

1. Attitudes

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The concept of attitude is probably the most distinctive and indispensable concept in contemporary American social psychology. No other term appears more frequently in experimental and theoretical literature. Its popularity is not difficult to explain. It has come into favor, first of all, because it is not the property of any one psychological school of thought, and therefore serves admirably the purposes of eclectic writers. Furthermore, it is a concept which escapes the ancient controversy concerning the relative influence of heredity and environment. Since an attitude may combine both instinct and habit in any proportion, it avoids the extreme commitments of both the instinct-theory and environmentalism. The term likewise is elastic enough to apply either to the dispositions of single, isolated individuals or to broad patterns of culture. Psychologists and sociologists therefore find in it a meeting point for discussion and research. This useful, one might almost say peaceful, concept has been so widely adopted that it has virtually established itself as the keystone in the edifice of American social psychology. In fact several writers (cf. Bogardus, 1931; Thomas and Znaniecki, 1918; Folsom, 1931) define social psychology as the scientific study of attitudes.

As might be expected of so abstract and serviceable a term, it has come to signify many things to many writers, with the inevitable result that its meaning is somewhat indefinite and its scientific status called into question. Among the critics (e.g., Bain, 1927-1928; McDougall, 1933; Symonds, 1927), McDougall has been the most severe:

American social psychologists and sociologists have recently produced a voluminous literature concerning what they call "social attitudes"; the term is used to cover a multitude of facts of many kinds including almost every variety of opinion and belief and all the abstract qualities of personality, such as

courage, obstinacy, generosity and humility, as well as the units of affective organization which are here called "sentiments." I cannot see how progress in social psychology can be made without a more discriminating terminology (1933, p. 219).

It is undeniable that the concept of "attitude" has become something of a factotum for both psychologists and sociologists. But, in spite of all the animadversions of critics, the term is now in nearly universal use and plays a central rôle in most of the recent systematic studies in social psychology. It is therefore a concept which students must examine with unusual care.

HISTORY OF THE CONCEPT OF ATTITUDE

Like most abstract terms in the English language, attitude has more than one meaning. Derived from the Latin *aptus*, it has on the one hand the significance of "fitness" or "adaptedness," and like its by-form *aptitude* connotes a subjective or mental state of preparation for action. Through its use in the field of art, however, the term came to have a quite independent meaning; it referred to the outward or visible posture (the bodily position) of a figure in statuary or painting. The first meaning is clearly preserved in modern psychology in what are often referred to as "mental attitudes"; and the second meaning in "motor attitudes." Since mentalistic psychology historically precedes response psychology, it is only natural to find that mental attitudes are given recognition earlier than motor attitudes. One of the earliest psychologists to employ the term was Herbert Spencer. In his *First Principles* (1862) he wrote:

Arriving at correct judgments on disputed questions, much depends on the attitude of mind we preserve while listening to, or taking part, in the controversy: and for the preservation of a right attitude it is needful that we should learn how true, and yet how untrue, are average human beliefs (Vol. 1, pp. 1, i).

Similarly in 1868 Alexander Bain wrote:

The forces of the mind may have got into a set track or attitude, opposing a certain resistance as when some one subject engrosses our attention, so that even during a break in the actual current of the thoughts, other subjects are not entertained (p. 158).

Somewhat later, when psychologists were forsaking their exclusively mentalistic point of view, the concept of motor attitudes became popular. In 1888, for example, N. Lange developed a motor theory wherein the process of a perception was considered to be in large part a consequence of muscular preparation or "set." At about the same time Münsterberg (1889) developed his action theory of attention, and F&G (1890) maintained that a balanced condition of tension in the muscles was a determining condition of selective consciousness. In 1895 Baldwin proposed motor attitudes as the basis for an understanding of emotional expression, and later writers, such as Giddings (1896) and Mead (1924-1925) expanded still further the role of motor attitudes in social understanding.

