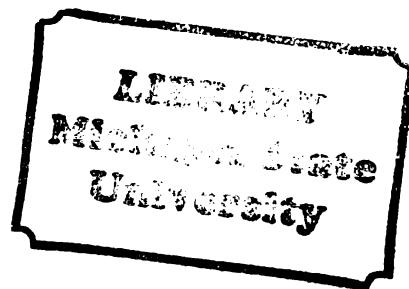


NEED TO INFLUENCE :
A PREDICTIVE MEASURE OF
PERSUASIVE BEHAVIOR ?

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
ANN CHRISTIANSEN

1968

THESIS





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NEED TO INFLUENCE:
A PREDICTIVE MEASURE OF
PERSUASIVE BEHAVIOR?

By
Ann Christiansen

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

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1968

ABSTRACT

NEED TO INFLUENCE;
A PREDICTIVE MEASURE OF PERSUASIVE BEHAVIOR?

by Ann Christiansen

Communication research has studied the personality correlates of attitude change rather extensively. A complimentary focus studies the personality characteristics of the persuador, or influence agent. The motivational state of nInfluence is one such characteristic that is of interest to the communication scholar. Knowing the strength of an individual's Need to Influence should enable the researcher to predict an individual's propensity to engage in persuasive behavior.

Such predictions require some measure of nInfluence and a demonstration that nInfluence is related to persuasive behavior. The present study attempted to validate the ability of Uleman's (1965) nInfluence measure to predict certain aspects of persuasive behavior.

The experimental situation consisted of a persuasive task. Subjects were instructed to attempt to persuade a trained confederate to the subject's point of view on fluoridation of public water supplies. Two independent variables were employed: High and Low nInfluence and High and Low External Motivation. The dependent variables were measures of the performance times of individuals, the reported degree

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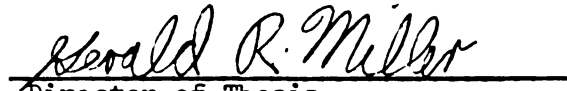
of enjoyment and difficulty of the task, and the reported willingness of the subjects to participate in such a study again.

The hypotheses predicted: 1) an interaction between nInfluence and External Motivation on subjects' performance time such that the High nInfluence: High External Motivation condition would spend more time trying to persuade the confederate than the High nInfluence: Low External Motivation or the Low nInfluence: High External Motivation conditions, and all three conditions would spend more time on the task than the Low nInfluence: Low External Motivation condition; and 2) three nInfluence main effects, such that when compared with the Low nInfluence condition, the High nInfluence condition would a) enjoy the task more, b) find the task less difficult, and c) be more willing to participate in such a task again.

The results of the study do not provide any evidence to validate Uleman's nInfluence measure. No significant differences were found on any of the dependent measures. However, when the nInfluence measure was trichotomized an interaction between nInfluence and External Motivation on the performance time emerged ($p < .10$). The form taken by this interaction, however, was not as predicted.

These findings suggest not only that the nInfluence measure may be sensitive enough to detect differences in the motivational states of individuals, but also that motivation and behavior are completely related to each other.

Accepted by the faculty of the Department of
Communication, College of Communication Arts, Michigan
State University, in partial fulfillment of the requirements
for the Master of Arts degree.


Director of Thesis

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As always, a thesis is more of a group effort than the work of one individual. My thanks go to the coders, Karen Pawlovich and Nancy Piet; to the researchers, Dave Beatty, Elizabeth Hanney, Betsy Niman, Gus Alexander, and John Frahm; and to the confederates, Jan Hyatt, Sandy Schaeffer, Jane White and Christy Tabb. Also many thanks to my typists, Shirley Sherman and Claudia Gean.

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CHAPTER I

INTRODUCTION

Many recent communication studies have focussed on attitude change. These studies have manipulated such variables as speaker's credibility, message elements, and the psychological states of the individuals to determine the conditions which optimize attitude change. Attitude change is one element of a process termed persuasion, and relates to this process primarily from the message receiver's point of view. But source characteristics are also of interest in this process.

One variable that enables the communication scholar to look at the source in the persuasion process is nInfluence, or Need to Influence. The process of persuasion can be defined somewhat synonymously with the power relationship: A exercises power over (or persuades) B if A gets B to do something which B would not have done if A were not present. Power is a more inclusive concept than persuasion in terms of the means control generally used to accomplish a given effect. But what is important when power and persuasion are defined the same way is the relationship between an influence agent and some receiver. Nevertheless, such a definition says nothing about the internal motivational states of the influence agent or the persuador.

When we turn to the notion of nPower or n Influence, we are no longer talking about the relationship between A and B which leads to a given effect. Rather we are now considering which of A's personality characteristics or needs make him the persuador in the process rather than the persuadee. Holding constant differences in status or power that derive from situational variables, what characteristics lead an individual to assume the influential role?

Thus, nInfluence is a motivational state, rather than an existing power structure. It is of interest because it is, by definition, interpersonal in nature, and it is concerned with predicting communication behavior, notably propensity to engage in persuasive activities.

Much of the research on the variable power has emphasized environmental or structural variables that determine the kinds of interactions that take place between individuals. A conceptualization of nPower or nInfluence as a motivational state, however, necessitates a measure of individual differences. One approach to measuring the strength of this motivational state follows the lead of David McClelland and his associates. McClelland developed a content analytic scheme for determining the strength of Need for Achievement from stories written in response to various stimulus pictures. Joseph Veroff was the first to apply such a method to measure nPower. In 1965, James Uleman modified Veroff's categorization scheme. We are primarily concerned with Uleman's measure.

Conceptually, nPower and nInfluence are quite similar. Veroff (1958) defines nPower in this way:

...[S]ocial power is a dimension to be considered in the analysis of interpersonal relationships. In [this] sense the power motive will be considered that disposition directing behavior toward satisfactions contingent upon the control of the means of influencing another person(s). (p.105)

Uleman's (1965) concept of nInfluence is synonymous with Murray's

nDominance:

nDominance includes the desires 'to control one's human environment. To influence or direct the behavior of Os [i.e., others] by suggestion, seduction, persuasion, or command. To dissuade, restrain, or prohibit. To induce an O to an act in a way which accords with one's sentiments and needs. To get Os to cooperate. To convince an O of the "rightness" of one's opinion.) (p.10)

Uleman frequently substitutes the term nPower for the term nInfluence, and thus uses the two interchangeably. This practice has been adopted in the present discussion.

The question of what kinds of behaviors a measure of nPower or nInfluence might predict is relevant here. Veroff (1958) states that "before one can make these predictions about the relationship of power motivation to behavior, a means of measuring the strength of the motive has to be established" (p. 106). But Veroff does assume that there is a positive relationship between seeking elective office and the strength of the power motive. Uleman's (1965) description of the High nInfluence individual differs somewhat:

Those high in nPower show only slight tendencies to seek elective office. However, they are rated as more dominant by their peers; they score higher on a well validated scale of dominance; they influence others more when given the opportunity to exercise power; and they report more comfort in positions of power. Generally they seem to influence others for a wide variety of reasons, with or without recognition, and do it for its own sake. (p. 219)

Neither Veroff nor Uleman used these measures as independent variables in developing them. For this reason, any demonstration of the validity of such scales depends on using the measures as predictor variables. Three studies employing Veroff's measure of nPower are relevant to the exercise of power, particularly to persuasive attempts and to interpersonal perception in terms of power.

The first study is by W. J. McKeachie (1961). McKeachie's interest in nPower is primarily its relation to learning in the academic situation. He defines nPower as Veroff does. One of McKeachie's major hypotheses was tested in a naturalistic classroom situation. His supporting rationale and hypothesis were as follows:

It seemed likely that a class in which the teacher encouraged students to volunteer their ideas freely [as opposed to ideas elicited by questions from the teacher] would be one which would allow the student with high power motive to attempt to convince others of his point of view, and thus one in which he would be motivated. We hypothesized (weakly) that the student high in power motivation would achieve well in classes characterized by a high proportion of student volunteering. (p. 129)

The hypothesis was tested by use of a modified Bales interaction coding system developed by Mann (1959). Two observers in the class recorded student and teacher responses in eight categories: positive reactions, tension release, suggestions, orientation-opinion, asking for orientation or opinion, asking for support, tension, and negative tensions. In addition, behaviors related to power motivation were noted. However, McKeachie does not specify what these behaviors were. The criterion for achievement was the course grade.

McKeachie's findings support the hypothesis: "Males high in the power motive do get better grades in classes in which student volunteering is prevalent than in classes in which it is uncommon. The converse is true for males low in power motive" (p. 129). However, these findings do not generalize to females. McKeachie speculates that "power motivation is not emphasized as an important aspect of socialization of girls, or perhaps assertiveness is not a behavior instrumental to satisfaction of power motivation for women" (p. 130).

