence from studies of personal causation (deCharms 1968; Kruglanski & Cohen 1973, 1974); perceived freedom (DuCette & Wolk 1973, Harvey & Johnston 1974, Karabenick 1973, and Steiner 1970); expectancy behavior (Crowne & Liverant 1963, Feather & Simon 1971, and Rotter & Liverant & Crowne 1961); and individual difference variables as they relate to persuasibility (Internal-External Control: Blando & MacDonald 1971, Gore 1962, Phares Ritchie & Davis 1968, Ritchie & Phares 1969, Sherman 1973; Self-Esteem: Cohen 1959, 1964, Fitch 1970, and Shrauger & Rosenberg 1970) suggests that a person perceives himself to be free in a given situation only to the extent that he is competent to deal with that situation. According to Wicklund (1974): "the very nature of freedom implies the person's potential to alter his present situation" (p.1). If a person is handicapped through inexpertise, his ability to alter his present situation is severely limited and hence this should lower his subjective expectancies of the probability of successfully obtaining desired outcomes; in other words, the individual should not experience personal freedom.

If feelings of competence or ability are related to the subjective

* emphasis added

experience of freedom in this way, one would predict that in a social influence setting, reactance will be restricted to those subjects who have been made to feel competent with regards to the task at hand.

According to Brehm (1968) "the individual's confidence in his ability to make good judgments on an issue will tend to increase as he acquires more relevant information and as he learns from similar judgments that his decisions are correct or satisfying" (p.279). If Brehm is correct in his assumption, it becomes possible to operationalize competence by providing subjects with practice at a judgmental task and by providing them with evaluative feedback on their performance (success/failure).

This is essentially what Wicklund and Brehm (1968) did. In a 2x2 factorial design they crossed two levels of competence (high versus low) with two levels of threat (high versus low). Competence was manipulated by providing subjects with evaluative feedback on a judgmental task, such that one half of the subjects were led to believe that they had done poorly compared to a significant other (here the agent of the threat) and one half of the subjects were led to believe that they had done well (as well as the significant other). They found as they had predicted that the effect of threat on the subjects' tendencies to react conversely was completely attenuated in the subject-low-competence conditions and that, within the subject-high-competence conditions reactance increased as a function of the level of the threat.

Unfortunately the design of the Wicklund and Brehm experiment can

shed no light on the question of "relative competence" and its relationship to reactance, since the competence of the significant other was not manipulated. It is impossible to judge therefore the importance of the effect that the competence of the source (the agent) of persuasion will have on either a subject's perception of freedom or on his perception of a threat to that freedom.

When the threat to decisional freedom is experimentally defined as a persuasive communication from a social agent the threatening message must (in order to be a "true" threat) be seen as imposing limitations or restrictions on the recipient's freedom to choose from among available alternatives. There is ample evidence in the reactance literature to support the contention that persuasive communications can imply restrictions and hence act as threats to freedom. However, just as the competence of the recipient may define his freedom, it is also possible that the competence of the source may determine the degree to which the persuasive communication is perceived as a threat. The competence of the agent of influence may affect for example, the credibility of his communication. Wicklund (1974) made a similar suggestion in discussing the situation where the influence agent is less competent than a highly competent subject.

"It might be argued that we never bother to listen to or respond to the incompetents, but that the competent communicator catches our attention and brings forth considerable felt pressure to change. It follows that for a competent subject, the threatening note from a fellow competent subject would make for a bigger boomerang effect than would a threatening message from someone with no social judgment ability." (p.49).

It is possible too, that differential processing of a persuasive communication occurs when the agent of influence is competent and the subject is not, and that this differs again from the situation where both the agent and the subject are incompetent.

The present study attempted to assess the importance of the effect of the competence of the subject relative to the competence of the confederate on subjects' perceptions of freedom and on their perceptions of threat. A task was devised that could be construed as a measurement of social perceptiveness and judgment, and a practice session was held in order to create four competence conditions. Threat was defined as a persuasive communication delivered spontaneously by the confederate with no prompting by the experimenter. It was hoped that the wording of the message and the spontaneous manner in which it was delivered would convey the confederate's definite intent to influence the subject's choice.

In addition to examining the relationship of the two manipulated variables of subject and confederate competence to perceived freedom and perceived threat, the relationship of two individual difference characteristics were also examined. The constructs of internal-external locus of control and of self-esteem have both been investigated in attempts directed toward determining the nature of their relationship with different aspects of the social influence process.

When investigating the relationship of internal-external control to positive attitude change under two different social influence

techniques, Sherman (1973) found that internal subjects changed their attitudes in a positive direction more after writing a counter-attitudinal essay, while external subjects changed more after being exposed to a persuasive communication. In a different context, Biando and MacDonald (1971) reported that internally controlled subjects and externally controlled subjects responded differently to varying degrees of social pressure. Their results indicated that externals' attitudes changed in a positive direction regardless of the degree of pressure whereas internals' attitudes changed only when the pressure was high and then in a negative direction.

The relationship of an individual's self-esteem to his experience of cognitive dissonance in an attitude change paradigm has been investigated by Glass and Wood (1968). They found that high self-esteem subjects didn't change their attitudes toward the task, the situation or themselves. The data suggested to the authors that high self-esteem individuals are more confident in the correctness of their decisions than are low self-esteem individuals, and that they are more certain of their ability to exercise control over threatening situations. A similar type of relationship between self-esteem and change has been reported by Nisbett and Gordon (1967). They found that while high versus low self-esteem individuals were significantly superior in the understanding of and the recall of a persuasive message, they were significantly less apt to change their attitudes in compliance with the message.

Examples from the literature on internal-external control and self-esteem led to the decision to obtain pre-measures from all subjects

on Rotter's (1966) Internal-External Control Scale and Janis and Field's (1959) Feelings of Inadequacy Scale. It was hoped in doing this, that the effects that these dispositional characteristics may have upon the perception of freedom and the perception of threat in a social influence paradigm would be clarified.

Further, as the expressed purpose of this study was the investigation of reactance in relation to the phenomenologies of the subjects, an attempt was made, via the administration of an extensive post-experimental questionnaire, to determine exactly how subjects were perceiving specific features of the experimental situation. It was anticipated that the manipulations of relative competence and of threat would affect the way in which the subjects would view their own and the confederate's behavior. This in turn should be reflected in the attributions that subjects make concerning their own and the confederate's ability, skill, sensitivity... and in the amount of subjective freedom they would report experiencing.

Hypotheses Tested

The hypotheses being tested are: 1) that perceived freedom will be a function of an individual's task-related felt competence 2) that perceived threat will be a function of the task-related competence of the influence agent. Specifically, reactance is hypothesized to be a joint function of the competence of the subject and the competence of the confederate by virtue of their relationship to the conceptual variables of perceived freedom and perceived threat.

Within the threat conditions, when the subject and the confederate are both competent (high-high)² the subject should perceive freedom and perceive threat to that freedom, and thus "react". When the subject is competent and the confederate is not (high-low) the subject should perceive freedom but not threat and thus be unaffected by the attempted influence. When the subject is not competent and the confederate is (low-high) the subject should not experience freedom although he may perceive the intent of the confederate to influence him, thus he should be positively influenced by the content of the message. Finally, in the low-low condition, the subject should not experience freedom nor should he perceive the confederate's intent to influence him. Thus a subject in this condition should not experience the motivational arousal that is indicative of reactance.

The predicted effect of the third variable: threat, is straightforward. Without threat (the no-threat competence conditions) no reactance or positive compliance should occur as the definition of reactance is motivational arousal in response to a threat to a behavioral freedom.

2. In the abbreviated labels for the competence conditions the first word refers to the competence of the subject and the second word to the competence of the confederate.

Method

Overview

Subjects were tested individually with a confederate³. They were informed that they were going to be taking a test of social perceptiveness following a practice session (similar types of items). During the practice trials both the subject and the confederate were given false evaluative feedback such that four conditions of competence were created (high subject high confederate, high subject low confederate, low subject high confederate, and low subject low confederate). The confederate then attempted to influence the subjects' choice on the first item of the test for one half of the subjects (threat group) and for the other half she made no attempt at communication (no-threat group).