In recent years it is uncommon to find explicit labeling of an attitude as either "mental" or "motor." Such a practice smacks of bodymind dualism, and is therefore distasteful to contemporary psychologists. In nearly all cases today the term appears without a qualifying adjective, and implicitly retains both its original meanings: a mental aptness and a motor set. Attitude connotes a neuropsychic state of readiness for mental and physical activity.

Attitudes in Experimental Psychology

Perhaps the first explicit recognition of attitudes within the domain of laboratory psychology was in connection with a study of reaction time. In 1888 L. Lange discovered that a subject who was consciously prepared to press a telegraph key immediately upon receiving a signal reacted more quickly than did one whose attention was directed mainly to the incoming stimulus, and whose consciousness was not therefore directed primarily upon the expected reaction. After Lange's work, the task-attitude, or Aufgabe, as it came to be called, was discovered to play a decisive part in nearly all psychological experiments. Not only in the reaction experiment, but in investigations of

perception, recall, judgment, thought, and volition, the central importance of the subjects' preparedness became universally recognized. In Germany, where most of the experimental work was done, there arose a swarm of technical expressions to designate the varieties of mental and motor "sets" which influence the subjects' trains of thought or behavior during the experiment. In addition to the Aufgabe, there was the Absicht (conscious purpose), the Zielvorstellung (or idea of the goal), the Bezugsvorstellung (idea of the relation between the self and the object to which the self is responding), the Richtungsvorstellung (or idea of direction), the bestimmende Tendenz (any disposition which brings in its train the spontaneous appearance of a determined idea), the Einstellung, a more general term (roughly equivalent to "set"), the Haltung (with a more behavioral connotation), and the Bewusstseinslage (the "posture or lay of consciousness"). It was perhaps the lack of a general term equivalent to "attitude" that led the German experimentalists to discover so many types and forms.

Then came the lively controversy over the place of attitudes in consciousness. The Würzburg school was agreed that attitudes were neither sensation, nor imagery, nor affection, nor any combination of these states. Time and again they were studied by the method of introspection, always with meager results. Often an attitude seemed to have no representation in consciousness other than a vague sense of need, or some indefinite and unanalyzable feeling of doubt, assent, conviction, effort, or familiarity. (Cf. Fearing, 1931; Titchener, 1909.)

As a result of the Würzburg work all psychologists came to accept attitudes, but not all believed them to be impalpable and irreducible mental elements. Marbe's conception of the Bewusstseinslage as an "obvious fact of consciousness, whose contents, nevertheless, either do not permit at all of a detailed characterization, or are at any rate difficult to characterize" became a particular bone of contention. In general, the followers of Wundt believed that attitudes could be accounted for adequately as feelings, particularly as some blend of striving and excitement. Clarke (1911), a pupil of Titchener, found that attitudes in large part are represented in consciousness through imagery, sensation, and affection, and that where no such states are reported there is presumably merely a

decay or abbreviation of these same constituents.

However they might disagree upon the nature of attitudes in so far as they appear in consciousness, all investigators, even the most orthodox, came to admit attitudes as an indispensable part of their psychological armamentarium. Titchener is a case in point. His *Outline of Psychology* in 1899 contained no reference to attitude; ten years later, in his *Textbook of Psychology*, several pages are given to the subject, and its systematic importance is fully recognized:

Behind everything lies a cortical set, a nervous bias, perhaps inherited and permanent, perhaps acquired and temporary. This background may not appear in consciousness at all; or it may appear as a vague, conscious attitude (passive imagination), or again as a more or less definite plan, aim, ambition, intention (active imagination). Whether conscious or not, the nervous disposition determines the course of consciousness (1916, Section 119).

