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DEVELOPMENT OF A SCHOOL ATTITUDE SCALE AND ITS RELATIONSHIP
TO STUDENT RESPONSE VARIABLES

by

Louis L Rautenberg

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The Graduate College in the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Department of Educational Psychology and Measurements

Under the Supervision of Professor Royce R. Ronning

Lincoln, Nebraska

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Development Of A School Attitude Scale And Its Relationship
To Student Response Variables

BY

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CHAPTER I

INTRODUCTION

In the world today it is necessary for diverse groups and cultures to interact with one another, whether or not they wish to. Recent advances in communication, transportation, and industry as well as the omnipresent threat of the destruction of mankind have created a mutual interdependence among cultures and subcultures for their livelihood and survival. Thus the ways various groups of people conceive of their life styles is important. When we study these aspects of life, we are also studying attitudes (Sherif, 1967).

The concept of attitude is probably the most distinctive concept in American social psychology. Many researchers have reduced psychological phenomena such as perception, judgment, memory and learning largely to the operation of attitudes (Allport, 1973).

Without an attitudinal frame of reference to guide them, individuals would be unable to make satisfactory observations and judgments, or make satisfactory cognitive responses. Attitudes largely determine what individuals perceive, what they think, and how they behave. They help to define an otherwise chaotic environment. Attitudes are individual mental processes which determine both the actual and potential responses of people in the social world (Allport, 1973).

Attitudes are studied because they are an integral part of everyday life. They generate effects upon current experiences, and the evaluation and appraisal of new conditions. An individual's

attitude toward an object has many of the properties of a hypothesis in that it systematizes and orders old experiences and relates and integrates present events into the individual's present belief systems and information systems (Asch, 1952). Attitudes sensitize the individuals to events they might otherwise overlook, while at the same time enabling them to ignore extraneous information which might otherwise confuse them.

Still another reason for investigating attitudes is that most psychologists have come to realize that the behavior of an individual at a particular moment is often not understandable simply in terms of the properties of the given stimulus situation. An important factor is the individual's set, or how one is prepared to understand the situation. Most researchers agree that attitudes are enduring and relatively stable sets formed by prior experience. Understanding individuals' attitudes enables us to better understand their behavior.

At first glance, attitudes appear to complicate the study of behavior. However, they offer a number of potentially useful approaches to analyzing behavior. An attitude is in effect an intervening variable between a stimulus and a response. Thus all theories of attitude assume that a single stimulus is not the sole determinant of a given response.

Psychologists and educators are concerned with identifying and dealing with maladaptive behavior. Since an attitude is one of the determinants of behavior, attitude change may lead to behavioral change. Consequently, a major purpose of investigating attitudes is

to help individuals develop more positive attitudes toward objects and events that the investigator, educator, psychologist and society value as part of an overall plan to replace individuals' maladaptive behaviors with more appropriate behaviors.

Purpose

The main purpose of this investigation was to identify students' behaviors that are related to their attitudes toward school, in order to determine if there are any observable indicators of students' school attitudes. The question of which student behaviors can be predicted from their orientations toward school was also examined.

A reliable instrument measuring high school students' attitudes toward school was developed in the pilot phase of the investigation. This questionnaire was used to examine the relationship between students' school attitudes and several sets of variables such as indicators of students' behavior and socioeconomic status.

The question of which variables are related to students' attitudes toward school is still for the most part unanswered. The relationship between school attitudes and indicators of pupils' behavior such as class cutting, lateness, behavior leading to disciplinary action by teachers and administrators, and participation in extra-curricular activities has not been examined. It is reasonable to speculate that these behaviors are related to pupils' school attitudes.

The relationship between students' school orientations and indicators of parental involvement in their education such as attending

parent-teacher conferences was also examined. Does parental involvement affect students' school attitudes?

This investigation also tested the relationship between pupils' attitudes toward school and indicators of their attitudes toward their coursework, such as their attitudes toward their favorite and least favorite subjects. To what extent are students' attitudes toward their school subjects related with their general orientations toward school?