Measures were obtained on the subjects' expectations of success, choice and confidence in their choice on the first test item, and finally of subjects' attributions of confidence and ability to both themselves and to the confederate (designated experimental partner).

Design

The design was a 2x2x2 factorial with two levels of subject competence (high-low), two levels of confederate competence (high-low) and two levels of threat (threat-no-threat). A total of 80 subjects were assigned randomly to each of the experimental conditions such that there were 10 subjects per condition.

3. A female undergraduate student served as the confederate in all of the experimental sessions.

Subjects

The subjects were 42 male and 38 female undergraduate students from the Memorial University Introductory Psychology classes. All of the subjects had been administered the Feelings of Inadequacy Scale (Janis & Field 1959) and the Internal-External Control Scale (Rotter 1966). (refer to, Appendix A) approximately three to four weeks before the first experimental sessions as part of a general testing session. Subjects were contacted by telephone for the experimental sessions and asked to participate in a study of social perceptiveness and judgment for which they would be paid \$2.00 for about 40 minutes of participation.

Procedure

The subjects arrived individually at the laboratory and were met by the experimenter. They were told that another subject would be arriving shortly and they were asked to wait. When the confederate arrived both were seated at a table with a screen between them obstructing their view of each other.

The experimenter explained that the experiment was part of a research project designed to investigate social perceptiveness (described as an important skill in everyday life). The purpose of this particular experiment was to determine how sensitive people were by seeing if they could predict how a person had answered a statement after they had seen his or her answers to two similar statements (for the complete verbal instructions the reader is referred to Appendix B).

The subjects were then informed that as the test was probably different from anything they might have previously done, they would both be given 10 practice trials on very similar types of items (refer to Appendix C for both the practice and the test forms) and that after each of their answers they would be told if they were right or wrong on that question. In addition, after the completion of all 10 practice questions they would be informed of their total score in comparison to others who had previously completed the practice test.

The practice question number was announced and the subject and the confederate were asked to indicate their answers to the questions by holding up one of two index cards, one labelled "true" and the other "false". Success and failure feedback was given via two pairs of lights, labelled right and wrong which were mounted on a table in front of the subject and the confederate. Although the subject and the confederate were unable to see each other's responses, both pairs of lights could be seen from either side of the table. The confederate looked down at the table while the feedback was delivered and consequently she was unaware of the relative competence condition to which the subject had been assigned.

Subject and confederate high competent. One random sequence for the subject and a different one for the confederate were determined beforehand such that both the subject and the confederate answered eight of the 10 items correctly (the actual sequences of right and wrong used for each of the 10 practice items for each of the conditions are presented in Appendix C). Upon their completion of the 10 practice

items the subject and the confederate were each presented with both of their scores circled, and labelled with their names, on a sheet of paper which showed fictitious percentile standings (Appendix C). 8/10 was labelled EXCELLENT -- Top 10%.

Subject and confederate low competent. Responses for four of the 10 items were signalled correct and six incorrect for both the confederate and the subject. The subject and the confederate were shown their total scores circled and labelled as above. 4/10 was labelled NOT VERY GOOD -- Bottom 45%.

Subject high and confederate low competent. Responses for eight of the 10 items were signalled correct and two incorrect for the subject while the responses for four of the 10 items were signalled correct and six incorrect for the confederate. The subject and the confederate were shown their total scores circled and labelled as above.

Subject low and confederate high competent. Responses for four of the 10 items were signalled correct and six incorrect for the subject while the responses for eight of the 10 items were signalled correct and two incorrect for the confederate. The subject and the confederate were shown their total scores circled and labelled as above.

Following the practice trials, an attempt was made to determine if the subject had understood the feedback. The subject and the confederate were each given a form (Appendix D) that asked them to list the number of correct judgments they had made and the number of correct judgments their experimental partner had made. In addition, they were asked to predict how well they expected to do on the 10 test items

and how well they expected their partner to do. They then completed a second page of the form which contained the five items from the Janis & Field Feelings of Inadequacy Scale with the best test-retest reliability as determined by Skolnick and Shaw (1970).

The experimenter then distributed the test forms (Appendix C) and asked the subjects to read the instructions. When the experimenter had ascertained that there were no difficulties in understanding the task, she got up and prepared to leave the room explaining that as there was no time limit set for this test, she would like them to consider each set of statements very carefully.

Threat condition. After the experimenter had left the room, the confederate appeared to consider the first item and then remarked (in a very pointed fashion) "Oh this is obvious; the answer to number one is definitely true". She then continued to work at the test with no further comment.

No-Threat condition. After the experimenter had left the room, the confederate and the subject worked at the task. The confederate engaged in no conversation with the subject.

The experimenter observed the interaction between the confederate and the subject through a one-way mirror. When the subject and the confederate appeared to be considering the final item, she returned with a final questionnaire (Appendix D) and the subject payment slips. Both the subject and the confederate were then asked to complete the final

4. Number 1 was chosen as the influence item on the basis of the results of a pilot study. These results indicated that of the ten proposed test items, number 1 was seen as definitely true more than any other was seen as either definitely true or definitely false. Further, the subjects' rating of confidence in their choice was higher for this item than for any of the remaining nine items ($\bar{X}=31.9$ on a 40-point scale).

questionnaire which was designed to check the effectiveness of all of the manipulations and to assess the subjects' perceptions of the confederate's behavior on several dimensions (ability, confidence, intent to influence, similarity etc...).

Upon completion of this questionnaire, the subjects were probed for suspiciousness and thoroughly debriefed. In particular, the subjects in the low-competence conditions were assured that their performance was not a reflection of their true social perceptiveness or sensitivity. Finally, subjects were thanked for their participation and paid \$2.00.

Measures

Three different sets of measures were obtained from each subject.

1. Two measures of individual difference variables (Feelings of Inadequacy, Internal-External Control) were obtained from each subject prior to the experimental sessions.
2. The dependent variables of the subjects' choice on the first test item (the influence item) and of his confidence in that choice (on 40-point rating scales).
3. Subjects responses to the final questionnaire. Among the questions asked were those designed to check the effectiveness of the manipulations of subject competence, confederate competence and of threat. Also included were questions dealing with the subjects' perceptions of his own behavior and ability and his perceptions of the ability and

behavior of the confederate. (The reader is referred to Appendix D).



Results

Manipulation Checks

The 20-question form (refer to Appendix D) that was administered to all subjects at the end of the experimental sessions contained a number of items that had been specifically designed to check on the manipulations of subject and confederate competence and on the manipulation of threat.

Subject competence. In response to the question (on the final questionnaire) "How socially perceptive do you think you are?", subjects rated themselves higher in the high-competence treatment conditions than when in the low, regardless of the level of confederate competence or of threat ($2 \times 2 \times 2$ analysis of variance, $F=10.596$, 1 and 72 d.f., $p<.005$). A second question "How difficult did you find the task?" also differentiated between the high-and the low-competence subjects ($F=5.329$, 1 and 72 d.f., $p<.025$) with subjects in the high-competence conditions reporting finding the task easier than subjects in the low-competence conditions.

In addition subjects had been asked, immediately following the practice test, to indicate the number of questions that they had answered correctly and the number of questions that the confederate had answered correctly. All of the subjects were able to accurately report their scores and the confederate's scores.

A second page of this form contained the five items from the Feelings of Inadequacy Scale (Janis & Field 1959) which had the best test-retest reliability (as determined by Skolnick & Shaw, 1970). Subjects responses to these five items were compared with their earlier responses

to the same items in the preliminary testing session. The possibility that the manipulations of competence might have affected subjects' self-esteem was investigated by means of a 2x2x2 (repeated measure) analysis of variance (Winer, 1972, p.559-567). Although there was an overall tendency for subjects to score higher on the second testing ($F=7.46$, 1 and 76 d.f., $p<.01$), the competence manipulations produced no significant main effects, or interactions.