The meagerness with which attitudes are represented in consciousness resulted in a tendency to regard them as manifestations of brain activity or of the unconscious mind. The persistence of attitudes which are totally unconscious was demonstrated by Müller and Püzecker (1900), who called the phenomenon "perseveration." The tendency of the subject to slip into some frame of mind peculiar to himself led Koffka (1912) to postulate "latent attitudes." Washburn (1916) characterized attitudes as "static movement systems" within the organs of the body and the brain. Other writers, still more physiologically inclined, subsumed attitudes under neurological rubrics: traces, neurograms, incitograms, brain-patterns, and the like.

Psychoanalytic Influence

The contribution of the Würzburger and of all other experimental psychologists was in effect the demonstration that the concept of attitude is indispensable. The discovery that attitudes are to a large degree unconscious, however, tended to discourage them from a further study of the problem. Once a phenomenon has been driven, as it were, to take refuge in nervous tissue, and identified with cortical sets and brain fields, the psychologist, at least

the introspectionist, is disinclined to pursue it further. The tendency of experimental orthodoxy is to admit the crucial part played by attitudes in all mental operations, but to consign them to the mysterious limbo of "motivation" and there to leave them.

It was the influence of Freud, of course, that resurrected attitudes from this obscurity and endowed them with vitality, identifying them with longing, hatred and love, with passion and prejudice, in short, with the onrushing stream of unconscious life. Without the painstaking labors of the experimentalists attitudes would not today be an established concept in the field of psychology, but also without the influence of psychoanalytic theory they would certainly have remained relatively lifeless, and would not have been of much assistance to social psychology which deals above all else with full-blooded phenomena. For the explanation of prejudice, loyalty, credulity, patriotism, and the passions of the mob, no anemic conception of attitudes will suffice.

Attitudes in Sociology

For a number of years sociologists have sought to supplement their cultural concepts with a psychology which might express in concrete terms the mechanisms through which culture is carried. At first, under the influence of Bagehot, Tarde, and Baldwin, a somewhat vaguely postulated instinct of imitation (or suggestion) was thought adequate. Somewhat later the basis was sought in a more varied native equipment of men. It is interesting to note that of the first two textbooks in social psychology, both published in the year 1908, the one, by Ross, marks the demise of the "simple and sovereign" psychology of imitation-suggestion, and the other, by McDougall, marks the commencement of the still more vigorous social psychology of instincts.

The instinct-hypothesis did not satisfy social scientists for long, for the very nature of their work forced them to recognize the importance of custom and environment in shaping social behavior. The instinct-hypothesis has precisely the contrary emphasis. What they required was a new psychological concept which would escape on the one hand from the hollow impersonality of "custom" and "social force," and on the other from nativism. Being committed to some psychological doctrine and dissatisfied with instincts they gradually adopted the

concept of attitude.

The case of Dewey may be taken as fairly typical. In 1917 he professed to see in the doctrine of instincts an adequate basis for asocial psychology. Five years later (1922) he no longer found instincts suitable and sought to replace them with a concept that would

. . . express that kind of human activity which is influenced by prior activity and in that sense acquired; which contains within itself a certain ordering or systematization of minor elements of action; which is projective, dynamic in quality, ready for overt manifestation; and which is operative in some subdued subordinate form even when not obviously dominating activity (p. 41).

To express this complex type of mental organization he chose "habit," but admitted as its equivalent either "disposition" or "attitude."

The credit for instituting the concept of attitude as a permanent and central feature in sociological writing must be assigned to Thomas and Znaniecki (1918), who gave it systematic priority in their monumental study of Polish peasants. Before this time the term had made only sporadic appearances in sociological literature, but immediately afterward it was adopted with enthusiasm by scores of writers.

