

A PROPOSED PROGRAM OF RESEARCH IN THE GENETICS OF ATTITUDES*

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I. Introduction

That attitudes are presumably closely associated with overt behavior is attested by both scriptural and profane writings. "As a man thinketh in his heart, so is he" finds its modern counterpart in current educational philosophy as exemplified in statements of educational objectives. Such expressed aims as "worthy home membership," "worthy use of leisure," "citizenship," and the omnibus concept of "character" require no detailed analysis or argument to show them as heavily loaded with what may conveniently be called attitudes. The assumption of the psychological validity of this proposition is clearly evident at the present time in the educational procedures in Italy, Germany, and Russia, where public education as a propaganda arm of government is explicit. No education in any organized modern society, we submit, can afford to neglect attitudes as outcomes of the educational processes with which it concerns itself. Putative democracies as well as dictatorships of whatever sort must recognize and deal with the problems if they expect to control individual and social behavior to the end of their own survival. Whatever our social and educational philosophy, attitudes as objectives cannot be ignored.

While much has been said and written concerning the importance of attitudes, little has been done in the way of measuring them. We know practically nothing, in any scientific way, concerning the factors that produce one kind of attitude as against another, to say nothing of the optimum conditions for the development of a given attitude. Since specified attitudes are among the important aims of education, it follows that to know whether and to what extent a specified attitude has been achieved, it must be measured.

The work on generalized attitude scales¹ has demonstrated the feasibility of validly measuring a large number of attitudes with a single scale. The chief objection to Thurstone's method of constructing attitude scales has thus been overcome—that of the enormous labor involved in constructing the scales required for measuring even a small number of socially significant attitudes. Investigation of the factors which make and unmake attitudes can thus be carried out at enormously less cost than would otherwise be the case. *A relatively small number of scales will serve to measure substantially all of the attitudes with which any society is concerned as outcomes of education.* To measure any one attitude with a reliability approximately that of educational achievement tests requires about three minutes.

II. Postulates Underlying the Program

Any experimental research involves postulates. It will be best to

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¹Remmers, H. H. and Silance, Ella B., 1934. Generalized attitude scales. *J. Soc. Psychol.* 5:298-312.

Remmers, H. H. and others, 1934. Studies in attitudes—A contribution to social-psychological measurement. *Bulletin Purdue University, Studies in Higher Education.* 15.

state explicitly the assumptions underlying the program of research here proposed. It is postulated that:

1. Attitudes as entities are insufficiently defined at present for satisfactory measurement of them. For example a "scientific attitude" detached from any object *toward* which the attitude is expressed or expressible may be merely an imaginary quality with no phenomenal existence. Operational definitions of attitudes are necessary, and generalized attitude scales meet this requirement.

2. Attitudes are the dynamics of human action, and as such they have high importance in all individual or group action that concerns society.

3. Educational procedures, curricular content, and experience in general can and do change attitudes.

4. To know whether attitudes as educational objectives are being achieved, they must be measured.

5. The extent to which various factors influence attitudes can be measured experimentally by means of generalized attitude scales. The significant work of Thurstone and Peterson on the influence of moving pictures on high school pupils' attitudes make this perhaps more than an assumption.

III. Type Investigations.

The experimental investigation of factors affecting attitudes will follow a relatively simple pattern of group experimentation. These experiments may use the single group procedure without a control group, or such a control group may be used.

To illustrate: Suppose it were desired to measure the shift in attitudes toward specified vocations by means of a course in vocations such as is frequently given in the high schools. A measurement with one form of the Scale to Measure Attitude toward Any Vocation at the beginning of the course will be compared with a measurement with the second form of the same scale. As a double precaution, a control group of pupils possibly in another school who do *not* take the course may also be measured,² since it is always possible that the shifting social continuum apart from the educational procedure involved in the "vocations" course might also produce significant changes in attitudes.

A few type experiments now feasible in terms of generalized attitude scales already constructed may serve the purpose of illustration.