Confederate competence. In response to the question "How socially perceptive do you think your partner is?", higher ratings of perceptiveness were obtained from subjects in the high-confederate-competence conditions than from those in the low-confederate-competence conditions ($F=11.883$, 1 and 72 d.f., $p<.001$). Subjects also thought that the confederate found the task easier when she was high in competence than when she was not ($F=4.099$, 1 and 72 d.f., $p<.05$).

Threat. Finally, in response to the question "Do you think that your partner was deliberately trying to influence your choices?", subjects thought that their partner was trying to influence them more in the threat conditions than in the no-threat conditions ($F=27.436$, 1 and 72 d.f., $p<.0001$). No significant results were obtained from an analysis of variance on subjects' responses to the question "Do you think that your partner was trying to help you?".

The overall results from these analyses indicate that the manipulations of subject and confederate competence and the manipulation of threat were successful. Differential success and failure feedback although not affecting subjects' basic self-esteem does seem to

5. Threat was not included as a factor as this check was made prior to the introduction of the threat manipulation.

have induced high and low feelings of competence at the chosen task. With regards to the manipulation of threat, the forceful statement of a preference by the confederate appears to have conveyed her definite intent to influence.

Reactance Variables

It was expected that a reactance response (that is movement away from the direction of attempted influence) would be a function of both subject and confederate competence. The subjects' choice on question 1 of the test (the influence item) was used as the principle index of the manifestation of reactance. In addition to indicating their choice of the correct answer to question 1 of the test subjects also had been asked to indicate their confidence in their choice (both of these on 40-point rating scales).

Choice on question 1. A 2x2x2 analysis of variance (Balanova 5, 1968) was computed. The summary table for this analysis is reproduced in Table 1. The only result to emerge from this analysis was a marginally significant three-way interaction ($F=2.583$, 1 and 72 d.f., $p=.10$).

No specific predictions were made concerning subjects' choice on question 1 in the no-threat conditions as the definition of reactance is motivational arousal in response to a threat to a behavioral freedom. An internal analysis uncovered no significant differences between means (the cell means are reproduced in Table 2a). For comparative purposes, each of the four no-threat-competence conditions was treated as a control for each of the four threat-competence conditions.

* All of the exact probability levels reported herein were computed with the aid of the computer subroutine outlined in D.J. Veldman, Fortran Programming for the Behavioral Sciences, New York, Holt, Rinehart and Winston, 1967, p.129-131.

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
<u>Between</u>				
Subject Competence	1	.1125	.1125	.003
Confederate Competence	1	3.6125	3.6125	.099
Threat	1	13.6125	13.6125	.372
Subject Competence x	1	6.6125	6.6125	.180
Confederate Competence x	1	43.5123	43.5123	1.188
Threat x	1	3.6125	3.6125	.099
Confederate Competence x	1	94.6124	94.6124	2.583
Threat x	1			
Subject Competence x	1			
Confederate Competence x	1			
Threat x	1			
<u>Within</u>				
Error	72	2637.69	36.6346	

Analysis of variance summary table for subjects' choice on test question 1 in eight experimental conditions.

TABLE 1

TABLE 2(a)

Mean choice on test question 1
in eight experimental conditions

THREAT GROUPS			
	High Confederate Competent	Low Confederate Competent	
High Subject Competent	11.4 ^a	7.8	
Low Subject Competent	7.1	9.0	
NO-THREAT GROUPS			
	High Confederate Competent	Low Confederate Competent	
High Subject Competent	6.5	8.1	
Low Subject Competent	9.5	7.9	

TABLE 2(b)

Mean confidence ratings on test question 1
in eight experimental conditions

THREAT GROUPS			
	High Confederate Competent	Low Confederate Competent	
High Subject Competent	31.5 ^b	27.0	
Low Subject Competent	29.9	30.5	
NO-THREAT GROUPS			
	High Confederate Competent	Low Confederate Competent	
High Subject Competent	31.5	29.9	
Low Subject Competent	25.2	27.3	

a. The higher the score the further the mean scores are from the point advocated by the influence message.

b. The higher the mean the higher the rated confidence in choice.

When the appropriate comparisons were made, it was found that subjects in the high-high conditions differed significantly in their choice on the influence item ($t=1.82$, 18 d.f., $p<.05$)⁶ with the responses of the subjects in the high-high-threat condition being further away on the scale, from the point advocated by the influence message. All of the other comparisons between the threat and the no-threat conditions were non significant.

Within threat, an inspection of the cell means reveals that tendency towards reactance is strongest in the high-high condition. The results of the comparisons between means substantiates this. High-competence subjects showed somewhat more reactance when the confederate was high (high-high condition) than when she was low (high-low condition), $t=1.43$, 18 d.f., $p<.10$.

Confidence rating on question 1. The same procedure was followed in the analysis of the confidence ratings. A $2 \times 2 \times 2$ analysis of variance (Balanova 5, 1968) was computed. This yielded a significant subject competence by threat interaction ($F=3.948$, 1 and 72 d.f., $p<.05$) and a subject competence by confederate competence interaction ($F=2.621$, 1 and 72 d.f., $p=.10$). The cell means are presented in Table 2 (b).

An inspection of the table of means reveals that within the threat conditions, confidence is highest in the high-high and the low-low-competence conditions. An internal analysis of means within the threat conditions indicates a tendency for subjects' confidence in their choice to be higher in the high-high condition and the low-low condition ($t=1.60$, 18 d.f., $p<.10$ for high-high versus high-low, and $t=1.25$, 18 d.f.,

6. All values of t are one-tailed unless otherwise stated, due to the directionality of the predictions.

$p < .12$ for low-low versus high-low).

Within the no-threat conditions, subjects' degree of confidence in the accuracy of their choice parallels the competence manipulation. When comparisons were made, it was found that subjects were more confident in the high-high and the high-low conditions (for high-high versus low-high, $t = 2.55$, 18 d.f., $p < .01$ and, versus low-low, $t = 1.69$, 18 d.f., $p < .10$; for high-low versus low-low, $t = 1.63$, 18 d.f., $p < .10$).

Between the threat and the no-threat conditions, subjects in the low-high condition rated their confidence in their choice significantly higher than did their counterparts in the no-threat condition ($t = 1.72$, 18 d.f., $p < .05$); this tendency was also true of the subjects in the low-low conditions ($t = 1.18$, 18 d.f., $p < .13$).

Individual Difference Variables

In the problem statement, it was hypothesized that internal-external control and self-esteem might be related to (a) the perception of freedom of choice and (b) the perception of threat. To investigate this possibility, the responses to the questionnaire items, 9 (subjects self-reported feeling of freedom) and 17 (subjects rated influence) were chosen as the dependent measures. Multiple regression equations were generated with these two questions as the dependent variables and with subjects' scores on the two individual difference variables and subject and confederate competence (coded for effect) as the predictor variables. For the purpose of this analysis, subjects were divided into the threat and the no-threat groups.

7. The main effects and the interactions were coded by effect according to Kerlinger and Pedhazur (1973, p.121-125).

For the no-threat group, neither of these equations accounted for a significant proportion of the variance in subjects' responses either to questionnaire item 9 or to questionnaire item 17. Further, none of the predictor variables alone were significant contributors to the total variance.

For the threat group however, the full model equation for the dependent variable, questionnaire item 9, was significant ($F=3.156$, 4 and 35 d.f., $p<.05$), and accounted for 26.5% of the total variance. On close inspection, it is apparent that the variable of internal-external control is accounting for half of this variation (13%) and is significant as a single predictor ($F=10.043$, 1 and 35 d.f., $p<.005$) while none of the other variables entered were. The beta weight for this variable indicates that the more internally controlled subjects felt less free than the more externally controlled subjects.

The full model equation for the dependent variable, questionnaire item 17, was non significant ($F=1.694$, 4 and 35 d.f., $.25>p>.10$) but the variable which consisted of the subjects' scores on the Feelings of Inadequacy Scale approached significance as an individual predictor ($F=3.458$, 1 and 35 d.f., $.10>p>.05$) accounting for 5% of the total variation attributable to that question. The beta weight of this variable indicates that the higher the subjects were in self-esteem the more they perceived threat (i.e., the more they felt that the confederate was deliberately trying to influence them).

