

Construction of Attitude Scales—(1)

By

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AN attitude is a tendency or disposition to react positively or negatively towards something. This "something" is called the "referent". It may be a *person*, for example, "This nurse has got a hostile attitude towards the matron"; or a *group*, for example, "Her attitude towards her classmates is warm and friendly"; or it may be a *material object*, as for example, "She adores money" or it may be *ideas*, for example, "This student likes Chemistry best"; or it may be a *practice* or it may be an *institution*, as for example, "She always had suspicions about hospitals managed by private boards of trustees".

Two things are clear, from the above-mentioned examples :

1. The attitude always has a referent—the matron, classmates, money, chemistry and hospitals.
2. The attitude has a direction—positive or negative, which may be referred to as its "valence", a very appropriate term borrowed from the physical sciences. Each attitude has a positive or negative valence towards its referent.

3. There are degrees of favourable or unfavourable attitudes, for example, one girl may be mildly interested in nursing, another very much interested and still another cannot think of anything else except a "nursing career". In each case, the valence or direction of the attitude towards nursing is positive, but there is variation in intensity, in terms of the effort and sacrifice each girl puts forth to get herself trained.

We seem to be continuously forming positive or negative attitudes towards several referents in our environment.

Measurement of Attitudes

Attitudes have been subjected to measurement with the help of rating scales. The purpose of an attitude scale is to give a numerical value to the individual's standing on the scale of favourable—unfavourable attitude. Scaling methods are devised to tell us just how favourable a person's attitudes are towards some problems and just how intensely and consistently he holds them.

Out of the several techniques for constructing attitude scales, the two methods detailed below are most useful from the point of view of rationale, feasibility, ease of scale-construction and reliability of obtained results.

The Method of Equal-appearing Intervals

Proposed and developed by L.L. Thurstone¹, this method is an

1. "The measurement of Attitude"—L.L. Thurstone and E.J. Chave 1929. The University of Chicago Press, Chicago, Illinois.

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Readers will be interested to consider the parts of such a technique which we ourselves could develop and use with excellent effect in solving nursing problems. Dr. Stephen Corey's outline, which follows Dr. Rao's scholarly article is helpful here.

We also appreciate the need for help from experts such as Dr. Rao, in using statistics and research methods correctly. It is good to have social scientists ready and able to help nurses in effective use of the very complicated techniques of research.

adaptation from the well-known psycho-physical method of "Equal-appearing intervals", where the unit of measurement is the subjective perception or appreciation of the "Just noticeable difference".

Steps in the development of the scale

I. Collection of a preliminary list of statements.

A large number of statements may be collected from several sources such as newspapers, books, magazines, conversations with people, asking people to write down their opinions on the issue. These opinions have to represent the entire range of possible ideas on the problem, along the entire attitude continuum.

II. Editing of statements

The statements so collected are edited to correct phraseology, avoid repetition of ideas, improve clarity of statements etc. It is fruitful to employ the following criteria in selecting statements : (adapted from Wang¹)

(a) The statement must be debatable, that is, it must reflect opinion and not fact. For example, compare the two following statements :

(1) Nursing is a form of Professional service. (2) Nursing is the most important of the professional services.

Statement (1) is a statement of fact, where there can be no controversy, whereas (2) is debatable, as it is an opinion.

(b) The statement should be re-

1. Wang, C.K.A. "Suggested criteria for writing attitude statements. Jour. of Soc. Psy.—1932—3—367—373.

levant to the attitude-variable under consideration.

(c) The statement should be simple and short. Complex and compound sentences should be avoided as far as possible.

(d) The statement should be complete in denoting a definite attitude towards a specific issue.

(e) The statement should be worded in active and not in the passive tense.

(f) Double-barrelled statements should be avoided, as they tend to be ambiguous. In other words, the statement should be subject to just one interpretation.

For example, "I believe in the ideals of service and sacrifice in nursing, but I resent the authoritarian trends".

With such statements the subject is put in a quandary by the two different ideas.

(g) Statements which will be endorsed by a very small group of subjects should be avoided.