This study also investigated whether high school teachers are aware of their individual pupils' attitudes toward school, and whether high school students can predict their peers' attitudes toward school. Finally, the relationship of students' school attitudes and such variables as academic success and indicators of socioeconomic status was examined.

Attitude Theory Review

Many theories of attitude have been developed. They can be divided into two broad categories: learning based theories and expectancy value or cognitive theories.

Learning Based Theories

Learning based theories of attitude formation have been developed using principles from general learning theory. Each of the major variants of learning theory has been applied to attitude theory. Skinner and his followers define attitudes simply as overt behaviors.

Attitude change becomes a matter of shaping overt behavior by varying schedules of reinforcement (Smith, 1973). Hull's S-R learning theory has been used by theorists such as Doob (1947) and Fishbein (1967). There is empirical evidence, e.g., Scott (1957), supporting predictions from reinforcement theory that attitudes can be shaped by reinforcement. Some theorists have demonstrated that attitudes can be established by the procedures of classical conditioning, e.g., Staats and Staats (1958) and Staats (1975). Other investigators such as Osgood, Suci and Tannenbaum (1957), Rhine (1958), and Fishbein (1967) developed learning based theories in which attitudes are viewed as referring to the evaluative portion of a total meaning response.

Lott and Lott (1968) formulated a theory of attitude formation based upon Hull's S-R learning theory. The primary principle of the learning of attitudes is that if an individual is rewarded in the presence of another individual, a positive attitude toward the other person will be formed. An anticipatory goal response (rg-sg) will become conditioned to a discriminable stimulus person (Sp) who is consistently present while an instrumental response (Rx) is reinforced. In such cases, positive attitudes will be acquired.

For this theory, the only necessary condition hypothesized for the formation of a positive attitude toward a person is his consistent presence during the receipt of reward. The greater the delay in reinforcement, the weaker the generalized anticipatory goal response (rg-sg) and consequently the weaker the magnitude of attraction to the discriminable stimulus person (Sp). The presence of a liked

person or the person's approval of certain behaviors should serve to strengthen or maintain the behavior of an individual who is attracted to this person.

Fishbein (1967) has developed a model that looks at the relationship between attitudes, behavioral intentions, and behavior. The theory incorporated many of the concepts from Hull's theory of learning. Individuals' intention to perform a given act (BI) is a function of their attitude toward performing the act (A-act), and of their normative beliefs (what they believe they are expected to do in the given situation (NB)), and the individuals' motivation to comply with the norms (Mc). The relationship is represented by the formula: $B \text{ (behavior)} \sim BI = (A\text{-act})W_0 + [NB(Mc)] W_1$: where W_0 and W_1 represent theoretical weights.

Cognitive Theories

Cognitive or expectancy value theories of attitude formation analyze overt behavior through the relationship between attitudes and beliefs. The roots of cognitive theories stem from Gestalt psychology. Expectancy value theories account for differences in individuals' perceptions of objects (Ostrom, 1968). They also typically assume that the meanings of objects can be altered through communication. The magnitude of prestige that an individual ascribes to a communication has a significant influence on the cognitive interpretation it receives. The communication of information among individuals has an effect upon their attitudes. Cognitive theorists deal with mental processes such as motivation in their theories. The

basic theoretical problem is to establish the mechanisms which link elements within cognitive structures (Greenwals, 1968). The theories of Toman (1932) and Atkinson (1957) are examples of cognitive theories.

Edwards (1954) developed an expected subjective utility model of attitudes which is based on the concept of the subjective value or utility of the alternatives among which an individual must choose. It is assumed that people behave rationally in that they select the behavior which is most likely to lead to a favorable outcome when they must make a behavioral choice.

Lewin (1951) developed a cognitive theory of attitudes. He postulated that behavior (B) is a function of the person (P) and the person's environment (E); $B = f(P, E)$. Lewin used the concept of valence to refer to a person's feelings toward the attitude object. Lewin (1935) hypothesized that valence takes place when the attitude object is placed into a new context and changes its location in the individual's life space.