Further Analyses

Responses on the post-experimental questionnaire. In addition

to the questions that had been designed as manipulations checks, a number of other questions yielded significant F ratios (with 1 and 72 d.f.) when subjects responses were analyzed (2x2x2 analysis of variance, Balanova 5, 1968). Results from these analyses are presented in Tables 3a,b,c.

Subjects appear to have been strongly influenced not only by the manipulations of competence but by the manipulation of threat. Questions which dealt with subject confidence, confederate confidence and skill, subject and confederate sensitivity to others, and task difficulty all yielded responses consistent with the manipulations of competence.

The threat manipulation too appears to have affected subjects' responses to these questionnaire items. Subjects, when they had been exposed to an influence attempt, expressed more confidence in their judgments ($F=3.681$, 1 and 72 d.f., $p=.05$); felt that the task was more important ($F=4.138$, 1 and 72 d.f., $p<.05$); felt that they had tried harder to do well ($F=3.118$, 1 and 72 d.f., $p=.07$); and, felt, when the confederate was as competent as they were, that they were more sensitive to the feelings of others ($F=2.694$, 1 and 72 d.f., $p=.10$).

Subjects' perceptions of the confederate were apparently strongly influenced by both their competence in relation to one another and by threat. It was found that the confederate was attributed with more confidence not only when she was highly competent ($F=13.082$, 1 and 72 d.f., $p<.001$) but also when she had made an attempt to influence the subjects' choice ($F=7.602$, 1 and 72 d.f., $p<.01$). Additionally the confederate reportedly found the task easier when she was more competent than the subjects were ($F's$ 4.099, 1 and 72 d.f., $p<.05$) and when she

TABLE 3(a)

Questions which dealt with subject self-perception.

	a		AxB	AxC	BxC	AxBxC	
	A	B					
1. "How sensitive do you think you are to other's feelings?"	2.21	.09	.40	.40	2.69*	.17	.20
2. "How socially perceptive do you think you are?"	10.60	.34	.01	1.39	.16	1.25	1.54
3. "How confident do you feel about your choices on the test items?"	16.93	.89	3.68**	.25	.41	.02	.13
4. "How difficult did you find the task?"	5.33	.23	1.65	.03	1.05	1.05	.80
5. "How much do you feel that doing well depends upon luck?"	7.46	4.02**	.01	.40	.59	1.07	.34
6. "How important to you was the Test?"	1.21	.05	4.14**	1.92	.67	1.33	1.52
7. "How hard did you try to do well?"	.07	.99	3.12*	.99	.01	1.21	.01
8. "How clear did you find the material used?"	.01	.16	.08	.03	.03	.01	.62
9. "How free did you feel to make the choices that you did on the Test?"	2.62	.63	.43	.01	.02	.01	.98

a

A = Subject competence, B = Confederate competence, C = Threat.

* p .10 ** p .05

*** p .01 **** p .001

TABLE 3

14.

TABLE 3(b)

Questions which dealt with subject perceptions of confederate

	A	B	C	AxB	AxC	BxC	AxBxC
10. "How confident about (his) her choices do you think your partner is?"	1.94	13.08	7.60	.25	.90	1.20	.06
11. "How difficult do you think your partner found the Test?"	4.10	4.10	3.36	1.40	.26	.13	.11
12. "How important do you think your partner felt the Test was?"	.40	.18	.49	1.79	.17	1.50	.12

TABLE 3 (cont.)

TABLE 3(c)

Questions which dealt with subject perceptions of confederate (personal opinions)

	A	B	C	AxB	AxC	BxC	AxBxC
13. "How sensitive do you think your partner is to other's feelings?"	2.70	2.70	1.17	5.16	.01	.10	.35
14. "How socially perceptive do you think your partner is?"	.74	11.88	.01	1.86	.01	1.59	.01
15. "How hard do you think your partner tried to do well?"	.22	.56	.70	.43	.03	1.83	2.61
16. "How skillful do you think your partner is?"	3.18	10.55	1.06	.45	.98	4.92	.08
17. "Do you think that your partner was deliberately trying to influence your choices?"	1.94	1.26	27.44	.02	.47	2.37	.01
18. "Do you think that your partner was trying to help you?"	.73	.45	.61	2.06	.28	.79	.67
19. "How similar do you think that you and your partner are?"	.04	.43	.14	12.11	.14	1.66	.43
20. "If you got to know your partner better, do you think it likely that you could become good friends?"	.15	2.10	.31	3.32	4.56	4.44	.87

TABLE 3 (cont.)

attempted influence ($F=3.355$, 1 and 72 d.f., $p=.07$). She was also thought to be more skillful when she was high in competence under threat than under no-threat conditions and less skillful when she was low in competence in the threat rather than in the no-threat conditions ($F=4.92$, 1 and 72 d.f., $p<.05$).

Correlational analyses. An attempt was made, by assessing the interrelationship of all the responses obtained from the subjects (both before, during, and after the experimental sessions) to further clarify the effects of the competence and of the threat manipulations. Multiple correlation matrices were computed with all 80 subjects combined and then with the subjects divided into the threat and the no-threat groups. This division was made as the variable of threat seemed to present a logical and theoretically relevant means of distinguishing amongst the subjects.

When the responses of all 80 subjects were considered, a significant correlation was obtained for subjects choice on question 1 and subjects rated confidence for question 1. ($r=-.319$, 78 d.f., the lower the choice, the more confident the subjects were, $p<.01$). This is changed however when the subjects are divided into the threat and the no-threat groups. The relationship of rated confidence on question 1 and choice on question 1 is significant only for the no-threat subjects ($r=-.506$, 38 d.f., $p<.002$) and the difference between the obtained correlation from the no-threat and the threat subjects is significant ($z=2.09$, $p<.01$). This means that for the no-threat subjects a low choice on the influence item was positively related to a high rating of confidence in choice, and the reverse was true for the threat subjects.

The other two items that correlated significantly with subjects' choice on question 1 when all of the subjects were considered were:

1) subjects' sensitivity (the lower the choice, the more sensitive the subjects reported feeling, $r = -.299$, 78 d.f., $p < .01$); and 2) the confederate's attributed difficulty at the task (the lower the choice the less difficult the confederate was thought to have found the task, $r = .233$, 78 d.f., $p < .05$). When the subjects were divided into the threat and the no-threat groups, it was found that reported sensitivity to others and attributed confederate difficulty at the task were significantly correlated with subjects' choice on the influence item only for the threat subjects.

On the basis of the differential pattern of relationships which was observed in the correlation matrices for the threat and the no-threat subjects, a number of specific questions were formulated and tested by means of a discriminant analysis and a multiple regression analysis (both from Statistical Packages for the Social Sciences, 1970).

The first question formulated was whether or not it would be possible to describe a discriminant function that would maximize the distinctions between the threat and the no-threat groups based on all available subject responses. A discriminant analysis (Nie Hull Jenkins Steinbrenner & Bent 1970) was computed and the variables consisted of all of the subjects' responses to the varied measures and also the manipulated variables (coded for effect) of subject and confederate competence.

After all of the variables had been entered in the order of their

importance⁸ as discriminators between the threat and the no-threat groups, there was a list of six variables that significantly discriminated among the two groups and which accounted for 40% of the total variance. The F ratio for this equation was highly significant ($F=8.09$, 6 and 73 d.f., $p<.001$). The six variables were responses to questionnaire item 17 (the influence check), questionnaire item 6 (importance of the task to the subjects), questionnaire item 3 (subjects' overall level of confidence), questionnaire item 7 (how hard the subjects tried to do well), questionnaire item 13 (how sensitive the confederate was thought to be), and questionnaire item 11 (how difficult the confederate was thought to have found the task). The coefficients in the discriminant function indicate that the questionnaire items which differentiated subjects on the basis of threat by simple analyses of variance were very good predictors of group membership.