The second study focussed on an aspect of interpersonal relations, generally labelled interpersonal inference. D. E. Berlew's (1960) study concerns three motivational variables: nAchievement, nAffiliation and nPower, and their relationship to accuracy in the process of interpersonal inference. His main hypotheses state that:

[First]...persons are able to judge others more accurately relative to content areas that are moderately salient to them than content areas that are either highly salient or not at all salient to them. [And secondly,] the more salient a particular area of social interaction for a subject, the more he will tend to use categories relative to that area in classifying information about other people. (p. 20)

Following a group problem solving situation, coded using Bales' Interaction Analysis, subjects were asked to volunteer three adjectives that described each of the members of the group, including themselves. These adjectives were sorted according to their relevance to power, achievement and affiliation. Pre-measures on TAT instruments of power, achievement, and affiliation were taken as well as rankings of social values. These were then correlated with the frequency of use of power, achievement or affiliation adjectives.

Results for the power measures were as follows:

...The Median Test indicated the presence of a negative relationship between power-motivation and power free-adjective scores.... The data, then, demonstrated a relationship exactly the reverse of what was predicted. Subjects with strong power-motivation tended to use fewer rather than more power related categories in classifying group members.

The correlation with value scores with the free-adjective distribution scores revealed only one of the predicted positive relationships: a correlation...between power value scores and power free-adjective distribution scores. Subjects who place a high value on power tend to use power-related categories to the exclusion of categories related to achievement and affiliation, just the reverse of subjects who have a strong power motive. (p. 70)

Finally, Martin L. Hoffman (1963) studied nPower in the parent-child relationship, notably in the quality of the disciplinary actions taken by the parent toward the child. He defines power "as the potential to compel others to act contrary to their desires" (p. 869). He posits that in a situation where one party is in a position to influence another, the influence methods chosen will differ as the strength of the power motive varies. That is:

The greater one's power, then, the more one's own needs and values can determine the kinds of control techniques used. Thus, it is with high power persons that we can most confidently expect to find relations between personality and control techniques. (p. 869)

Hoffman suggests two variables which determine choice of influence method: authoritarianism and need for power. The hypotheses studied were:



...The parent's authoritarianism and power need related positively to the three following indices of power assertion: the frequent use of unqualified power assertion as an initial technique, the frequent use of unqualified power assertion in response to the child's non-compliance to a prior technique; and the frequent attempt to control the child's behavior, apart from the particular technique used. (p. 872)

A fourth measure was the child's behavior in response to the parents' power assertion. Specifically, it was hypothesized that the greater the parental attempts at control, the greater the child's resistance to peer group control attempts.

The measure of power needs was Veroff's TAT projective technique. The findings show an interaction between economic class and between the sexes. For middle class mothers, there was a significant relation between authoritarianism and 1) power orientation and 2) child's resistance to peer group influence. Middle class fathers are significantly lower than lower class fathers on unqualified power and reactive unqualified power assertion.

For lower class fathers, significant relationships were found between authoritarianism and 1) initial power assertion, 2) reactive power assertion, and 3) resistance by child to peer influence.

For both groups of lower class parents the relation between power need and power assertion tended to be negative... . Though non-significant, they cannot be ignored in view of the positive authoritarianism findings obtained for these subjects and the fact that only in this group is there a negative relation between authoritarianism and power need.... (p. 876)

The conclusions drawn by Hoffman suggest that "while the projective measure may be valid in the middle class, it may not be valid in the lower class" (p. 876).

However one chooses to interpret the findings of all three studies, at least one generalization is possible. Measures of nPower are complexly related to the actual exercise of power. They are complicated by sex differences and economic class. The findings in reverse of the hypotheses suggest one of two things: 1) if the measures of nPower are validly measuring a power motive then those concerned with power in their fantasy, and thus those who seem to want to exercise power, may be those who have no opportunity or are inhibited in the exercise of power in their normal relationships. This may account for their preoccupation with power; 2) the measures of nPower are not validly measuring the propensity to actually engage in influence behaviors.

At this point, the better route to follow is to question the validity of the scales used before making the sorts of generalizations required by the first alternative. This is, in fact, what Uleman (1965) has done. The core of Uleman's measure of nInfluence is the use of a projective technique, namely responses to a set of TAT stimulus pictures (See Appendix A). His measure is a modification of Veroff's nPower.

Uleman's modification of Veroff's measure arose out of a dissatisfaction with the behaviors which the measure predicted. As Uleman puts it, Veroff's scheme involves at least three theoretic problems:

The first problem [involves] the role of status or prestige 'in the need for power.' The second problem concerns the role of defensiveness and fear of being influenced by others. And the third problem centers around the means-end relationships. Is the 'need for power' independent of the ends or goals for which that power is used? (p. 34)

Relative to the second problem Uleman says:

Veroff's measure...seems to get at the need to attain power which can be used to defend against others' influence attempts. Here, power is primarily a static institutionalized condition which one can attain, rather than being an effect upon others. It is used largely in self-defense. (p. 210)

Thus Uleman implies that the aspects of nPower measured by Veroff do not adequately correspond to behaviors that current definitions of nPower describe, however vaguely. Namely, Uleman's nPower focusses on that individual who attempts influence, not the individual who defensively counteracts the influence attempts of others. Uleman has tried to specify the elements likely to predict the strength of Need to Influence.

His measure consists of ten categories, each of which is scored for presence or absence in a TAT story. The first category (Power Imagery) is a discriminating category which determines whether or not the story deals with power. If this category is not scored, no other categories can be scored. If, however, power imagery is present, then there are nine other categories which can be scored for the story.

The first five of these emphasis modifiers concern the parties in the action. They serve to identify certain aspects of the parties: 1) prestige, in terms of social status, wealth, organizational position, special honors, or aspiration to high status; 2) participation of an

organization itself, or a representative of an organization in the influence situation; 3) lack of self-deprication, or belittling of the parties; 4) absence of reminiscence, or non-functional daydreaming in the story; and 5) absence of dread, doubt, or apprehension, or absence of criticism of a future plan or course of action.

The last four categories qualify the nature of the action-reaction sequence. These are: 6) counter-reaction, or the presence of an overt, distinctly identifiable reaction by one party to the action of the other party; 7) consultation, or an action situation involving the seeking or giving of advice, or mutual planning of a future event; 8) threat involving an action by one party which threatens some object of importance to the other, and a reaction by that other party to neutralize the effect of the first party's action; and finally 9) separation, or the voluntary or forced departure of one party from the other. (See Uleman, 1965, Appendix J)

These categories are not theoretically grounded in the sense of being developed out of a theory of power. Uleman employed a gambling experiment to arouse the nInfluence motive in one group; another group formed the non-aroused group. This gambling experiment involved giving the subject control over the rewards of the other person in the situation (the confederate). The TAT was then administered to this group and the control group. A series of content analytic schemes were devised to differentiate the scores of the experimental group from those of the control group. As such, the nInfluence measure evolved primarily in the manner of a dependent variable, and has not been used as a predictor variable.

One study that has used nInfluence as an independent variable is C. R. Berger's dissertation (1968). His study shows a relationship between nInfluence and sensitivity to amount of external monetary rewards for persuasive behavior and a relationship between nInfluence and sensitivity to positive or negative feedback on the persuasive attempt. These results derive mainly from manipulation checks, rather than tests of the main hypotheses of the study. As such, the study bypasses a number of issues dealing with the persuasive attempt itself, and has not assessed the validity of the nInfluence measure in predicting communication behavior.

The first question is whether or not the nInfluence measure predicts propensity to engage in influence attempts. That is, is the nInfluence measure valid? From this follow other questions. They are questions of theory and operationalization.

The notion of nInfluence as a motivational state deserves more attention. Uleman considers nInfluence a motivational state, if not primary or instinctive, then at least learned or conditioned. But regardless of the origin of the motivational state, nInfluence could be defined as an intrinsic source, rather than extrinsic source, of motivation for a given behavior. Exercise of the behavior itself, then, is rewarding for the individual. It is obvious, however, that extrinsic sources of motivation, that is, sources of motivation independent of nInfluence can elicit the same behavior. Therefore the study of nInfluence must discriminate if possible behaviors which are unique to this particular motivational state. For this reason, external sources

of motivation must be explicitly manipulated and differences in behavior explored.

Theoretically, what is the relationship between intrinsic and extrinsic sources of motivation? Do they operate independently or do they interact? What aspect of the influence attempt is rewarding--the attempt, or the success of the attempt? If it is assumed that the attempt is rewarding, then expenditure of effort itself is rewarding. This may be a contradiction of certain aspects of learning theories. The next question is, logically, what is the effect of feedback--success or failure of a persuasive attempt-- on the behaviors of High or Low nInfluence individuals? Under conditions of success, the attempt may be intrinsically rewarding. But under conditions of failure, what happens?

Operationally, the same problems arise. What is an appropriate measure of the presence of a state of motivation? It must be assumed, at this point at least, that the appropriate measure is some expenditure of energy.