1. An experiment to determine the possibility of shifting attitude toward some racial group such as the negro. Grice³ found the average attitude of rural Indiana high school pupils extremely unfavorable toward the negro, although in all probability these pupils had seen very few negroes, and were not acquainted with them in face-to-face social relations, since no negroes lived in these rural communities. The effect of information about the social, cultural and economic growth of the negroes, the effect of the reading of imaginative literary productions such as *Uncle Tom's Cabin*, and, in general, the effect of any educational materials whatsoever related to this topic can be measured. To the

²It should be noted that Thurstone's conclusion *re* movies in the Payne Fund studies were based upon the single group technique, and that no control groups were used.

³See Remmers and Others, *op. cit.*

extent that significant shifts in attitudes occurred, such experiments would imply the need for the validation of curricular content and educational procedures in terms of attitude objectives.

2. The extent to which attitude toward a proposed curricular change can be shifted by means of an editorial campaign in a newspaper can be made the subject of experimentation. To make the illustration concrete, let us suppose that it is proposed to introduce a course in philosophy at Purdue University, where such a course is not now offered. Prior to the editorial campaign in the student paper an adequate sampling of student attitude can be obtained by means of one form of the Scale to Measure Attitude toward Any School Subject.⁴ Following the editorial campaign designed to show the desirability of a course in philosophy (and, if desired, at intervals during the campaign) further measurement will reveal the efficacy of the campaign. This general type of experiment obviously has many possible variants and applications.

3. Suppose that attitude toward the New Deal is a variable of educational concern in a course in current problems. The effect of any definable curricular content, arguments pro and con, class discussion, etc., bearing on the problem can readily be evaluated by means of the Scale to Measure Attitude toward Any Social Institution.⁵

4. Again, suppose that an industrial problem of current concern be at issue, such, let us say, as labor representation through the company union versus the American Federation of Labor. Suppose this problem to be taken up in a course in industrial personnel or industrial management. A presentation of relevant materials, study of such materials, class discussions, etc., can be measured for their individual or combined effects on attitude toward one or the other method of representation.

5. Suppose again that the effect of a radio program designed to shift attitudes were to be evaluated. Obviously scales of the sort here under construction would make such investigation a relatively simple matter. This holds for the influence of moving pictures, advertising, speaking campaigns, etc.

6. In general the foregoing illustrations will make clear the possibility of evaluating the achievement of attitudes viewed as educational objectives and outcomes. That attitudes so viewed are of first-rate social and educational importance probably needs no extended argument.

7. Apart from the experimental investigation of factors affecting attitudes there are surveys of existing attitudes which should prove fruitful. For example, relatively brief surveys of attitudes of high school and college students toward various school subjects have already revealed significant variations in attitudes toward these subjects. If, as seems reasonable, it be assumed that student attitudes toward curricular offerings are of importance in relation to achievement in these subjects, such surveys should be extended until sufficiently representative data are obtained to give a picture of the total situation within a given school, school system, state, nation, or other geographical, educational, or

⁴See Remmers and Silance and Remmers and others, *op. cit.*

⁵See Kelley, Ida B. "The construction and validation of a scale to measure attitude toward any social institution" in the Monograph by Remmers and Others, *op. cit.*

governmental units, to the end that educational practice may be more intelligently guided by such findings.

IV. Scope of the Proposed Program

In accordance with postulate 1. page 242, it is proposed to assemble a list of the more important objects of attitudes with which education should be concerned by a survey particularly of the literature dealing with education, sociology, economics, and the social sciences in general. To supplement this list, a questionnaire addressed to a representative sampling of educators, social philosophers, sociologists, business men, and others presumed to have competence in the matter will be sent out and the returns analyzed. The obtained list of attitudes will then be related to generalized attitude scales already constructed to determine to what extent additional scales may be required.

At the same time, some experiments of the type previously outlined can be initiated and carried through. These will serve as further orientation in the procedures which seem most promising in further prosecution of the general program. An experiment on shifting attitude toward a racial group by means of allowing the experimental subjects to read a short story dealing with a racial situation (Jews in Germany) is now under way and should be extended. Preliminary results are positive. The experiment on the effect of an editorial campaign on attitude toward a course in philosophy has been completed. In general the areas of most needed experimentation will be determined from the survey described above.

The proposed researches will have theoretical implications with respect to learning incentives and certain areas of social psychology. The practical implications concern educational procedures—their validation and possible redirection.