These results indicate that membership in the group designated "threat" versus that designated "no-threat" can be predicted by examining the responses of the subjects to these six questionnaire items. Further group membership may be explicated by the knowledge that, for threat: scores are high on the influence item and on all of the other discriminant items with the exception of item 13, here scores are low (low sensitivity to others is attributed to the confederate).

The second question formulated was whether or not choice on the influence item was strongly related to any of the other measures obtained from the subjects. To answer this question a stepwise

8. This is determined by choosing the variable with (a) the highest F ratio, (b) which when partialled has the highest multiple 'r' with the groups and (c) which gives the greatest decrease in the ratio of within to total variance.

multiple regression was computed (Nie et al., 1970) for the threat and the no-threat groups separately. With choice on the influence item as the dependent variable, a criterion of the seven best predictors was specified from the entire variable list (all responses of the subjects to the questionnaire items, their rated confidence, pre-measures and the manipulated variables coded for effect). The abbreviated results are presented in Table 4.

For threat subjects, the full model equation was significant ($F=4.28$, 7 and 32 d.f., $p<.005$) and accounted for 48% of the variance. The significance of the individual beta weights indicates that five of these independent variables were good predictors of choice on the influence item. These were in order of their importance: questionnaire item 1 (subjects' sensitivity, $F=7.58$, 1 and 32 d.f., $p<.01$); questionnaire item 11 (confederate's difficulty with the task, $F=4.61$, 1 and 32 d.f., $p<.05$); subjects' scores on the internal-external control dimension ($F=5.96$, 1 and 32 d.f., $p<.025$); the interaction variable of subject and confederate competence ($F=4.17$, 1 and 32 d.f., $p<.025$); and questionnaire item 18 (confederate's trying to help, $F=5.01$, 1 and 32 d.f., $p<.05$). The direction of the signs indicates that a high choice on test item 1 (i.e., choice away from the direction of influence) was significantly related to subjects' reports of: feelings of low sensitivity to others, the confederate having difficulty with the task; to manipulated competence (condition of subject and confederate both high and both low); and to high feelings of internal control.

For no-threat subjects, the total equation accounted for 41% of

9. This is determined by the percentage of the total variance attributable to the influence of that variable alone.

TABLE 4

Stepwise Regression Summary Table

THREAT (N=40)

Dependent Variable...Choice On Influence Item

Variables In	Multiple R	R Square	Beta
Questionnaire item 1	.3684	.1357	-.3836
Questionnaire item 11	.4953	.2453	.2817
Internal-external control	.5800	.3365	-.3217
Subj. Competence x conf. Competence	.6142	.3772	.2816
Questionnaire item 18	.6512	.4241	.3206

NO-THREAT (N=40)

Dependent Variable...Choice On Influence Item

Variables In	Multiple R	R Square	Beta
Confidence rating	.4962	.2462	-.5780
Questionnaire item 4	.5590	.3123	.3204
Questionnaire item 1	.5943	.3532	-.3191

Note : The tables are abbreviated from the SPSS printout summary table and only the significant predictors from the full model are included.

the variance associated with choice on test item 1 and was significant ($F=3.15$, 7 and 32 d.f., $p<.025$). The individually significant predictors were confidence in choice for question 1 ($F=12.67$, 1 and 32 d.f., $p<.005$), questionnaire item 4 (subject self-rated difficulty at the task, $F=3.76$, 1 and 32 d.f., $p<.10$), and questionnaire item 1 (subject self-rated sensitivity to others, $F=3.23$, 1 and 32 d.f., $p<.10$). The beta weights indicate that a high choice on question 1 was related to the subjects' rating confidence in their choice low, to the subjects reporting having had difficulty with the task, and to the subjects reporting low feelings of sensitivity to others.

Discussion

Results from an analysis of subjects' responses to the influence item were in the predicted direction. A marginally significant interaction ($p=.10$) was observed between the variables of subject competence, of confederate competence, and of threat. Specifically it had been predicted that threat would arouse reactance in highly competent subjects when the confederate was also highly competent, but have no effect when she was not. When the subjects were low in competence, it had been predicted that threat would not arouse reactance. This is essentially what was found although subjects' responses in the low-low condition tended in a negative direction.

It will be recalled that Wicklund and Brehm (1968) reported evidence which suggested that subjects' tendencies to act conversely in response to threat increased as a function of the level of threat (low to high) within their subject-high-competent conditions and that these tendencies were completely attenuated in their subject-low-competent conditions. The data from the cells of the present study which are identical to those of Wicklund and Brehm (i.e., the high-high, and the low-high-threat conditions) support this finding.

It was hypothesized that subjects must perceive both freedom and threat (in that order) if reactance is to be aroused by a persuasive communication. If the competence of the subject is positively related to his experience of freedom and the competence of the source is positively related to the subjects' perception of threat, it would follow that the high-high-threat condition should

be the only condition where reactance is aroused, as it is the only condition where both freedom and threat will be perceived by the subjects. In the present study, it was only in the high-high-competence condition that a significant reactance response was found.

Wicklund (1974) advances an explanation for the effect that the level of both subject competence and confederate competence should have on reactance for the specific situation where the "influencer" is less competent than the "influencee". He has suggested that personal experience teaches us the futility of paying attention to incompetents and that therefore a message from an incompetent source is apt to be completely disregarded. This explanation is supported by the present findings in so far as the responses of the subjects in the high-low condition are concerned. What Wicklund has suggested, is that when one is competent oneself, a message from an incompetent source will not be perceived as a threat and hence no motivational arousal will occur.

This line of reasoning can be extended to account for the responses of the subjects who were in the low-high condition. Here, since the subject isn't competent, he cannot experience decisional freedom (i.e., the freedom to reject an influence attempt and to make his own choices) and cannot ignore the informational content of the highly competent confederate's message. It follows, then, that the subject should be positively influenced by the message. This is what was found here.

Although not significantly, subjects' responses on the influence item showed a trend towards a "reactance response" in the low-low-competence condition. If "absolute" competence at a task (as defined by the level of success feedback) defines a person's subjective experience of freedom, then no tendency towards reactance would have occurred in this condition as the subject would not have been experiencing a freedom that could conceivably be threatened. As this does not appear to have been the case (at least in so far as the present paradigm is concerned) one may infer that subjects' feelings of competence toward the task within the threat conditions may have been a function not only of their own level of success feedback but of the level of success feedback of the confederate as well.

Wicklund (1974) has defined subjective competence as the feeling that one possesses the potential to alter one's present situation. If this is the case, then perhaps the confederate's behavior in the low-low-threat condition alerted these subjects to their own equal potential. Harvey and Johnston (1973) and Harvey and Harris (1975), in a series of experiments, have found that subjects will perceive choice in taking an action or in making a decision to the extent that an alternative action is perceived to exist. Similarly, within the body of reactance literature, Jones (1971) and Jones and Brehm (1971) have reported successfully being able to manipulate "the subjective experience of freedom" of subjects through the use of choice, no-choice instructions, and also by alerting subjects to the fact that there were two sides to an argument.

Given Wicklund's definition of competence and the reports cited above, it becomes plausible that the behavior of the equally competent confederate in the low-low condition reduced the impact that the failure feedback was expected to have on the subjects' "subjective experience of freedom". Although subjects in this condition (low-low) were led to believe that they had performed at a level that was below average for that task, still, they had done so in the company of one who had done as poorly as themselves. The incompetent confederate, by threatening the subject, overtly demonstrated her own decisional freedom. This may have increased the low-low subjects' awareness of decisional freedom (i.e., their own ability or potential to correctly choose an answer).

Subjects' confidence ratings of their choice on the influence item lend support to the argument that the introduction of threat altered subjects' cognitive appraisal of the experimental situation (specifically their evaluation of their own competence vis à vis the demonstrated competence of the confederate).

Within the subject-low-competence-threat conditions, subjects' ratings of confidence in their choice were significantly higher than those of the subjects in the equivalent no-threat conditions. It is suggested that this effect is directly attributable to the threatening action of the confederate. A significant ($p < .05$) subject competence by threat interaction was obtained when a 2x2x2 analysis of variance was performed on the confidence ratings. An inspection of the mean confidence ratings presented in Table 2 (p.40) reveals that

the subjects in the low-competence-threat conditions felt more confident in their choice on the influence item than they should have had on the basis of their manipulated level of competence at the task and on the basis of the level of ability to make accurate judgments (of the type required by the task) that they subsequently reported feeling.