According to Thomas and Znaniecki the study of attitudes is par excellence the field of social psychology. Attitudes are individual mental processes which determine both the actual and potential responses of each person in the social world. Since an attitude is always directed toward some object it may be defined as a "state of mind of the individual toward a value." Values are usually social in nature, that is to say they are objects of common regard on the part of socialized men. Love of money, desire for fame, hatred of foreigners, respect for a scientific doctrine, are typical attitudes. It follows that money, fame, foreigners, and a scientific theory are values. A social value is defined as "any datum having an empirical content accessible to the members of some social group and a meaning with regard to which it is or may be an object of activity (p. 21). There are, to be sure, numerous attitudes corresponding to every social value; there are, for example, many views or attitudes regarding the church or the state. There are also

numerous possible values for any single attitude. The iconoclast may direct his attacks quite at random upon all the established social values, or the Philistine may accept them all uncritically. To a large extent, of course, new social values are created by the attitudes which are common to many men, but these attitudes themselves depend upon preexisting social values. Hence in the social world, as studied by the sociologist, both values and attitudes must have a place. Primarily it falls to the ethnologist and philosopher to examine values; but it is social psychology which is "precisely the science of attitudes."

The authors draw a distinction between attitudes of temperament and of character; the former include what psychologists have been accustomed to speak of as instincts and innate aptitudes; the latter are the acquired operations of the socialized mind—the plans, interests, and sympathies which characterize the average citizen. The authors admit likewise a distinction between natural attitudes (toward the physical environment), which are of slight interest to social psychology, and the social attitudes proper which are far more numerous and which constitute the distinctive subject-matter of the new science.

Following closely in the same vein of thought, Faris (1925) proposed additional refinements. He would distinguish between conscious and unconscious attitudes, between mental and motor attitudes, between individual and group attitudes, and between latent and kinetic attitudes. Park (see Young, 1931), who is likewise in essential agreement with this school of thought, suggests four criteria for an attitude:

1. It must have definite orientation in the world of objects (or values), and in this respect differ from simple and conditioned reflexes.
2. It must not be an altogether automatic and routine type of conduct, but must display some tension even when latent.
3. It varies in intensity, sometimes being predominant, sometimes relatively ineffective.
4. It is rooted in experience, and therefore is not simply a social instinct.

Bernard (1930) has recently prepared a synthesis of

the conceptions found in current sociological writing:

Social attitudes are individual attitudes directed toward social objects. Collective attitudes are individual attitudes so strongly interconditioned by collective contact that they become highly standardized and uniform within the group The attitude is originally a trial response, i.e., interrupted, preparatory or substitute behavior arising within an incompleting adjustment response, but it may become the permanent set of the organism. It ranges from concrete muscular response to that which is abstract, inner or neural Attitudes form the basis of all language and communication. In them is implicit all finished social behavior and through them practically all social adjustment is consummated Public opinion is the highest form of collective attitudes.

Conclusion

This brief review of the history of the concept of attitude has established three important facts:

1. After the breakdown of intellectualistic psychology the phenomena of "determination" came slowly but certainly to be admitted to unquestioned standing in experimental psychology. Attitudes came into fashion.

2. Under the influence of psychoanalytic theory the dynamic and unconscious character of attitudes became more fully recognized.

3. In sociological writing there was a gradual turning of interest to attitudes considered as the concrete representations of culture.

The effect of these three convergent trends within the past fifteen years has been the creation of a vigorous doctrine of attitudes, which today is bearing most of the descriptive and explanatory burdens of social psychology. Whether the concept is being overworked to such an extent that it will be discarded along with the past shibboleths of social science remains to be seen. It seems more probable that the ever increasing number of critical and analytical studies will somehow succeed in refining and preserving it.

ATTITUDES AS A FORM OF READINESS

Let us now consider a representative selection of definitions and characterizations of attitude.

[An attitude is] readiness for attention or action of a definite sort (Baldwin, 1901-1905).

Attitudes are literally mental postures, guides for conduct to which each new experience is referred before a response is made (Morgan, 1934, p. 47).

Attitude - the specific mental disposition toward an incoming (or arising) experience, whereby that experience is modified, or, a condition of readiness for a certain type of activity (Dictionary of Psychology, Warren, 1934).

An attitude is a complex of feelings, desires, fears, convictions, prejudices or other tendencies that have given a set or readiness to act to a person because of varied experiences (Chave, 1928) .

