

Measuring Affective Experience

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The Problem

The experiment which I am reporting was designed to investigate a problem directed toward further simplification and improvement of attitude measurement techniques. Since the study is still under way, it will be possible to give in this paper only a brief resume of a preliminary study and a description of the progress and the objectives of the major study. The nucleus of this investigation has grown out of a rather critical analysis of the several methods which have been used in the measurement of attitudes.

It may be recalled that most of the instruments used in measuring attitudes make use of statements about some attitude object. In some of the scales, such as those begun by Thurstone¹ and the variations developed by Remmers,² subjects are allowed to express their attitudes by indicating those statements with which they agree. In others, such as those proposed by Likert,³ subjects are allowed to indicate an amount or degree of agreement with statements.

When these statements are carefully analyzed, it may be observed that usually only one or two words in each statement are important in determining its favorableness or unfavorableness. A few words, such as "interesting" and "uninteresting" or "desirable" and "undesirable," are the key words which allow subjects to express favorable and unfavorable responses. Some statements have contained qualifying words expressing how desirable or how interesting, as for example "slightly interesting" or "very desirable."

This paper is primarily concerned with the functioning of these key words. They may be classified into two types, those indicating favorableness or unfavorableness which we shall call "directional words" and those indicating an amount of favorableness or unfavorableness which we shall call "intensity words."

If the element in the language which indicates an individual's attitude is contained in these directional words and intensity words, it would seem to be possible to combine them into phrases, obtain scale values for these phrases, and use them in much the same way that statements have previously been used in attitude measurement. For example, the directional word "inspiring" which points toward or indicates a favorable reaction, plus the intensity word "greatly" which tells how inspir-

¹ Thurstone, L. L., and Chave, E. J., 1929. Measurement of attitude toward the church. Univ. Chicago Press. p. 2.

² Remmers, H. H., 1934. Studies in attitudes. Studies in Higher Educ., 26; Bull. Purdue Univ. 35.

³ Likert, Rensis, 1932-33. A technique for the measurement of attitudes. Arch. Psychol. 22.

ing, together constitute the phrase "greatly inspiring" which, it would seem, could be used to express how one felt about a speech, a teacher, or a book. If scale values could be obtained for all such phrases expressing the direction and the intensity of one's reactions, it should be possible to measure reaction toward any situation by simply selecting appropriate phrases from the list.

In terms of attitudes if one wished to measure, let us say, attitude toward a teacher, he would need to select from the list of scaled phrases a number of phrases which would allow one to express a reaction toward a teacher. That group of phrases might then be thought of as a scaled measuring instrument since values for each of the phrases would be known. In a similar manner other groups of phrases might be selected for measuring other attitudes. Such a technique would greatly reduce the labor involved in the construction of measuring instruments and, at the same time, increase the possibility of measurement to an infinite number of objects or situations.

Preliminary Experiment

At the time this problem was being formulated it became possible, in connection with another study, to test out, in a measure, the success which might be expected in scaling phrases apart from other sentence structure. Although the phrases in this preliminary study required a comparison of two objects or situations, the study seemed to support the hypothesis that single phrases may be scaled quite successfully.

In this preliminary experiment, 14 phrases expressing degrees of comparison were used. They were designed to represent two continuums as follows: (1) Very much inferior, much inferior, slightly inferior, equally as good, slightly superior, much superior, very much superior; (2) very much less often, much less often, slightly less often, equally as often, slightly more often, much more often, very much more often.

Scale values were obtained separately for each of these expressions by the psychophysical method of equally often observed differences. The sheet which you have indicates graphically the scale values for the two continuums. The tables show the scale and Q-values on a 7-point continuum and the probable Q-values on an 11-point continuum. It will be noted that the expressions received values on a 7-point continuum which closely correspond to the seven integers spaced at equal intervals along an arbitrary continuum. Q-values compare very favorably with Q-values obtained on items which have been used in attitude scales. From the results obtained in this preliminary experiment the scaling of single phrases seemed plausible, and the major experiment was set up.

The first step in the major experiment was the selection of a sufficiently extensive list of suitable phrases. A preliminary investigation of words and their meanings seemed to indicate that such phrases might well be limited to those expressing an affective experience. They are, at least from the standpoint of logic, the fundamental expressions of attitude; and, inasmuch as it may be observed that many statements used in attitude scales simply describe the attitude object,

it would seem possible that such statements might be less indicative of a true reaction than statements directly expressing affective experience. Attitude can only be secondarily inferred from a descriptive statement. For example, if a child said that a teacher was strict, we should probably infer that the child disliked the teacher, but quite the contrary may have been true. On the other hand, if the child said that he liked or disliked the teacher's rules, there could be no mistake. Of course, this is a hypothesis, and its empirical validation should be considered as an auxiliary part of this experiment.

With this delimitation to words clearly expressing an affective experience, Roget's *Thesaurus of English Words and Phrases* was carefully searched for all suitable words, and the three following lists were compiled.

1. Directional words expressing a favorable response.
2. Directional words expressing an unfavorable response.
3. A list of intensity words which could be used to express an amount or degree of favorableness or unfavorableness.

Words having equivocal meaning were eliminated. Even though such words as "thrill" and "provoke" express affective experience, they are not useful as directional words because they sometimes have favorable and sometimes unfavorable connotations.

After the undesirable words were eliminated, there remained 108 positive directional words, such as acceptable and admirable, 146 negative directional words, such as disagreeable and displeasing, and eight intensity words, such as slightly and decidedly. It is interesting to note that there are many more ways of expressing unfavorableness than there are of expressing favorableness.

The directional words were set up in tabular form in order to study their applicableness to many different types of objects and situations, and it was discovered that a rather small number of these words could be readily applied to most situations. Although it is planned eventually, if necessary, to obtain ratings on all of the directional words, each in combination with several different intensity words, for the present experiment only ten were taken from each of the favorable and unfavorable lists. It is believed that the number of intensity words it will be necessary to use may be reduced to as few as three or four when it is learned how advantageously they space themselves along the continuum.

The experiment has been carried only to the point of scaling. However, an exhaustive study of reliabilities and of various functions of measuring instruments made up of phrases selected from the scaled list has been outlined. If it is found that the scaled phrases function satisfactorily as measuring instruments, when the complete list is scaled it will be possible to measure any affective experience by simply using the appropriate phrases.

This experiment should be particularly interesting to those who have been interested in the science of semantics.