When a subject is low in manipulated competence and is faced with a persuasive communication from a highly competent source (low-high) his confidence in his choice (which is the same choice as that of the confederate) appears to be a reflection of the competence of the confederate. It is proposed that a subject in this situation isn't free to reject the information in the confederate's communication (i.e., what the confederate thought to be the right answer to the question). On the other hand, the subject who is low in manipulated competence and is faced with a persuasive communication from a source who is only equally competent (low-low), is free to reject the message itself. Further, this subject is more likely to view the influence attempt as a restriction of his decisional freedom (i.e., as a threat). As the confederate is apparently expressing inordinate confidence in her own judgmental abilities, his ability to make an accurate judgment (i.e., the felt-ability of the subject) will increase. If this choice is different from that advocated by the confederate (i.e., a reactance response) the subject is apt to be increasingly confident in the accuracy of his own choice.

The results from the analyses performed on both subjects' choice on the influence item and their rated confidence in their choice confirm the original hypothesis that a subject must first perceive freedom and then perceive a threat to that freedom for reactance to be aroused in response to a persuasive communication. However, the trend exhibited in the responses of the subjects in the low-low condition suggests that the relationship of subject and confederate competence to these conceptual variables is not a simple function of the level of manipulated competence. Rather, it appears that the critical feature of the competence of the subject and the competence of the confederate is not their absolute level (that is high or low as determined by their success/failure feedback) but, whether or not the subject and the confederate are at the same level (both high or both low) or at different levels (high-low, or low-high). If, subjects interpret competence feedback "relatively", then perceived freedom will be a function of both subject and confederate competence. Subjects will perceive freedom when they are at least as competent as the confederate. Similarly, perceived threat will also be a function of both subject and confederate competence. Subjects will perceive threat when the confederate is at least as competent as they are.

Individual Differences

Cherulnik and Citrin (1974) (internal-external control) and Grabitz-Gniech (1971) (self-esteem) reported evidence which suggested that these personality characteristics may be important

contributory factors to the psychological reactance processes that occur in response to "threat". The findings of these investigators led them to conclude that the occurrence of psychological reactance may be limited by the interaction of these personality pre-dispositions of the individual subjects with the characteristics of the experimental setting (for example, the type of threatening message).

Two findings were recorded in this study on examination of the relationship of internal-external control to the psychological reactance process. Firstly, it was found that high feelings of internal control were positively related to reported feelings of constraint in the test situation, and secondly, that high feelings of internal control were positively related to a "reactance" choice on the influence item.

The task employed here was defined as a skill-related one for which subjects were given success and failure feedback to induce feelings of competence relative to another (the source of the influence attempt). It was postulated that subjects' cognitive evaluation of the situation would be altered by these external manipulations and hence their responses to the experimental influence setting would differ.

Rotter (1966) has suggested that the differential responsiveness of internally versus externally controlled subjects to performance feedback is heightened the more clearly the situation is defined as being either skill-related or chance-related. When the situation was defined as skill-related, Karabenick (1972) found that internal versus external subjects are more affected by experiences of success

and failure such that they place a higher incentive value on the outcome of the task. Further to this, DuCette and Wolk (1973) have shown that, when subjects will have some degree of control over the outcome of the task, internal subjects will exhibit heightened cognitive and motivational activity (i.e., they will extract more information from the situation given the conditions for heightened motivation). The findings of these investigators indicate the possibility that, in the paradigm employed here, the more internally controlled subjects might exhibit heightened awareness of their own and of the confederate's competence, and of the confederate's behavior with its implied constraints. It was found, in keeping with this hypothesis, that the more internally controlled subjects did report feeling less free to make their choices on the test items. Also, if internal versus external subjects were differentially motivated and hence differentially extracting and processing information from the experimental setting, they should also react differentially to the persuasive message. It was found, that knowledge of subjects pre-dispositional level of internal-external control was predictive of a reactance response. The more internally controlled the subjects were, the more they tended to reject the position advocated by the confederate. This finding is in keeping with the reports from other investigators (Blando & MacDonald 1971, Gore 1962 and Ritchie & Phares 1969) who found that internally controlled subjects were more resistant to persuasive messages in attitude change paradigms.

As with the personality characteristic of internal-external control, it was hypothesized that subjects pre-dispositional levels

of self-esteem would affect their cognitive evaluation of the experimental setting and hence, their response to it. It was found that the higher the subjects' self-esteem the more they felt that the confederate was trying to influence them. Unlike Grabitz-Gniech's (1971) reported finding, self-esteem alone was not found to be predictive of a reactance response.

Grabitz-Gniech tested the effect of self-esteem on a reactance response after splitting subjects' scores on the Feelings of Inadequacy Scale at the median. She then found by means of a 't' test that those subjects who showed reactance across experimental conditions, had a significantly lower mean response score on this scale than those subjects who did not show reactance. In this study, the test of the effect of self-esteem on a reactance response was a more powerful one. Here, the choices on the influence item of all of the subjects were looked at as a function of the entire continuum of scores on the Feelings of Inadequacy Scale. This differential approach to testing the effects of self-esteem probably accounts for the variation in results reported by Grabitz-Gniech and those that are reported here.

The finding that high self-esteem is positively related to the perception of a persuasive message as an influence attempt is, however, entirely in keeping with the reports of other investigators (Cohen 1959, 1964, McGuire 1968, and Nisbett & Gordon 1967).

Collectively, the results from the analyses of the relationship of these individual difference measures to perceived freedom and perceived threat, indicate that these characteristics may be

important determinants of subjects' responses to influence attempts. Certainly, internal-external locus of control would appear to be related to the subjective experience of freedom and self-esteem to the perception of a persuasive message as a threat to decisional freedom. Further, it would appear that the knowledge of subjects' position on these personality dimensions will augment the predictive power of reactance theory.

Further Analyses

Results from an analysis of subjects' responses to a post-experimental questionnaire illustrate the same profound effect (reported earlier, by Heilman & Garner 1975) that a manipulation of threat has on subjects' attributional processes. Subjects were asked a series of questions that had been specifically designed to probe their evaluation of the entire experimental situation and more precisely, their evaluation of their own and of the confederate's behavior.

With reference to the results presented in Tables 3 (a), (b), (c) (p. 44-46) it appears that the confederate's attempted influence of the subjects' choice heightened their awareness of the confederate herself (her ability, confidence, etc...) and of the task (its difficulty, importance to the individual etc...). Subjects' perceptions of the confederate were apparently altered by her having attempted to influence them. When in the threat conditions, the subjects appraised the confederate as having felt more confident, as having found the task easier, and as being more skillful when high in competence and as being less skillful when low in manipulated competence. It

should be noted at the same time, that these effects were obtained over and above those effects that were due to the manipulations of subject and confederate competence.

Subjects' perceptions of their own behavior ("place") in the experiment were also altered by their having been exposed to an influence attempt. The confederate's behavior increased subjects' confidence in their judgments and caused them to view success at the task as being more important to them. Similarly, they also reported trying harder to do well at the task. Further, subjects when asked how sensitive they felt they were to the feelings of others, reported feeling more sensitive in the threat conditions. Within this condition, subjects felt more sensitive when they were equal in competence to the confederate than when they were either more or less competent than the confederate.

These results suggest that the influence attempt affected subjects' perceptions of their own behavior, of the confederate's behavior, of the task, and of the interrelationships among them. The discriminant analysis that was performed on the threat and the no-threat groups of subjects clearly illustrates this. On the basis of it, one can infer with some degree of accuracy that a subject has been exposed to an influence attempt if he reports: perceiving "intent" to influence by the confederate; finding the task very important; a very high overall feeling of confidence; and, feeling that the confederate found the task easy.

In the results section a pattern of interrelationships based on the threat, no-threat distinction, was outlined. This suggested

pattern is inconsistent with an interpretation of the subjective experience of freedom as a function of one's absolute level of competence at a task when one is considering a threat from a source of known competence.