These questions are dealt with in the present study. First, the study sought to demonstrate the validity of nInfluence measure in predicting the persuasive behavior of an individual. In order to do this, two independent variables were employed: nInfluence and the presence **or** absence of External Sources of Motivation. In order to separate the persuasive attempt from the elements of success or failure, feedback was held constantly negative for all communicators. The major

criterion variable was a measure of effort: specifically, the time spent performing a persuasive task. Therefore, we might suggest that this study sought to determine in part which element of the persuasive task is rewarding-- the attempt regardless of feedback, or success in the attempt. Additional dependent measures were reports of enjoyment, difficulty in performing the task, and willingness to participate in such a study again.

The major assumption of this study was that the nInfluence measure validly predicts propensity to engage in persuasive behavior. This assumption was tested via two theoretic hypotheses. Based on the definitions of the High nInfluence individual that characterize him as eager to exercise influence where he can and as finding such exercise of influence rewarding (Uleman, 1965), the first theoretic hypothesis was as follows:

- H_1 : a) When compared to Low nInfluence persons, High nInfluence persons will persist longer at an influence attempt regardless of success or failure.
- b) When compared to Low nInfluence persons, High nInfluence persons will enjoy the influence attempt more regardless of success or failure.
- c) Under a condition of failure to persuade, High nInfluence persons will be more willing to make a persuasive attempt another time than Low nInfluence persons.
- d) When compared to Low nInfluence persons, High nInfluence persons will find a persuasive attempt less difficult regardless of success or failure.

These hypotheses are based on the assumption that the rewards for the High nInfluence person making a persuasive attempt derive from the exercise of influence itself. Theoretically Low nInfluence persons do not derive the same rewards. Nevertheless, it is probable that some external sources of motivation can produce behaviors similar to that predicted by the state of nInfluence. We expect persons under a condition of High External Motivation to exert a higher degree of energy in the persuasive attempt than those under a condition of Low External Motivation. But under conditions of failure in the attempt, we do not expect conditions of external motivation to account for differences in perception of difficulty, enjoyment, or willingness to attempt a persuasive task again. Differences on these variables should be a product of the intrinsic rewards involved in making an influence attempt.

The second hypothesis parallels H_1 : a:

H_2 : When compared to persons under a condition of Low External Motivation, persons under a condition of High External Motivation will persist longer at an influence attempt regardless of the success or failure.

In effect, the prediction suggests an interaction between intrinsic and extrinsic motivation on persistence of the persuasive attempt. Main effects for the nInfluence variable are predicted for enjoyment, difficulty and willingness to attempt the influence again.

Thus, this study seeks evidence to validate the nInfluence measure as a predictor of communication behavior. Such a demonstration is necessary before the measure can be extensively used in the area of communication research.

CHAPTER II

METHODS

Subjects: Ss were selected from freshman and sophomore classes in psychology, advertising, and physical science at Michigan State University. In all, 81 Ss were originally pretested. Of these, 72 percent participated on a required or extra credit basis. The other 28 percent participated on a voluntary basis. The final design called for 60 Ss; however, only 49 participated in the second part of the study. Of these, 84 percent participated on a required or extra credit basis. Of the 49 who participated in the whole study, 19 were male and 30 were female.

Operationalization of Independent and Dependent Variables:

nInfluence: For each S, the measure of nInfluence was the cumulative score on four TAT stories. Uleman's coding scheme was used and provided a possible range from zero to 36 for each S. A dichotomization into High and Low nInfluence was made on the basis of the median score of the obtained range on the 60 Ss scored.

External Motivation: External motivation was manipulated by a message given to half the Ss. The determination of which Ss received the message (High) and which did not (Low) was done by randomly assigning Ss to High and Low External Motivation conditions at each of the two levels of nInfluence. The manipulation consisted of the following statement delivered individually to the S during the experimental situation:

Your instructor has indicated a great interest in your performance on this task. He has asked us to report to him how well you do in trying to persuade this person.

Time: The amount of time spent on the persuasive task was measured by the researcher, noting the time that the individual began the interview and the time that he emerged from the interview. The unit of measure was total number of minutes spent with the confederate.

Enjoyment, Difficulty and Willingness to Participate Again:

Measures of these three variables were obtained from Ss' responses on a post-questionnaire to the following questions:

1. How much did you like or dislike the task you just performed?

Responses were made on a five-point Likert-type scale ranging from "liked a great deal" to "disliked a great deal."

2. How difficult did you find this task to be?

Responses were made on a six-point scale ranging from "extremely difficult" to "extremely easy". The scale had no neutral position.

3. Would you participate in a similar study again if given the opportunity?

Responses were made on a five-point Likert-type scale ranging from "definitely yes" to "definitely no."

Manipulation Checks: The post-questionnaire also contained items

which enabled the researcher to determine if the S perceived the confederate's behavior in the intended manner. These questions are:

1. To what extent did you succeed in persuading this person of your point of view?

The response scale had four points ranging from "not at all" to "a very great extent."

2. How "persuasible" (or susceptible to influence) do you think the person you spoke to is?

Responses were made to a six-point scale ranging from "extremely persuasive" to "extremely unpersuasive." The scale had no neutral point.

3. The third item consisted of two questions:

- a) What do you think this person's attitude about fluoridation of public water supplies was when you first went in?

- b) What do you think this person's attitude about fluoridation of public water supplies was at the end of the time you spent with him (her)?

The response scales for both questions consisted of six points ranging from "extremely opposed" to "extremely favorable." The scale had no neutral position. A change score was then obtained by finding the differences between the two scales. This change score was the response used for this check.

Procedures:

Pretest: Approximately two and one-half weeks prior to the experiment, a pretest was administered. The pretest consisted of the nInfluence measure (called the "Test of Creative Imagination" for purposes of disguise) and an attitude measure of six topics (See Appendix A). From these topics, one was selected which showed least variation across subjects: fluoridation of public water supplies. The lack of variation was desirable for the mechanics of the study rather than for theoretic considerations. Namely, it made the training of confederates easier, since they had to learn only one role.

Assigning Conditions: Ss were first assigned to High or Low nInfluence conditions on the basis of their scores on the TAT measure. Within these conditions, Ss were then randomly assigned to High or Low External Motivation treatments.

The Experiment: The experiment designed to test the theoretic hypotheses involved a persuasive task. The S was asked to report to a particular room where he was told that the E was investigating the notion of persuasibility or susceptibility to influence. The S was told that in an adjoining room there was another student (the trained confederate) who had completed the same pretests as the S. It was stated that this person's position on fluoridation of public water supplies was already known and was the opposite of the S's position. Each S was told that his task was to try to persuade the person to accept S's point of view on fluoridation of public water supplies.

In order to use time as a dependent variable, each S was told that no one would interrupt him once he began his task, that it was entirely up to him to decide how long to stay. His decision, it was suggested, should be dependent upon his judgment of how likely the person was to change his opinion. If S was up against a hopeless case, he could leave; if he felt he could succeed given a longer time, he could stay as long as he wished.

The S was then escorted individually to a room where a confederate waited. During this time the researcher again emphasized that the S would not be interrupted and that he would have to decide for himself when to leave. The manipulation of external motivation was also done at this time. The researcher delivered the message concerning the report E would make to S's instructor on S's performance on the task to High External Motivation Ss but not to Low External Motivation Ss.

Timing began as soon as the door was closed and ended when the S came out of the room. Also, the conversations were tape-recorded. Originally, this was for purposes of testing a hypothesis about differing styles of persuasion. But incomplete data, due to technical difficulties, necessitated the elimination of this hypothesis. If the S persisted in the task for thirty minutes, he was interrupted by the E on grounds of a problem in the time schedule.

Following the persuasive attempts, S completed a questionnaire on the task and on the behavior of the confederate. The confederate also completed a brief questionnaire on the S's performance. This completed the study.

Training of the Confederates: Four female confederates were hired. They were approximately the same age range as the Ss, and were all women so as to hold constant the sex variable, at least to some extent. They were trained prior to the study to respond negatively to all influence attempts by the Ss. This was done in a role playing situation where the researcher could comment on their performance.

Instructions to the confederates limited the amount and kind of statements they were allowed to make to the S. A uniform script of potential feedback was necessary to restrict variation across the confederates as much as possible (See Appendix B). The manipulation of feedback required that:

1. The feedback could not indicate any agreement with the position of the S; that is, all feedback must indicate some degree of disagreement.
2. No feedback could be given unless requested by the S, so that the S was always the individual who initiated the influence attempt.
3. The confederate could not elicit by questions any statements from the Ss; that is, all feedback must be in the form of statements.
4. The length of feedback should be uniform as much as possible from confederate to confederate to avoid biases in the time measure. Therefore, confederates were limited to replying with a) yes or no statements, where possible, and "I don't agree," "I don't think so," etc.; and b) content statements of no more than three to four sentences in length.

Because the situation was unstructured to a great extent, these last three requirements became in effect recommendations. Adherence to these guidelines was checked by Ss' reports of the confederates' behavior.