Heider (1946) proposed that there are three basic elements involved in an attitude: the focal person (P), another person (O), and an object or event (x). The principal assumption behind Heider's formulations is that there is a motive to maintain balanced and harmonious relations between cognitive elements. A balanced state exists if all three sides of the triad are positive (+) or if two sides are negative (-) and one side is positive. For example if the focal person (P) has a negative attitude toward the other person (O)

and if (P) has a positive attitude toward the object (x), and (O) has a negative attitude toward (x), there exists a balanced state (see Figure 1). When there is an unbalanced state, i.e., when (P), (O), and (x) are not in harmony, there is a stress to move to a balanced and harmonious state.

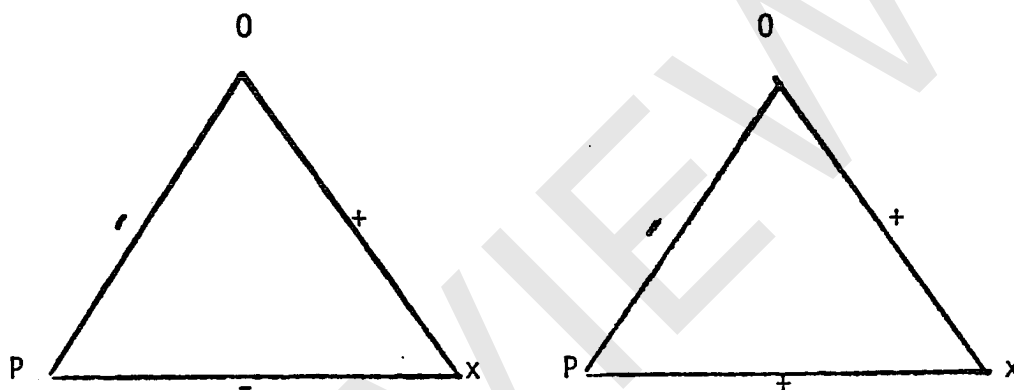


Figure 1. Examples of balanced and unbalanced harmonious states.

Newcomb (1959) developed a balance theory in which the concept of orientation is paramount in explaining attitudes. Orientation is defined as "that existing organization of the psychological processes of an organism which affects its subsequent behavior with regard to a discriminable object or class of objects" (Newcomb, 1959). Briefly there is a system of orientation consisting of the orientation of A (a person) toward B (a fellow communicator) and X (an object of communication), and the orientation of B toward A and X. Generally, changes in one or more orientations will lead to changes in at least one of the others. As in Heider's theory, there is a tendency to strive toward equilibrium or balance. When a system of orientation gets out of

balance, there may be an attempt toward the regaining of equilibrium.

Rosenberg (1956) defines attitude as a relatively stable affective response to an object. He postulated that this attitude is accompanied by a cognitive structure made up of beliefs about the potentialities of that object in attaining or blocking the realization of valued states. The more instrumental an attitude is in obtaining goals which he places a positive value upon, the more favorable is the individual's attitude toward the object. Rosenberg expressed his theory in the formula:

$$A_c = \sum_{i=1}^n I_i V_i$$

where (I_i) is instrumentality (i.e., the probability that the object would lead to or block the attainment of a goal value), (V_i) is value importance, and (n) is the number of goals or value states.

Rosenberg's functional approach assumes that the formation and changing of attitudes can only be understood by examining the functions that attitudes serve for the individual. The purpose of attitudes is to enable the individual to achieve certain goals.

Festinger (1957) developed a theory of cognitive dissonance. He stated that dissonance is psychologically uncomfortable and that an individual will try to reduce the state of dissonance: (a) an individual may add new cognitive elements that are consonant with the cognitive element, or (b) the importance of either or both of the items of the dissonant relationship to the individual may be lessened.

Jones and Davis (1965) and Kelley (1972) developed attribution theories which emphasize the formation and change of beliefs.

Jones' and Davis' theory of attribution processes is based upon personal causality. An individual must decide which, if any, effects on another person's behavior were intentional. The degree of certainty of attributions is dependent upon the magnitude of desirability of the effects produced by a behavior, and to what extent the effects of the action are common to alternative behaviors which were part of the actor's repertoire of behaviors. In a case where the effects produced by an actor's behavior are undesirable and unique, an individual would be fairly confident that the actor intended the observed effects to occur.