Using all available indices of the subjects' motivation for their behavior, an attempt was made to determine the strength and the nature of the relationship of each individual index (while at the same time making allowances for the overlap among them) to the subjects' behavior (i.e., their choice on the influence item). The stepwise regression equations which were reported earlier are the result of this attempt.

The results from this analysis (refer to Table 4, p. 51) indicate that the underlying explanation ("motivation") for the subjects' behavior is one which subsumes the impact of the threatening action itself. When the subjects are divided into the threat and the no-threat groups it becomes apparent that their reasons for making the choices which they did are not the same.

When there is no threat present, the subjects' behavior can be explained almost entirely it seems by those features of the situation that are directly, personally related to the subject. Hence, we see that the subjects' choice on the influence item can be significantly predicted with the knowledge of: their confidence in their choice; the difficulty they experience in making a choice; and, to a lesser extent, the sensitivity they feel to others.

When a threat in the form of a communication expressing definite intent to persuade is present, more factors in the situation appear to be influencing a subjects' choice. This observation lends support

to an argument that would suggest that subjects will differentially attend to, and extract from, the information present in the experimental situation when an influence attempt has been made. Looking at all of the data that was available in the present study, it now appears that subjects' responses to threat (i.e., whether they accept the message or whether they reject it) can be predicted with a knowledge of: their feelings of sensitivity to others; their ease in making a decision; their position on the dimension of internal-external control; their feelings of whether the confederate was trying to help them; and, of the condition of relative competence ("equal to" versus "different from") in which they were.

Summary and Conclusions

From this study, it appeared that the situational variable of subject competence is positively related to subjects' experience of decisional freedom and that the situational variable of confederate competence is positively related to subjects' perception of threat. In addition, it appeared that the "personal" variable of internal locus of control is positively related to subjects' experience of freedom and that self-esteem is positively related to subjects' perception of threat. Further, it was noted that subjects' perceptions of their own behavior, the behavior of the confederate, and the task, were altered by introducing a threat into the testing situation.

On the evidence available, it appeared that both the perception of freedom and the perception of threat are necessary pre-conditions for the arousal of reactance in response to an influence attempt. It was shown in this study, that both of these necessary pre-conditions are related to the situational variables of recipient and source competence at the task, and to the personal variables of internal-external locus of control and self-esteem.

When multiple regression equations were generated with choice on the influence item as the dependent variable, it was found that manipulated competence was a significant predictor of choice. It appeared that the high-high and the low-low-competence conditions were predictive of a reactance response whereas the high-low and the low-high conditions were predictive of a compliant response. Therefore, the conclusion may be drawn that the recipient of an influence message will perceive freedom when he is as competent as the source of the influence attempt, and he will perceive threat when the

source is as competent as he is.

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Appendices

Appendix A

Pre-Measures ... Internal-External Control Scale

Feelings of Inadequacy Scale

INSTRUCTIONS

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you most strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be the case, that is, the one you actually believe to be true rather than the one that you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice.

In some instances you may find that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

1. a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized, no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.
8. a. Heredity plays the major role in determining one's personality.
b. It is one's experiences in life which determine what they're like.
9. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, or control.
b. By taking an active part in political and social affairs the people can control world events.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck".
19. a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.
20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
21. a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22. a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.
27. a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.

Please circle the letter that best describes your feelings on each statement.

There are 23 questions , please answer all of them.

1. How often do you feel that you dislike yourself?
 - (a) very often
 - (b) fairly often
 - (c) sometimes
 - (d) once in a great while
 - (e) practically never
2. How confident do you feel that some day the people you know will look up to you and respect you?
 - (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all
3. In general, how confident do you feel about your abilities?
 - (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all
4. How often do you feel self-conscious?
 - (a) very often
 - (b) fairly often
 - (c) sometimes
 - (d) once in a great while
 - (e) practically never
5. When you are trying to convince other people who disagree with your ideas how worried do you usually feel about the impression you are making?
 - (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all
6. When you have to talk in front of a class or a group of people your own age how afraid or worried do you usually feel?
 - (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all

7. When you think about the possibility that some of your friends or acquaintances might not have a good opinion of you, how concerned or worried do you feel about it?

- (a) very
- (b) fairly
- (c) slightly
- (d) not very
- (e) not at all

8. How often do you worry about whether other people like to be with you?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

9. How often do you feel to blame for your mistakes?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

10. Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

11. Do you ever think that you are a worthless individual?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

12. How often do you worry about criticisms that might be made of your work by whoever is responsible for checking up on your work?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

13. How often do you feel inferior to most of the people you know?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

14. How often do you have the feeling that there is nothing that you can do well?
- (a) very often
 - (b) fairly often
 - (c) sometimes
 - (d) once in a great while
 - (e) practically never
15. When you are trying to win in a game or sport and you know that other people are watching you, how rattled or flustered do you usually get?
- (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all
16. When in a group of people, do you have trouble thinking of the right things to talk about?
- (a) very often
 - (b) fairly often
 - (c) sometimes
 - (d) once in a great while
 - (e) practically never
17. When you have made an embarrassing mistake or have done something that makes you look foolish, how long do you usually keep on worrying about it?
- (a) very often
 - (b) fairly often
 - (c) sometimes
 - (d) once in a great while
 - (e) practically never
18. How much do you worry about whether other people regard you as a success or failure in your job or career?
- (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all
19. Do you find it hard to make talk when you meet new people?
- (a) very
 - (b) fairly
 - (c) slightly
 - (d) not very
 - (e) not at all

20. How often do you feel bothered or worried about what other people think of you?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

21. How often are you troubled with shyness?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

22. Do you ever feel afraid or anxious when you are going into a room by yourself where other people have already gathered and are talking?

- (a) very often
- (b) fairly often
- (c) sometimes
- (d) once in a great while
- (e) practically never

23. How much do you worry about how well you get along with other people?

- (a) very much
- (b) fairly
- (c) slightly
- (d) not very much
- (e) not at all

Appendix B.

Verbal Instructions To Subjects

Instructions

(1) During the practice session.

Please be seated. This is an experiment to test people's social perceptiveness, that is, how well they can predict other people's reactions and behavior. For this purpose a test has been devised that consists of 10 items. Each item consists of 3 statements, these statements have been previously answered by other people. What you are to do, is to try and judge what this person has answered for the third statement of each set after seeing his or her answer for the first two.

Now, as the format of this test is probably different from any other type of test you may have done, I will be giving you 10 practice trials on very similar types of items. After each of your answers I will let both of you know if you are right or if you are wrong for that question.

Please open the folder in front of you. The first of the sheets marked 1 are the practice items. Please read the instructions on the front page.

Do you have any questions at this point.

Now, as I mentioned before, I will tell you if you are right or wrong after you answer each item, and your total score on the 10 practice items in comparison to others who have previously taken the test.

On the board in front of me there are two pairs of lights. The pair on the left will indicate whether you [point to the person] are right or wrong on each question. The pair on the right, whether you [point

to the person] are right or wrong. You will see in front of you 2 index cards, labelled, true and false. After considering each question, you will answer by holding up 1 of these cards, so that I can see it. I will call out the number of each question as we go along so that I can be sure of which one you are answering.

Do you have any questions?

[After the practice is over]

Fine, now let me see here is what you scored on all 10 items and your standing and here is what Noreen scored...

Now, before continuing there are a few questions I'd like you to answer about the practice trials and these are on the set of sheets marked 2 in the folder.

[After filling these in]

(2) During the test session.

You will now read the instructions on the cover of the test form and the ones at the top of the first page.

Do you have any questions?

Alright, I will be back shortly to collect them. There is no time limit, so please consider each set of statements carefully.

[The experimenter leaves the room, and when she returns she continues]

Have you both finished?

Okay, please fill in this final questionnaire for me.

(3) Debriefing.

Now, that completes this experiment. Do you have any questions?