CHAPTER III

RESULTS

Coding and Reliability on the nInfluence Measure: Two coders trained for previous studies coded the nInfluence measure. Each of the two coders had correlated significantly with coders in these other studies, but their scoring had not previously been coded with each other. All of the TAT measures for those 60 subjects who had agreed to participate in part two of the study were coded. Not all of these subjects actually participated, but the split into High and Low nInfluence was based on all 60 scores.

A Pearson Product Moment Correlation for 28 measures done by both coders resulted in an r of .58. Deleting the one worst pair of scores yielded an r of .75. Given the scores on the nInfluence measure, which are probably ordinal rather than interval, a more appropriate reliability figure is obtained by using a Spearman Rank Order Correlation Coefficient. Rho on 28 pairs of scores was .57. Again deleting the one worst pair of scores yielded a Rho of .73. While an r or Rho of .80 or better was desirable, the reliability coefficient obtained was judged sufficient for the study.

A further check on the discrepancies in coding was made. Out of 28 cases coded by both coders, a total of eight disagreed on whether

a subject would be classified High or Low on nInfluence. Four were coded High by Coder 1 and Low by Coder 2, and four were coded Low by Coder 1 and High by Coder 2. This does not suggest any bias in the classification of subjects.

The median score for the 28 nInfluence measures was 16 for Coder 1 and 12 for Coder 2. This discrepancy disappears when a median split is made for each range of scores. As already reported, the classification of subjects is unbiased. The median for the second coder, however, on the other 32 scores was 15. This suggests that the coding scheme as used by both coders was applied similarly, despite the discrepancies in medians on the original 28 scores. But the discrepancy does not influence the split of the total range of 60 scores into High and Low nInfluence. On the total range, the median was 16. This median did not change the classification of subjects from the split obtained from the two smaller distributions.

Checks on the Confederates: Before considering the experimental findings, several questions must be raised. First, did the confederates convey an attitude of disagreement with the subjects? Or in other words, was the feedback given consistently negative? Secondly, were there biases or constant differences in the times that each confederate spent with the subjects? The answer to both questions is yes.

Subjects were asked on the post-questionnaire to answer some questions about the confederates. These were questions about how successful they had been in persuading the confederate, whether the confederates had changed their positions from the beginning to the end of the persuasion attempt, and how persuasible the confederates appeared to be. The results on these checks are as follows:

The first check was the response to the question, "To what extent did you succeed in persuading this person of your point of view? (Item 5)" The response scale ranged from four ("to a very great extent") to one ("not at all"). Using a two-way analysis of variance, there were no significant differences among the four groups. The results are shown in Table 1.

Table 1. Means and Two-way Analysis of Variance of Responses to Item 5: "To what extent did you succeed in persuading this person of your point of view?"

External Motivation					
<u>n</u> Influence	High	High	Low		
	Low	1.60	1.40		
		1.70	1.20		
Sources of Variance	SS	<u>df</u>	MS	F	p
<u>n</u> Influence	.025	1	.025	< 1	NS
External Motivation	1.225	1	1.225	2.15	NS
Interaction	.225	1	.225	< 1	NS
Within	20.5	36	.569	--	--
Total	21.97	39	--	--	--

The overall mean ($\bar{X} = 1.48$, $sd = .74$) on this question indicates a point on the response scale between "not at all" successful (1.00) and successful "to a slight extent" (2.00). This is satisfactory evidence that the confederates performed as instructed.

The second manipulation check involved the response to the question, "How 'persuasive' (or susceptible to influence) do you think the person you spoke to is? (Item 9)" The response scale ranged from six ("extremely unpersuasive") to one ("extremely persuasive"). A two-way analysis of variance yielded no significant differences among the four groups. The means for the four groups indicate that the subjects perceived the confederates generally as "slightly" (4.00) to "very" (5.00) unpersuasive. The results are shown in Table 2.

Table 2. Means and Two-way Analysis of Variance of Responses to Item 9: "How 'persuasive' (or susceptible to influence) do you think the person you spoke to is?"

External Motivation					
<u>n</u> Influence		High	High	Low	
			4.40	4.30	
<u>n</u> Influence		Low	4.00	4.80	
Sources of Variance	SS	<u>df</u>	MS	F	p
<u>n</u> Influence	.025	1	.025	< 1	NS
External Motivation	1.225	1	1.225	< 1	NS
Interaction	2.025	1	2.025	1.34	NS
Within	54.10	36	1.502	--	--
Total	57.375	39	--	--	--

The third manipulation check was based on two questions. The subjects were asked to report what they thought the confederate's

position on fluoridation of public water supplies was at the beginning of the interview and at the end of the interview. The response scale for each question consisted of six points ranging from six ("extremely opposed") to one ("extremely favorable") toward fluoridation of public water supplies. A change score was derived from the two questions. If change occurred, the subject thought he had succeeded to some degree in changing the confederate's opinion.

A two-way analysis of variance for the change scores revealed no significant differences among the four groups. In addition, the means of the groups suggest that virtually no change in the confederate's position was reported. The response means for each question are also reported. They demonstrate that the confederates were perceived as opposed to the issue of fluoridation. For the most part these means represent the confederate's position as "extremely" (6.00) to "very" (5.00) opposed to water fluoridation. These results are given in Tables 3 and 4.

Table 3. Means and Two-way Analysis of Variance for Change Scores derived from Items 6 and 7: "What do you think this person's attitude about fluoridation was when you first went in? (Item 6)...was at the end of the time you spent with him (her)? (Item 7)"

	<u>nInfluence</u>	External Motivation		F	p
		High	Low		
		High	Low		
		.40	.60		
		Low	.75	.20	
Sources of Variance	SS	<u>df</u>	MS		
<u>nInfluence</u>	.006	1	.006	< 1	NS
<u>External Motivation</u>	.306	1	.306	< 1	NS
Interaction	1.40	1	1.40	2.19	NS
Within	23.03	36	.639	--	--
Total	24.74	39	--	--	--

Table 4. Means on Item 6 (pre-persuasion) and Item 7 (post-persuasion).

		External Motivation		
			High	Low
<u>n</u> Influence	High	pre	5.70	5.70
		post	5.30	5.10
	Low	pre	4.90	5.70
		post	4.85	5.50

The results from these manipulation checks show that the confederates did act in accordance with instructions. However, the differences in average time that each confederate spent with the subjects varied from 22.18 minutes to 12.09 minutes. These differences were significant beyond the .05 level as tested by a one-way analysis of variance, randomly dropping subjects to equalize cell size. The results are shown in Table 5.

Table 5. Means and One-way Analysis of Variance on Average Time Each Confederate Spent with Subjects

Confederates	1	2	3	4		
Time	22.18	18.00	12.91	12.09		
Sources of Variance	SS	<u>df</u>	MS	F	p	
Confederates	733.70	3	244.57	3.73	<.05	
Within	2619.45	40	65.48	--	--	
Total	3353.16	43	--	--	--	

The t tests among the pairs of confederates show that Confederate 1 is significantly different from Confederates 3 ($t = 2.73$, $df = 20$, $p < .05$) and 4 ($t = 3.00$, $df = 20$, $p < .05$). Confederates 2, 3, and 4 are not significantly different from one another, although the difference between Confederates 2 and 4 approaches significance ($t = 1.68$, $df = 20$, $p < .10$). Confederates 1 and 2 are not significantly different from one another.

This finding caused the researcher to check back on the treatment groups' time measures for evidence of bias. Originally this bias was controlled by rotating subjects from each treatment group to each confederate. But the time spent by subjects differed, necessitating a shift in the subjects' assignments according to which confederates were available at any given time.

After subjects had been randomly dropped to equalize cell size, the number of subjects per confederate for each treatment group was tabulated. Although the second confederate was not significantly different from Confederates 3 and 4, Confederates 1 and 2 were grouped as High time and Confederates 3 and 4 were grouped as Low time. If such a grouping does not unduly distort the data, it can be suggested that subjects were relatively equally distributed to confederates. A Chi Square for 2 by k cells yields a non-significant figure ($\chi^2 < 1$). The groupings are shown in Table 6.

Table 6. Distribution of Subjects/ Treatments to Confederates

Experimental Treatments	Hi-Hi	Hi-Lo	Lo-Hi	Lo-Lo
Confederates' High Time	5	3	4	4
Low	5	7	6	6

Some bias is probably present, but not enough to account for the time differences among the groups. More will be said about this problem in the hypothesis testing section of this chapter.

Test of Hypotheses: The main hypothesis predicts an interaction on the time measure between nInfluence and External Motivation, such that

The High nInfluence: High External Motivation condition will spend more time on the persuasive task than the High nInfluence: Low External Motivation or Low nInfluence: High External Motivation conditions, and all three conditions will be greater than the Low nInfluence: Low External Motivation condition.