. . . a more or less permanently enduring state of readiness of mental organization which predisposes an individual to react in a characteristic way to any object or situation with which it is related (Cantril, 1934).

From the point of view of Gestalt psychology a change of attitude involves a definite physiological stress exerted upon a sensory field by processes originating in other parts of the nervous system (Köhler, 1929, p. 184).

An attitude is a tendency to act toward or against something in the environment which becomes thereby a positive or negative value (Bogardus, 1931, p. 62).

By attitude we understand a process of individual consciousness which determines real or possible activity of the individual counterpart of the social value; activity, in whatever form, is the bond between them (Thomas and Znaniecki, 1918, p. 27).

The attitude, or preparation in advance of the actual response, constitutes an important determinant of the ensuing social behavior. Such neural settings, with their accompanying consciousness, are numerous and significant in social life (F. H. Allport, 1924, p. 320).

An attitude is a mental disposition of the human individual to act for or against a definite object (Droba, 1933).

[An attitude] denotes the general set of the organism as a whole toward an object or situation which calls for adjustment (Lundberg, 1929).

[Attitudes] are modes of emotional regard for objects, and motor "sets" or slight, tentative reactions toward them (Ewer, 1929, p. 136).

An attitude, roughly, is a residuum of experience, by which further activity is conditioned and controlled We may think of attitudes as acquired tendencies to act in specific ways toward objects (Krueger and Reckless, 1931, p. 238).

When a certain type of experience is constantly repeated, a change of set is brought about which affects many central neurons and tends to spread over other parts of the central nervous system. These changes in the general set of the central nervous system temper the process of reception In terms of the subjective mental life these general sets are called attitudes (Warren, 1922, pp. 360 f.).

An attitude is a disposition to act which is built up by the integration of numerous specific responses of a similar type, but which exists as a general neural "set," and when activated by a specific stimulus results in behavior that is more obviously a function of the disposition than of the activating stimulus. The important thing to note about this definition is that it considers attitudes as broad, generic (not simple and specific) determinants of behavior (G. W. Allport, 1929).

We shall regard attitudes here as verbalized or verbalizable tendencies, dispositions,

adjustments toward certain acts. They relate not to the past nor even primarily to the present, but as a rule, to the future. Sometimes, of course, it is a hypothetical future The "attitude" is primarily a way of being "set" toward or against things (Murphy and Murphy, 1931, p. 615).

It is not difficult to trace the common thread running through these diverse definitions. In one way or another each regards the essential feature of attitude as a preparation or readiness for response. The attitude is incipient and preparatory rather than overt and consummatory. It is not behavior, but the precondition of behavior. It may exist in all degrees of readiness from the most latent, dormant traces of forgotten habits to the tension or motion which is actively determining a course of conduct that is under way.

A Definition of Attitudes

It is not easy to construct a definition sufficiently broad to cover the many kinds of attitudinal determination which psychologists today recognize, and at the same time narrow enough to exclude those types of determination which are not ordinarily referred to as attitudes. The definitions considered above contain helpful suggestions, and yet none alone is entirely satisfactory. The chief weakness of most of them seems to be their failure to distinguish between attitudes, which are often very general, and habits, which are always limited in their scope.

Any attempt at a definition exaggerates the degree of agreement which psychologists have reached, but is justified if it contributes toward securing greater agreement in the future. The following definition has the merit of including recognized types of attitudes: the Aufgabe, the quasi-need, the Bewusstseinslage, interest and subjective value, prejudice, stereotype, and even the broadest conception of all, the philosophy of life. It excludes those types of readiness which are expressly innate, which are bound rigidly and invariably to the stimulus, which lack flexibility, and which lack directionality and reference to some external or conceptual object. *An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all*

objects and situations with which it is related.