Okay, I'll explain a bit about this experiment for you. We are interested in how people will react to someone's trying to influence their choices and how this may be connected with how good at things

that is how competent they are. That is why there was a practice trial involved. It really has no connection with your social perceptiveness as there are no right or wrong answers to these questions, whether I said right or wrong to your answers was entirely at random, so please do not feel badly if you received a low score. Noreen here tried to influence your choice on the first test question or she didn't depending on whether you were in the influence or in the no influence control group. I have to run more subjects, so I would appreciate it if you wouldn't discuss the experiment with anyone. Thank-you for coming and here is your payment slip.

Appendix C

Experimental Materials ... Random sequences of right and wrong
used to signal success and failure
feedback

Practice items

Standardized scores on the practice
items

Test items

Sequences of right and wrong used to signal success and failure feedback to subjects in the four competence conditions.

High Subject - High Confederate

	Subject	Confederate
question 1.	right	right
question 2.	right	right
question 3.	right	right
question 4.	right	right
question 5.	right	wrong
question 6.	right	right
question 7.	wrong	right
question 8.	right	wrong
question 9.	wrong	right
question 10.	right	right

High Subject - Low Confederate

	Subject	Confederate
question 1.	right	wrong
question 2.	right	wrong
question 3.	right	right
question 4.	right	right
question 5.	right	wrong
question 6.	right	right
question 7.	wrong	wrong
question 8.	right	wrong
question 9.	wrong	right
question 10.	right	wrong

Low Subject - High Confederate

	Subject	Confederate
question 1.	wrong	right
question 2.	right	right
question 3.	wrong	right
question 4.	wrong	right
question 5.	right	wrong
question 6.	wrong	right
question 7.	right	right
question 8.	wrong	wrong
question 9.	wrong	right
question 10.	right	right

Low Subject - Low Confederate
Subject

Confederate

question 1.	wrong	wrong
question 2.	wrong	right
question 3.	right	wrong
question 4.	right	wrong
question 5.	wrong	right
question 6.	right	wrong
question 7.	wrong	right
question 8.	wrong	wrong
question 9.	right	wrong
question 10.	wrong	right

WILSON PERSONALITY INFERENCE TESTPRACTICE ITEMS

This Inventory has been developed as part of a research project aimed at understanding social behavior. This Test assesses your sensitivity in judging other people by seeing how accurately you can predict others' values and attitudes. This is of course a very important skill for every day life.

The object of this, is for you to predict how another person answered a statement when you have seen his answer to two similar statements. Each item on this Test consists of two value statements (please look at item 1 on the practice sheet in front of you) for which you have been given the answers that were given by a person (who is either male or female); your job is to predict how this person has answered the third statement. Now you will be given a series of practice trials, 10 in all before you take the Test items. When you have finished these, I will inform you of the number of correct and incorrect choices you have made, this will help to familiarize you with the procedure.

Start with the first item on the sheet and consider the first two statements carefully before deciding on the answer for the third statement. Follow this procedure for all of the 10 items.

PRACTICE ITEMS

1. At times I feel like smashing things: true
 Beauty is as important as usefulness: true
 Western civilization is going downhill: _____ a) true b) false
2. I like mechanics magazines: false
 I think more of the future than of the past: false
 I am an impulsive buyer: _____ a) true b) false
3. Philosophical discussions are a waste of time: true
 I admire free, spontaneous people: true
 Art is the essence of humanity: _____ a) true b) false
4. I believe women ought to have as much sexual freedom as men: false
 My dreams are often in color: false
 I would enjoy learning to walk on a tightrope: _____ a) true b) false
5. Most of my teachers were helpful: true
 If I have a problem, I like to work it out alone: true
 I spend a lot of time in Art Galleries: _____ a) true b) false
6. I will not go out of my way to behave in an approved manner: false
 Swimming alone in strange waters would not bother me: false
 Colors are important in my daily life: _____ a) true b) false
7. I respect rules because they guide me: true
 Parental approval is important to me: true
 The sphere is the perfect form: _____ a) true b) false

8. I think I feel more intensely than most people do: false
I am so touchy on some subjects, that I can't talk about them: false
I would not like to be married to a protective person: _____ a) true
b) false
9. I am not easily angered: true
I very seldom have spells of the blues: true
I almost never dream: _____ a) true b) false
10. I am not very good at describing things: false
I have strong political opinions: true
I am not easily fooled: _____ a) true b) false

STANDARDIZED SCORES ON THE WILSON PRACTICE ITEMS

10 / 10	EXCELLENT	TOP 1%
9 / 10	EXCELLENT	TOP 5%
8 / 10	EXCELLENT	TOP 10%
7 / 10	GOOD	TOP 25%
6 / 10	FAIR	TOP 45%
5 / 10	FAIR	TOP 55%
4 / 10	NOT TOO GOOD	BOTTOM 45%
3 / 10	POOR	BOTTOM 20%
2 / 10	POOR	BOTTOM 5%

WILSON PERSONALITY INFERENCE TESTTEST ITEMS

I want you to read the first two value statements as before, and to notice where on the scale the person has placed his (her) check mark. As before, you are to judge how this individual has answered the third statement by placing a check mark on the scale beneath the third statement. Again consider each item on the Test carefully and be as accurate as possible.

6. I am never happier than when alone:

definitely true /...✓/.../.../.../.../.../.../.../.../ definitely false

If I were an artist, I would like to draw flowers:

definitely true /.../.../.../.../.../.../...✓/.../ definitely false

I have certainly had more than my share of things to worry about:

definitely true /.../.../.../.../.../.../.../.../ definitely false

For this set I feel:

very confident /.../.../.../.../.../.../.../.../ not at all confident

7. If we went back to the old ways I would be happier:

definitely true /.../.../.../.../.../.../...✓/.../ definitely false

Plato was the greatest philosopher of all:

definitely true /...✓/.../.../.../.../.../.../.../ definitely false

I do not understand Modern Art:

definitely true /.../.../.../.../.../.../.../.../ definitely false

For this set I feel:

very confident /.../.../.../.../.../.../.../.../ not at all confident

Appendix D

Experimental Measurements . . . Form administered after the practice items

Final questionnaire

NAME : _____

Fill in this form by indicating your answer to each question in the blank space to the right of each question.

1. How many items on the practice trials did you correctly answer: _____
2. How many items do you expect to correctly answer on the Test: _____
3. How many items on the practice trials did the other person answer correctly: _____
4. How many items do you expect the other person to correctly answer on the Test: _____

Fill in this form indicating your answer to each question by placing a check mark (✓) at the appropriate place on the line beneath each question.

1. How often do you feel self-conscious?
very often 1....2....3....4....5 almost never
 2. Do you ever think that you are a worthless individual?
very often 1....2....3....4....5 almost never
 3. When in a group of people, do you have trouble thinking of the right things to talk about?
very often 1....2....3....4....5 almost never
 4. How often do you feel bothered or worried about what other people think of you?
very often 1....2....3....4....5 almost never
 5. How much do you worry about how well you get along with other people?
very much 1....2....3....4....5 not at all
-

7. How hard did you try to do well?

very hard /...../...../...../...../...../...../...../...../...../...../

not too hard

8. How clear did you find the material used?

easy to understand /...../...../...../...../...../...../...../...../...../...../

somewhat confusing

9. How free did you feel to make the choices that you did on the Test?

completely free /...../...../...../...../...../...../...../...../...../...../

not at all free

Please answer each of the following questions with your experimental partner in mind. Put a check mark (✓) on the line below each question to indicate how you think your partner feels.

10. How confident about his (her) choices do you think your partner is?

very confident /...../...../...../...../...../...../...../...../...../...../

not too confident

11. How difficult do you think your partner found the Test?

very difficult /...../...../...../...../...../...../...../...../...../...../

pretty easy

12. How important do you think your partner felt the Test was?

very important /...../...../...../...../...../...../...../...../...../...../

not important at all

19. How similar do you think that you and your partner are?

very much
alike

/...../...../...../...../...../...../...../...../

very
dissimilar

20. If you got to know your partner better, do you think it likely that you could become good friends?

yes, very
likely

/...../...../...../...../...../...../...../...../

no, very
unlikely