The statistical test of the hypothesis employed a two-way analysis of variance for groups of equal size. Because the cell sizes were unequal due to attrition, nine subjects were randomly dropped from three cells to match the smallest cell. The n for each cell was 10. Those subjects deleted for this analysis were also deleted for all subsequent analyses requiring cells of equal size. The analyses include two subjects who suspected that the confederates had been coached. However, these subjects did not indicate any suspicion of the relationship of the task to the nInfluence measure.

The results of the analysis of variance do not support the hypothesis. The interaction was non-significant, and there were no significant main effects due to either nInfluence or External Motivation. The results are shown in Table 7.

Table 7. Means and Two-way Analysis of Variance for Subjects' Performance Time (in minutes)

		External Motivation			
			High	Low	
<u>nInfluence</u>	High	17.60	13.90		
	Low	18.40	19.30		
Sources of Variance	SS	<u>df</u>	MS	F	p
<u>nInfluence</u>	96.10	1	96.10	1.11	NS
External Motivation	19.60	1	19.60	<1	NS
Interaction	52.90	1	52.90	<1	NS
Within	3129.8	36	86.94	--	--
Total	3298.4	39	--	--	--

The lack of results suggests a reconsideration of the nInfluence variable. A study by C. R. Berger (1968) using nInfluence as a predictor variable in a dissonance study showed that a trichotomization of nInfluence into High, Medium and Low improved the predictive power of the variable. The trichotomization of the present data was accomplished by taking the upper, middle and lower thirds of the nInfluence scores for each condition of External Motivation. The statistical test used

to determine differences in mean times in the six conditions was a two-way analysis of variance. The results of this analysis are shown in Table 8.

Table 8. Means and Two-way Analysis of Variance on Subjects' Performance Time with nInfluence Trichotomized

<u>nInfluence</u>	External Motivation		MS	F	p
	High	Low			
High	20.87	12.13			
Medium	10.63	17.50			
Low	19.38	18.75			
Sources of Variance	SS	<u>df</u>	MS	F	p
<u>nInfluence</u>	200.04	2	100.02	1.29	NS
External Motivation	8.33	1	8.33	41	NS
Interaction	488.52	2	244.26	3.17	NS
Within	3315.02	43	77.09	--	--
Total	4011.92	47	--	--	--

The improvement in the interaction term, however ambiguous in interpretation, suggests that analyzing only the high and low thirds of the distribution might yield clearer results. The results of such an analysis are reported in Table 9.

Table 9. Means and Two-way Analysis of Variance for Subjects' Performance Time deleting the Middle Third of the nInfluence Variable.

<u>nInfluence</u>		External Motivation			
		High	Low		
	High	20.88	12.13		
	Low	19.38	18.75		
Sources of Variance	SS	<u>df</u>	MS	F	p
<u>nInfluence</u>	52.53	1	52.53	<1	NS
External Motivation	175.78	1	175.78	2.29	NS
Interaction	132.02	1	132.02	1.72	NS
Within	2153.14	28	76.89	--	--
Total	2513.47	31	--	--	--

As is apparent from the table the interaction term from the analysis of upper and lower thirds of the nInfluence variable is lower than the interaction term when all three thirds are included. This suggests that the middle third of the nInfluence variable is responsible for a considerable proportion of the variance in performance time.

Due to the lack of support for the hypothesis, one final analysis was carried out. The discrepancies in the average time each confederate spent on the task have already been noted. The lack of results may have been caused in part by these discrepancies. Each subject's time was classified as High or Low according to the median time of the confederate he interviewed. A prediction paralleling the first hypothesis substitutes the variable number of subjects ranked High or Low for the variable time spent on the task:

When compared with Low $\bar{n}$ Influence persons, High $\bar{n}$ Influence persons will be ranked significantly higher on time spent with their respective confederates.

This prediction was tested for each condition of External Motivation. The statistical test consisted in the combination of two Chi Squares from two fourfold contingency tables. (See McNemar, 1962, pp. 220-223) The results of the analysis are reported in Table 10.

Table 10. Contingency Tables for Frequency of Subjects Ranked High or Low by Time Spent with Confederates

		Ranked by Time			
		High		Low	
		External Motivation		External Motivation	
		High	Low	High	Low
<u>n</u> Influence	High	7	3	3	7
	Low	6	5	4	5
		$\chi^2_{yc} < 1$		$\chi^2_{yc} < 1$	
		$\chi^2_{yc \ 1 + 2} = \chi^2_{yc} < 1$			
		NS			

The analysis does not show any relationship between the time spent, shown as High or Low time, and the Subject's treatment group. Therefore the time discrepancies among confederates do not account for the lack of significant findings on the major hypothesis.

The test of the remaining three hypotheses called for a test for differences between the means of two equal and independent groups. Five subjects were randomly eliminated from one group to equalize cell size.

The first hypothesis predicts that: When compared to Low nInfluence persons, High nInfluence persons will enjoy the Influence attempt more regardless of success or failure.

The data were based on responses to the question, "How much did you like or dislike the task you just performed (Item 3)?" The response scale was a five-point Likert type scale ranging from five ("liked a great deal") to one ("disliked a great deal").

A preliminary two-way analysis of variance did not indicate the presence of an interaction between nInfluence and External Motivation. The results of the t test do not support the hypothesis ($t < 1$, $df = 42$, NS). The individual means for the two groups are 3.50 (High nInfluence) and 3.09 (Low nInfluence). The overall mean on this question was 3.10 with a standard deviation of 1.30 ($n=40$). Regardless of the condition, subjects were relatively neutral toward the task they performed.

The second hypothesis predicts that: Under a condition of failure to persuade, High nInfluence persons will be more willing to make a persuasive attempt another time than Low nInfluence persons.

The data were based on responses to the question, "Would you participate in a similar study again if given the opportunity? (Item 12)" The responses were scored on a five-point Likert-type scale ranging from five ("definitely yes") to one ("definitely no"). The possibility of an interaction was checked by a two-way analysis of variance. A

significant interaction did not emerge. The results of the t test do not support the hypothesis ($t < 1$, $df = 42$, NS). The means for the two groups are 3.73 (High n Influence) and 3.59 (Low n Influence). The overall mean is 3.63 with a standard deviation of 1.18. The subjects in general range between "not sure" (3.00) and "probably yes" (4.00) on their willingness to participate in such a study again.

The third hypothesis predicts that: When compared to Low n Influence persons, High n Influence persons will find a persuasive attempt less difficult regardless of success or failure.

The data were based on responses to the question, "How difficult did you find this task to be? (Item 10)" The response scale contained six points ranging from six ("extremely easy") to one ("extremely difficult").

A preliminary two-way analysis of variance shows that no interaction between n Influence and External Motivation occurred. The results of the t test do not support the hypothesis ($t < 1$, $df = 42$, NS). The individual means for the two groups are 2.50 (High n Influence) and 2.32 (Low n Influence). The overall mean was 2.40 with a standard deviation of .92 ($n=40$). As a whole the subjects judged the task to be "very" (2.00) to "slightly" (3.00) difficult.

Additional Measures:

Two other questions are of interest. Both concern possible relationships of n Influence to the sex variable. The first is a pragmatic question. Namely, all the confederates were women; however, 19 of the subjects were men. The possibility that men might have spent a longer time on the task than women was examined. A t test for two

equal and independent groups did not yield a significant difference between the performance times of men and women ($t = 1.14$, $df = 36$, NS).

A more theoretic question is whether men were more likely than women to score high on the nInfluence measure. Taking subjects' classification on nInfluence by their sex, a Chi Square analysis was conducted. The results are shown in Table 11.

Table 11. Contingency Table and Chi Square for the Relationship Between Subject's Sex and Classification on the nInfluence Measure

<u>nInfluence</u>		Sex	
		Male	Female
	High	11	16
	Low	8	14
	$\chi^2 < 1$, NS		

The conclusion drawn from these data is that men and women are equally likely to be High in nInfluence.

This concludes the results section of this thesis.

CHAPTER IV

DISCUSSION

In addition to the lack of significant findings on the major hypotheses, the results do not even "tend" toward the predicted direction. Nevertheless, there are some relationships that deserve attention. The most interesting finding in this study is the interaction which resulted from trichotomizing the nInfluence variable. Particularly puzzling is the fact that the Medium nInfluence condition accounts for a considerable proportion of the variance. The conditions of High External Motivation seem to depress the effects of nInfluence; absence of External Motivation heightens the effect of nInfluence. But such a generalization, in addition to lacking any kind of theoretic support, is complicated by the effects of External Motivation on the upper and lower thirds of the nInfluence variable. It is difficult to determine just how External Motivation interacts with various levels of nInfluence.

The trends that this interaction suggest are ambiguous at best. This interaction shows the wide variability in the dependent measure. Also this finding suggests that simple dichotomies of the variable like nInfluence may gloss over differences in the strength of the motivational states that the nInfluence measure taps. A trichotomization of nInfluence seems to yield information that a dichotomization does not, even though that information does not lend itself to clear interpretation.