For example, "I go to hospitals, because I consider it delightful to see the nurses in uniform".

This, obviously is an opinion held by very few people, and, as such, cannot be included in the attitude scale.

(h) The statement should reflect the *present attitude* of the subject. So, the wording should be in the present tense. Otherwise there will be conflicting opinions arising out of past and present attitudes.

(i) Each statement should contain the term of issue as its subject.

For example, if the issue is on "Nursing Care", every statement should contain the term "Nursing Care" or if it is a scale to measure the attitude of the community towards the home-visiting public health nurse, every item should contain the term "public health nurse".

III. Evaluation of items

After editing, the statements are mimeographed on small, separate slips of paper. A group of experts are asked to judge the degree of favourable or unfavourable

attitude expressed by each statement on an 11-point scale designated by alphabetical letters "A" to "K". "A" represents the most favourable attitude and "K" the most unfavourable, and the other letters the varying degrees of appreciation or depreciation between. Each judge has to put each statement under the different categories (letters of the alphabet) not according to his own opinion about them, but according to the degree of favourable or unfavourable attitude expressed by the statement.

Note : (a) *Number of intervals on the scale.* Thurstone and Chave have divided the attitude continuum into 11 intervals. It is possible to use a 5 or 7 or 9-point scale also.

(b) *Source and number of Judges.* College students are often chosen to act as judges because of their easy accessibility and willingness to cooperate. Adult, educated groups may also be used.

Though Thurstone and Chave used 300 judges, for purposes of original testing and accuracy, it is now considered reasonable to have about 50 judges.

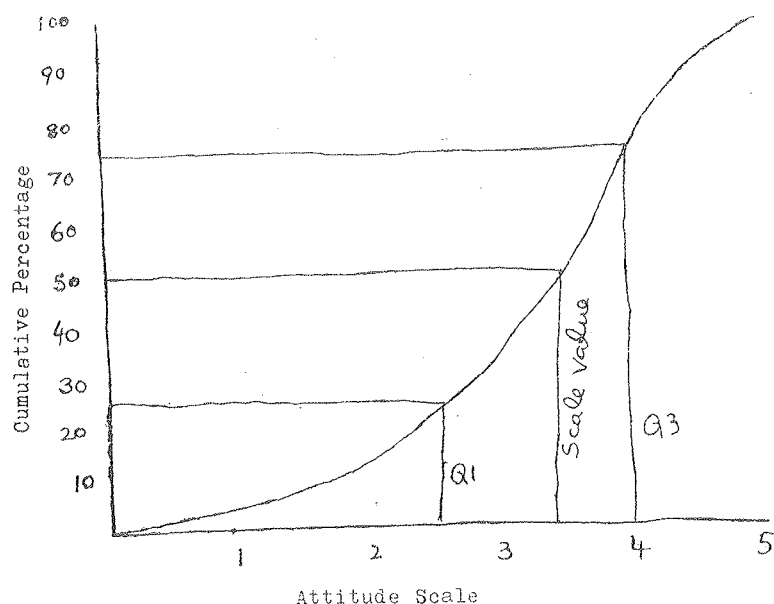
IV. Determination of Scale-Values

For each statement the scale-value has to be computed by the following process : (a) Counting the number of times a statement is allocated to each scale-position, and the preparation of a simple frequency distribution. (b) Conversion of this into a cumulative frequency distribution. (c) Converting this into cumulative percentage distribution.

These are plotted against the 11-point attitude scale. A perpendicular is dropped from the 50th percentile point on the ogive. This is the scale-value or the median of the judgement of all judges.

An example is worked out. 50 Judges have sorted a statement on a 5-point scale.

Statement No.	Scale position	Simple frequency	Cumulative frequency	Cumulative percentage
1.	0 — 1	2	2	4 %
2.	1 — 2	5	7	14 %
3.	2 — 3	10	17	34 %
4.	3 — 4	20	37	74 %
5.	4 — 5	13	50	100 %



$$Q = \frac{Q_3 - Q_1}{2} = \frac{4.0 - 2.5}{2}$$

$$= .75$$

$$\text{Scale Value} = 3.4$$

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