Kelley (1972) formulated two principles of causal attribution: the principles of covariation and multiple plausible causes. The principle of covariation states that an effect is attributed to that condition which is present when the effect is absent. The principle of multiple plausible causes states that the smaller the number of plausible explanations of the observed behavior, the greater the certainty of any given attribution. In other words, in an instance where there are very few other logical explanations, there is a great likelihood that the actor planned or intended the observed behavior to occur.

In summary, theories of attitude can be divided into two major groupings: learning based theories and cognitive theories. Learning-behavior theory has been useful in analyzing the acquisition of attitude components and their role in determining behavior. S-R theorists such as Staats and Staats, and Lott and Lott have analyzed

cognitive components of attitudes in terms of implicit or overt verbal responses which are connected with the attitude object through reinforcement.

Cognitive theorists have looked at more complex intervening variables such as motivation, internal states of the individual, and communication of attitudinal information. Psychologists such as Heider and Newcomb theorized that there is a tendency for attitudinal systems to move toward a balanced state. Festinger hypothesized that individuals strive to reduce dissonance, and Jones' and Davis' attribution theories emphasize the formation and change of beliefs.

Attitude Measurement Theory

Attitudes are both complex and diverse. By comparison, the logic of attitude measurement is comparatively simple. Measurement consists of collecting information based upon observations of people's behavior and assigning numbers to the observations according to certain rules. Attitude measurement becomes more complicated when we attempt to determine what observations we should record and what rules we should follow (Lemon, 1973). The procedures used to measure attitudes are dependent upon the investigators' theoretical assumptions, the characteristics of the attitude being measured, and the nature of the relationship between the attitude and the system of rules that are used to assign numbers to the behavioral observations (Lemon, 1973).

There are several major approaches to measuring individuals' attitudes: (a) interviewing and standardized measures of data collection

such as the checklist and semantic differential, (b) scaling models such as Guttman's, Likert's and Thurstone's, and (c) indirect methods of attitude measurement.

In their present state of development, attitude scales cannot be used to make fine discriminations among people. Their chief function is to divide people into relatively broad groups and make comparisons among groups in relative but not absolute terms (Oppenheim, 1966).

The interview is a direct method of attitude measurement because the behaviors it elicits are usually self reports by people about their feelings and intentions toward attitude objects. Interviews offer investigators much flexibility, but they do not yield standardized data and are often unreliable (Lemon, 1973).

Standardized Methods of Attitude Assessment

Perhaps the simplest of the standardized methods of attitude assessment is the checklist, whereby the subject is presented with a checklist of items and asked to indicate approval or disapproval of each item. There are, however, some serious problems in using checklists, since they are rather crude measures and it is easy for respondents to check items carelessly (Lemon, 1973).

Osgood, et al. (1957) developed the semantic differential to measure people's attitudes. The instrument generally consists of a number of seven-point, bipolar rating scales, with each end point described by an adjective. The respondents are typically given a set of such scales, and their task is to rate a number of items on each scale in turn (Oppenheim, 1966). Osgood defines three dimensions of the

semantic differential: evaluative, potency and activity. Fishbein (1967) defines a fourth dimension which he calls the probability dimension.

The semantic differential has been shown to have approximately as much reliability and validity as the other commonly used attitude scales (Lemon, 1973; Osgood, 1957). As are virtually all other attitude scales, the semantic differential is susceptible to the effects of response biases such as social desirability and the halo effect.

A method of measuring attitudes which has some similarities with the semantic differential is the repertory grid technique. Some of the various forms of this technique were developed by George Kelley (1955). This method is sometimes used in studying personality; infrequently to measure attitudes. Repertory grids make use of a number of construct labels. They are of value in analyzing individuals' attitudinal construct systems, but do not locate an individual's attitude in comparison to other individuals. A major disadvantage of this technique is that it is very time-consuming and requires much supervision in administration (Lemon, 1973).

Scaling Methods

There are three major types of scaling methods used in attitude measurement: Thurstone's equal appearing interval scale, Likert's method of summated ratings and Guttman's scalogram analysis.

Thurstone scales. Thurstone (1929) assumes in his equal appearing intervals model, that a given value of an attitude will be