The rationale section of this thesis presented a question about the rewarding aspects of the influence attempt. The absence of significant differences on the hypotheses concerning enjoyment, difficulty and willingness to participate in a persuasive attempt again do not permit a definitive statement about the effects of success or failure in the persuasive attempt on the effort expended in that attempt. We can conclude that failure feedback during a persuasive attempt does not elicit different behaviors from High and Low nInfluence individuals. We cannot conclude, however, that the attempt had no reward value. That would require evidence that the High nInfluence group found the task significantly less enjoyable or more difficult, or were less willing to participate in an influence attempt again than the Low nInfluence group. So the question of the reward value of the influence attempt is only partially answered. We only know that the attempt under conditions of failure was equally rewarding for both conditions of nInfluence. More will be said about this later.

The findings of this study provide little validation of the nInfluence measure as a predictor of persuasive behavior. The lack of results on any of the hypotheses tested is difficult to explain. There are several possible explanations, the validity of which cannot be checked with the present data.

One possibility is that time spent persuading another person is not a valid measure of nInfluence. This researcher is unwilling to say that effort expended is unrelated to nInfluence as evidence of the

presence of a motivational state. But perhaps time is not an adequate measure of effort. In fact, during the study there were several individuals who said that they didn't know how to persuade another person or didn't want to persuade another, who still persisted a relatively long period of time. It may be that nInfluence measures pre-dispositions or fears about interpersonal situations rather than predicting actual persuasive behavior.

A second explanation is that the topic chosen for discussion was unsatisfactory. A number of students reported on the post-questionnaire that they would have liked the task better if they had been familiar with the topic, or had felt more strongly that the topic was important. The topic of water fluoridation apparently did not meet these criteria.

A third reason for the lack of results is found in the possible contamination of the manipulation of external motivation. Some of the students were required to participate in this study, others received extra credit for participation, and still others, a small percentage of the total, participated on a purely voluntary basis. In light of this, perhaps telling some that their instructors would receive reports on their performance was an incidental piece of information. Or the information may have been received differentially, affecting some more than others. Unfortunately no check on the effectiveness of the manipulation was made, other than by testing the interaction hypothesis dealing with performance time. Therefore, inadequate manipulation of this variable may account in part for lack of results.

A fourth and more interesting explanation for the results in this study concerns the effect of feedback on the subjects. Originally, the study restricted the nature of feedback to negative feedback, in part because of the mechanics of the study and in part to study the reward value of the influence attempt. The mechanics of the study required holding feedback constant because it was considerably less complicated in training confederates in their roles. Also the number of subjects in the study was relatively small, and varying feedback would have required a considerably larger sample.

However, Berger (1968) has shown that feedback is perceived differentially by High and Low nInfluence subjects. On judgments of perceived persuasiveness, a significant interaction occurred between nInfluence and success or failure feedback.

High nInfluence subjects who received success feedback felt that they had persuaded their essay readers more than did low nInfluence subjects who received success feedback. However, highs and lows who failed had similar perceptions of the persuasive impact of their essays. (pp. 38-39)

It is obvious, therefore, that a validation of the nInfluence measure should include the manipulation of feedback.

Because of these criticisms, several new approaches to the problem are suggested. The simplest modification of the present study is to vary the feedback given to the subjects. Half the subjects would be given negative feedback and half would be given positive feedback. This should allow some analysis of the influence attempt. The major hypothesis in the present study assumed that the attempt itself was rewarding regardless of the success or failure of the attempt. Perhaps

the stated relationship between performance time and nInfluence is not valid for conditions of negative feedback. The High nInfluence individual may be more sensitive to negative feedback (or recognize it sooner) than the Low nInfluence individual. If this is the case, the High nInfluence individual is more likely to perceive that he is going to be unsuccessful and will cease his attempt sooner than the Low nInfluence individual. No case can be made for this position from the present data, but manipulating the feedback should provide some confirming or disconfirming evidence for this position.

A second area of interest concerns voluntary engagement in an influence attempt. The present study made some attempt to assess the relationship between nInfluence and preference for certain behaviors. In the pretest, each subject was asked to rank eight different research areas in terms of their interest for the study. Three of these areas dealt with influence situations; the remaining five were completely divorced from interpersonal situations (traversing finger mazes, learning nonsense syllables, etc.) Unfortunately no relationship between nInfluence and the rankings emerged.

However, a study could be designed which gave each subject the option of taking a direct influence role or a non-influence role. This could be done via a group situation where subjects could assign themselves to given roles (leader, secretary, etc.). Then a correspondence between the role desired by the individual and the role actually played by the individual could be analyzed. If there is a positive relationship between the motivational states of an individual

and the behaviors he elects to perform, studying voluntary behaviors should provide some insight into this.

Another area of inquiry is that of persuasive style. Does the highly motivated individual employ different verbal strategies to persuade than the relatively unmotivated individual? Does the High nInfluence individual seek more feedback from the individual he's trying to influence than the Low nInfluence individual? If the High nInfluence individual is a more successful persuador, we might expect a greater awareness of the opponent's position on an issue and thus areas of possible influence than the Low nInfluence individual.

Such an expectation, however, is based on the assumption that the High nInfluence individual is a more successful persuador than the Low nInfluence individual. This has not been demonstrated. But a study could be designed to determine this. A group of naive subjects could constitute an audience for High and Low nInfluence individuals and the amount of attitude change induced in the audience by each could be ascertained.

In addition to such validation studies, the nInfluence coding scheme might be modified. It is possible that some individual categories of the nInfluence scoring system are better predictors of influence behavior than others. Categories like lack of self-deprication and absence of reminiscence appear to be non-discriminating. But such a judgment is subject to a more systematic consideration. If the nInfluence score were derived from the seven remaining categories, there is a possibility that the classification of High and Low nInfluence conditions

might be different from that using all nine categories. Such an analysis could be done with the present data, but has not yet been attempted.

What future research must do then, is demonstrate the relationship between motivational states and behavior. The present study has not succeeded in doing so. The problem of the valid measurement of motivational states remains unsolved. But the question will remain unanswered until definite behaviors can be predicted from such measures. Whether or not a motivational state actually exists cannot be determined by any other means. Thus, the utility of the nInfluence variable to communication research depends on the accurate determination of the relationship between nInfluence as a measure of the internal motivational state and its power to predict persuasive behavior.

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APPENDIX A

Pre- and Post-Experimental Questionnaires

Description of Stimulus Pictures
Used for TAT Measure

- Picture 1: " 'Army' --- military man instructing five other military men pointing to something like a map. Source: magazine photograph, selected for this study." (Uleman, Appendix E, p. 283).
- Picture 2: " 'Meeting' --- a group of young men seated around a table, with one man standing outside of and away from the group. Source: HG (referred to in Atkinson, Motives in Fantasy, Action, and Society, p. 833, picture #83)." (Uleman, Appendix E, p. 284).
- Picture 3: " 'Papers' --- two young men, the one standing handing papers to the seated one who is smoking. Source: ADI; Atkinson, 1958, p. 832, #4." (Uleman, Appendix E, p. 284).
- Picture 4: " 'Newspaper' --- man seated in easy chair reading newspaper with great interest and concern. Source: slide collection of Dr. Richard Alpert." (Uleman, Appendix E, p. 284).

Name: _____

Student Number: _____

Test of Creative Imagination

INSTRUCTIONS: This is a test of your creative imagination. Four pictures will be projected on the screen before you. You will then have 60 seconds to look at the picture and then four minutes to make up a story about it. Notice that there is one page for each picture. The same four questions are asked. They will guide your thinking and enable you to cover all the elements of a plot in the time allotted. Plan to spend about a minute on each question. I will keep time and tell you when it is about time to go on to the next question for each story. You will have a little time to finish your story before the next picture is shown.

Obviously there are no right or wrong answers, so you may feel free to make up any kind of a story about the pictures that you choose. Try to make them vivid and dramatic, for this is a test of creative imagination. Do not merely describe the picture you see. Tell a story about it. Work as fast as you can in order to finish in time. Make the stories interesting.

PICTURE 4

What is happening? Who are the people?

What has led up to this situation? That is, what has happened in the past?

What is being thought? What is being done? By whom?

What will happen? What will be done?

Name: _____
 Student Number: _____
 Class: _____
 Phone Number: _____

OPINION PROFILE

INSTRUCTIONS: The items contained in this booklet are concerned with your opinions and feelings about various matters. Please read each statement carefully, and then indicate your feelings about the statement on the scale provided. Place an "X" in the space which best represents your view on the statement. Remember, there are no right or wrong answers. Your opinions and feelings are what matter. Go through the items quickly. We are interested in your first impressions.

Example: This is how to use the scales. Suppose the topic is "George Wallace speaking on Black Power". The kind of judgment we want you to make is
 interesting _____  _____ uninteresting.
 You are to judge whether this will be interesting or uninteresting. Suppose you decide he is likely to be interesting rather than uninteresting. This means you would put your check mark in one of the three spaces between the word interesting and the box in the middle of the line. You would show how interesting you think he would be by how close you put your mark to the word interesting. The closer the mark to the word, the more interesting you say you think he is. To help you, imagine that the scale looks like this:

interesting _____  _____ uninteresting
 extremely quite slightly neutral slightly quite extremely

If you think he would be uninteresting, you would follow the same procedure, but you would place your checkmark somewhere on the other side of the center box. If you just can't decide which of the two words best describes the topic, put a check mark in the middle box.

Now turn to the next pages. Read the topics and indicate how you feel on these topics. Remember, place one mark on each of the scales for each topic.

1. Banning radical student groups from university campuses

good	_____	_____		_____	_____	_____	bad
foolish	_____	_____		_____	_____	_____	wise
openminded	_____	_____		_____	_____	_____	narrowminded
dangerous	_____	_____		_____	_____	_____	safe
moral	_____	_____		_____	_____	_____	immoral

- ## 2. Fluoridation of public water supplies

[illegible]

- ### 3. Enactment of strict gun control laws

openminded	_____	_____	_____		_____	_____	_____	narrowminded
dangerous	_____	_____	_____		_____	_____	_____	safe
moral	_____	_____	_____		_____	_____	_____	immoral
bad	_____	_____	_____		_____	_____	_____	good
wise	_____	_____	_____		_____	_____	_____	foolish

- #### 4. Elimination of student draft deferments

safe								dangerous
immoral	_____	_____	_____		_____	_____	_____	moral
good	_____	_____	_____		_____	_____	_____	bad
foolish	_____	_____	_____		_____	_____	_____	wise
openminded	_____	_____	_____		_____	_____	_____	narrowminded

5. Making the sale of cigarettes illegal

moral	_____		_____	immoral
foolish	_____		_____	wise
openminded	_____		_____	narrowminded
dangerous	_____		_____	safe
good	_____		_____	bad

- ## 6. Extending the power of teachers' unions in curriculum planning

narrowminded	_____		_____	openminded
wise	_____		_____	foolish
bad	_____		_____	good
safe	_____		_____	dangerous
immoral	_____		_____	moral

Suppose you were asked to participate in an experiment. What kinds of tasks would you most enjoy doing? Below are eight alternatives. Rank these from 1 to 8, with 1 being the one you would most enjoy and 8 being the one you would least enjoy.

- _____ learning nonsense syllables
- _____ persuading someone to accept a point of view
- _____ traversing a finger maze
- _____ participating in group problem-solving session
- _____ rating the quality of written communications
- _____ using eye-camera to determine eye-movement patterns
- _____ playing a gambling game where you can determine
the outcomes (rewards) of the other players
- _____ running rats in a T-maze

POST QUESTIONNAIRE FOR SUBJECTS

In order for us to get a better understanding of the persuasion process and a better measure of persuasability, would you please answer the following questions. They concern your own reactions and perceptions of the person you have just spoken to.

1. How long would you estimate you spent trying to persuade this person?

_____ minutes

2. What made you decide to stop?

3. How much did you like or dislike the task you just performed?

_____ liked a great deal
 _____ liked somewhat
 _____ neutral, neither liked nor disliked
 _____ disliked somewhat
 _____ disliked a great deal

4. How much do you think the person you talked to enjoyed the discussion?

_____ liked a great deal
 _____ liked somewhat
 _____ neutral, neither liked nor disliked
 _____ disliked somewhat
 _____ disliked a great deal

5. To what extent did you succeed in persuading this person of your point of view?

_____ to a very great extent
 _____ to some extent
 _____ to a slight extent
 _____ not at all

6. What do you think this person's attitude about fluoridation of public water supplies was when you first went in?

_____ extremely opposed
 _____ very opposed
 _____ slightly opposed
 _____ slightly favorable
 _____ very favorable
 _____ extremely favorable

7. What do you think this person's attitude about fluoridation of public water supplies was at the end of the time you spent with him (her)?

☐ extremely opposed
☐ very opposed
☐ slightly opposed
☐ slightly favorable
☐ very favorable
☐ extremely favorable

8. How different do you think the stand you took on the issue was from the person's own opinion?

☐ extremely similar
☐ very similar
☐ slightly similar
☐ slightly different
☐ very different
☐ extremely different

9. How "persuasable" (or susceptible to influence) do you think the person you spoke to is?

☐ extremely persuasable
☐ very persuasable
☐ slightly persuasable
☐ slightly unpersuasable
☐ very unpersuasable
☐ extremely unpersuasable

10. How difficult did you find this task to be?

☐ extremely difficult
☐ very difficult
☐ slightly difficult
☐ slightly easy
☐ very easy
☐ extremely easy

11. What was the hardest part of the task?

12. Would you participate in a similar study again if given the opportunity? (This is out of curiosity. This study is finished.)

☐ definitely yes
☐ probably yes
☐ not sure
☐ probably no
☐ definitely no

Why?

13. Who did most of the talking?

☐ I did
☐ about equal
☐ the other person did

14. Did the person you talked to attempt to persuade you to his (her) point of view?

☐ tried very hard
☐ tried somewhat hard
☐ tried slightly
☐ did not try at all

15. You recall that we asked you during Part One of the study how you felt about water fluoridation. How do you feel now, after finishing this task?

Extremely Very Slightly Neutral Slightly Very Extremely

Wise	☐	☐	☐	☐	☐	☐	☐	Foolish
Narrowminded	☐	☐	☐	☐	☐	☐	☐	Openminded
Safe	☐	☐	☐	☐	☐	☐	☐	Dangerous
Immoral	☐	☐	☐	☐	☐	☐	☐	Moral
Good	☐	☐	☐	☐	☐	☐	☐	Bad

Make sure that you have placed one check mark on each scale for a total of five (5) marks.

16. Do you have any comments to make about the study? Questions? Complaints? Etc.?

CONFEDERATES POST QUESTIONNAIRE FOR SUBJECTS PERFORMANCE

Please answer the following questions.

1. How strong a position do you think this student took on fluoridation of water?

☐ extremely strong
☐ very strong
☐ slightly strong
☐ slightly weak
☐ very weak
☐ extremely weak

2. How hard do you think this student tried to convince you to change your mind?

☐ extremely hard
☐ very hard
☐ slightly hard
☐ not hard at all

3. Do you think the student liked or disliked the task?

☐ liked extremely
☐ liked very much
☐ liked slightly
☐ disliked slightly
☐ disliked very much
☐ disliked extremely

4. If you had not had to disagree with this individual, and you really were opposed to fluoridation of public water supplies, do you think he could have persuaded you?

☐ definitely yes
☐ probably yes
☐ not sure
☐ probably no
☐ definitely no

5. Comments on the interview? Things you noticed about the person?

APPENDIX B

Experimental Instructions

Instructions to Students:

We're asking you to help us out in running a persuasability study. We are trying to get a measure of the persuasability of people, that is, whether people are different in how susceptible they are to changing their minds when someone tries to influence them.

What we want you to do is to try to persuade the person you are about to meet to a favorable attitude (or at least a neutral attitude) about fluoridation of public water supplies. We know from previous questionnaires that this whole group of people coming in tonight are opposed to fluoridation of public water supplies. What you are to do is simply change this persons' mind.

You'll have to use your own judgment on how long to talk. You're free to go on as long as you wish trying to persuade this person. But if you feel that it's a hopeless case, you're free to stop at any time. What we want is some indication from the person that he or she agrees with you, or at least that you have some good points. Now, no one is going to come in to stop you so that will have to be up to your own judgment. Is this clear so far?

O.K. Now for a few more details. We will have to tape record the conversation in order to get the information we need--such as which kinds of arguments were most persuasive. The person knows that the conversation is being taped. He (she) has been told that the discussion concerns fluoridation of public water supplies. But that's about all. We would ask you to be cautious in what you say about what you've been told about the study. Also, since we have many students coming in tonight, would you begin discussing the topic as soon as you have been introduced to the person. Do you have any questions at this point?

Alright, we have several people waiting now. You will be taken individually to the room you've been assigned to, so will you remain here until someone comes to tell you the room you're going to.

Instructions to the Researcher:

Be in Room 207 Wells Hall about 6:25 p.m. each evening. You will have a list of names of people and the times they are to arrive. Find out whether they have arrived at the correct time. If someone who is not scheduled arrives, he will have to return at the time he is scheduled for. This can be checked on the general list of all four nights.

When all the people are present, introduce yourself.

I am _____ from the Department of Communication...etc.

Do not say anything about the study perse in this introduction. Pass out the "Instructions for the Student" sheet. Then read through the sheet with them, stopping for questions. The questions you might be asked are:

1. Where does the TAT test (Creative Imagination test given as a pretest) come in?
The Test of Creative Imagination is a projective technique. This is a possible measure of persuasibility. It was analyzed for all the people participating in the study including themselves. Then half the students were randomly assigned to the task of doing the persuading (like controls) and the others became the experimental groups. We also took care to not put two people from the same class together so that they would not know each other.
2. Why was fluoridation of public water supplies chosen as a topic? They probably remember that along with the Test of Creative Imagination there was a questionnaire covering items like gun control legislation, elimination of draft deferments for college students, extending the power of teachers' unions, etc. For the mechanics of this study, we needed one issue where your group was on one side and the other group was on the other side. Water Fluoridation was the only one that worked. As far as we can tell from the questionnaire everyone here is either neutral or favorable to water fluoridation. At least we would ask you to take that position.
3. Can they go when they're through even if the hour isn't up?
IMPORTANT: Do not give a definite yes or no answer. There is a questionnaire to be filled out after the persuasion task which will take about 5-10 minutes. How long they spend trying to persuade the individual should be dependent on how the task is going. They must use their own judgment as to when to stop.

4. If you find anyone who objects to the study on ethical grounds--deception of the other students, etc. -- the following guarantees can be made:
 - 1) There will be complete anonymity of all information. The only people listening to the tapes or seeing any questionnaires are those involved in the study. No names will be attached to these tapes, merely an identifying number.
 - 2) No one is being asked to take any position or do anything which he would not do in a natural situation. People often try to change the opinions of others. We are only putting it in a situation where it can be observed and where both parties agree to its being observed.

If the student feels very strongly about this, he does not have to participate, but he must wait the time if he is getting extra credit or is required to participate in the study.

Questions that cannot be answered easily can be referred to the main researcher. In general, don't spend much time explaining. TIMING IS OF THE ESSENCE.

After answering these questions, announce that the students will not be taken individually to the rooms. They should wait until they are taken to the room by one of the researchers. Liz Hoerner and Ann Christiansen will be handling this aspect of the study.

Then these researchers will arrive and take over.

Instructions for the Escorts:

You will be escorting each student to a room which is specified in the adjoining sheets. You are to tell him the following as you take him to the room.

You know what you're supposed to be doing, right? **You're** being assigned to Room _____. I'll come in and turn on the tape recorder, but after that you're on your own. I will not be in the room with you. And no one will come in to interrupt you. When you're through, just come out and go to Room 206, next door to where you were before. There is a questionnaire which must be completed, plus a few other administrative details.

Now, check the list carefully. Some of these people will be getting an additional instruction. This will be specified by a "yes" next to the name. The message is as follows:

Your instructor has indicated a great interest in your performance on this task. He has asked us to report to him how well you do in trying to persuade this person.

If he asks which instructor has asked for the report, say the following:

if Psychology 151--- the lecture professor
if Advertising 205-- Dr. Miracle
if Phy. Science 203- the lab. instructor

If there is a "no" beside the name, no other instructions are given to the individual.

Take the student into the room and start the tape recorder. Note the time that you started the tape recorder, and after you're outside the room, write it down beside the name. Then go back for the other student.

Watch in the hall for students who come out early. Remind them to go to Room 206.

If, after 30 minutes had gone by, a student is still talking, interrupt him with the following remark:

We are having scheduling problems. Several people have arrived earlier than they were supposed to. Could you come to Room 206 now? I know you were not supposed to be interrupted, but it just can't be helped.

Now we start over again.

Instructions to the Research Assistants:

The object of your task is to let the subject do all the talking. For this reason we are imposing some restrictions on what you say. The subject will be trying to persuade you to his own opinion about fluoridation of water. He will be told you are very much opposed to fluoridation of water, and anything you say to him should reflect this disposition.

There are a few guidelines which should guide what you say to the subject. First, as far as he knows, you are a student just like him participating in this study under the same conditions--class requirement, extra credit, etc. You know nothing except that you are having a discussion about the fluoridation of water. So don't give away the actual situation. Secondly, relative to what you say, remember that this will be very much dependent on a particular subject. So be flexible in your replies. But keep a few notions in mind. These are very important:

1. Make your replies as appropriate as possible to the questions.
2. Always state or imply disagreement with his opinion.
3. Be as brief as possible in your reply, not more than one or two short sentences.
4. Never ask questions of any kind of the subject.

You might use the following as a model of your responses. First, if appropriate, make a very general vague statement of disagreement:

I don't think that's so.... I can't agree with that.... It just doesn't make sense to me.... I can't buy that idea.... I don't see why you hold that opinion.... Your position doesn't make sense to me.... ETC.

Pause, and see if he starts talking again. If the subject seems to expect more from you (after you've paused) or if he asks you about a specific point, give statements like the following:

I don't think there are any benefits in fluoridating water.... It's probably the effort of chemical companies to sell a product.... There's no proof that it **doesn't** affect things like arthritis or rheumatism.... If it's in the water, people who don't want it have to have it. They don't have a choice....ETC.

If you're stumped and don't know what to say, simply reply:

Well, I don't know anything about that. But what I have heard about fluoridation is bad.

1.2

C

It might not be wise to introduce the issue of a Communist plot involved in the fluoridation of water; they might not believe you're for real. But if the subject raises the issue himself, you can reply:

Well it could be, you know.... There's been a lot of talk about it.... It might be.... ETC.

Do not go into great detail about reasons for any of the above statements. Ad lib, but be vague and negative at all times.

Here are some other guidelines:

5. Do not terminate the interview at any time. Even if you run out of things to say, don't stop. Start repeating arguments. You will be interrupted by the experimenter if the subject has not terminated the interview by one half hour.
6. Do not stop the subject from leaving if he wishes to go. If you can, try to give no cues about his leaving. It doesn't make any difference to you one way or the other. You'll stay if he wants to talk some more. If he wants to go, that's O.K. too.
7. After the subject has left the room completely (i.e., closed the door) turn off the tape recorder and proceed to complete the questionnaire about the subject's performance. Please do not leave the room until 2-3 minutes after the subject has left. If the subject has not taken the full half hour, you can do what you want with the time providing you are back in the room at least 3 minutes before the half hour. We don't want any time delays in the study.

You are crucial to this study. The validity of this project depends a great deal on what you do, so please follow the guidelines set out.

Here are some further suggestions for the kinds of arguments you can use in your task. But don't use the whole argument at once. Try to be brief in your replies, not more than one or two sentences if you can help it. Also, don't rehearse these to the point that you no longer sound natural.

Fluoridation of water is forced onto a segment of the public which doesn't want it. Chlorine is a bacteria killing chemical. I don't object to that. But fluorine is not like that and should not be forced on people by the law. Vitamins are good for you but the law doesn't make people take them. Smoking is harmful, but the law doesn't forbid it. Fluoridation is no different from these and should not be mandatory. It violates people's rights to choose their own health practices. Laws are imposed on drivers, but the law does not require people to drive. If they choose to drive, they are subject to the laws, but not before that. People who don't want fluoride in their water usually don't have private water supplies to get it from without fluoride, and it's unfair to these people even if they are a small proportion of the population.

If people feel they want it, there are other ways to get it than by forcing it on those who don't want it. They can get it in toothpaste, for one thing. Then it's voluntary. Or they can get gadgets to put on their faucets at home that will mix the fluoride in the water in the right amounts automatically. If they feel so strongly about having fluoride they should be willing to pay for it. Or they could get it in tablet form from the drugstore. Their paying for it in taxes; they could spend it these other ways.

People exaggerate what fluoride does. They think that if you have fluoride in the water you'll end up with good teeth. But things like heredity, eating habits, general dental care are a lot more important than fluoride. From what I know you can drink water all day long but if you don't brush your teeth fluoride is not going to do a thing for you. And I know too many kids from families where they have soft teeth, and even the dentist painting the teeth with fluoride doesn't make any difference. In fact, my dentist says that the improvement in dental health is due to people becoming more aware of the proper ways of brushing and going to the dentist more often. It's not due to fluoride. Take people in other countries where there is no Fluoridation in the water. African people or people from South America have better teeth than we do without fluoridation. It's what they eat and heredity.

The research claims fluoride is great, but if it affects teeth, you can be pretty sure it will affect other parts of the body. Probably the bones and bone joints. After all, bones and teeth are pretty much alike chemically. Things like arthritis and rheumatism are possibly affected. There hasn't been enough time to study things like this, but people have to have fluoride without knowing all these things.

Instructions for the Administrator of Post Measure:

You're task is to administer a questionnaire after the students have finished the persuasion task. They will probably come in one by one. Simply hand each one a questionnaire as he comes in. There is not any time schedule to follow. Let him fill it out as fast or slow as he wants. If he needs help, just explain how the scales are used. This particularly applies to the semantic differentials on page 3.

Some of these students are from Psychology 151. They will need a slip verifying that they participated in the study. These are provided by you, and will be signed ahead of time. You will have to write their names on the top line, plus the date. The other students do not need such a slip.

When they are finished with the questionnaire they may go, even if a full hour has not elapsed. They will receive more information about the study in the mail. Do not give any explanations at this point other than that this study is trying to develop a measure of the persuasability of people.

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