POSITIVE AND NEGATIVE ATTITUDES

An attitude characteristically provokes behavior that is acquisitive or avertive, favorable or unfavorable, affirmative or negative toward the object or class of objects with which it is related. This double polarity in the direction of attitudes is often regarded as their most distinctive feature. It has a central place in Bogardus' definition (1931, p. 52): "An attitude is a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value." Likewise, Thurstone defines an attitude as "the affect for or against a psychological object" (1932).

This point of view is a modern version of an ancient dialectic. For centuries the opposed categories of "attraction" and "repulsion" have in one form or another played a decisive part in psychological theory. Empedocles assumed as the explanation of all activity the two contrasting immaterial principles of Love and Hate. The same opposed forces are prominent in the psychological theories of Mantegazza, Brentano, and Lindworsky. On a physiological plane one again encounters the dialectic of attraction and repulsion in the opposition of the flexors and extensors (Sherrington), in facilitation and inhibition (Münsterberg), in resistance and conductance (Troland), in outreaching and withdrawing behavior (Watson), in alliance and combat (Tarde), in acquisitive and avertive tendencies (Kempf), in adient and abient responses (Holt), and in pleasure and pain. One recent textbook of social psychology bears the subtitle, *The Psychology of Attraction and Repulsion* (Smith, 1950), and the same pair of concepts underlie the sociological system of Roguin (1931, 1952). It is no wonder that many writers find it possible to classify all attitudes as either positive or negative. It is undoubtedly true that the majority fit easily into these categories.

And yet some attitudes are not readily classified. What shall one do, for example, with a detached, impersonal, or judicial attitude, or with an attitude of neutrality? Complacency, amusement, tolerance, and openmindedness are not easily reduced to "affect for or against" an object. Two bridge-players may have the same "degree of affect" toward the game, and yet differ qualitatively in their attitudes toward it. Two radicals may be equally in favor of change, but

disagree in the modus operandi of reform. Two people equally well disposed toward the church may differ in their sacramental, liturgical, esthetic, social, Protestant, or Catholic interpretation of the church. Is the degree of positive or negative affect aroused by the concept of "God" as significant as the qualitative distinctions involved in theistic, deistic, pantheistic, agnostic, intellectualistic, or emotional attitudes? When one speaks of attitudes toward sex, it is obviously only the qualitative distinctions that have any intelligible meaning. What is a "serene and benevolent mind"? Certainly not one devoid of attitudes, nor yet one that is a battle-ground of tendencies "for" and tendencies "against." All of these objections to the unidimensional view argue strongly for the recognition of the qualitative nature of attitudes.

There is, however, one way of meeting these objections, namely, by reducing attitudes to small enough components. If they are divided up into artificialized units, the unidimensional conception is saved. The two radicals, for example, who are equally "against" the present social system, but who differ in their policies, may conceivably be compared in respect to the attraction or repulsion they show for each of the disputed policies. The bridge-enthusiasts who differ in their attitudes toward the game can be compared quantitatively in their attitudes for or against conversation during the play. Church-goers may be found to vary quantitatively in the degree to which they favor every specific practice: baptism by immersion, intincture, genuflection, or the use of vestments. And even the man who has a neutral attitude may be found to have a positive and measurable attachment to the ideal of neutrality. If such rigid analyses are pursued, all of the complex, qualitative attitudes can be broken down and measured in fragments. The price one must pay for bi-polarity and quantification in such cases is, of course, extreme, and often absurd, elementarism.

THE MEASUREMENT OF ATTITUDES

The interest of American social psychologists in fact-collecting and statistical methods has resulted in a rapid advance in the empirical study of attitudes, with the result that attitudes today are measured more successfully than they are defined. As has often been pointed out, the situation is not unlike that in the field of intelligence testing where practicable tests are an

established fact, although the nature of intelligence is still in dispute. In recent years there has been a decline of interest in the measurement of intelligence (Goodenough, 1934) and an increase of interest in the measurement of attitudes. It seems as though militant testing, having won victories on one field of battle, has sought a new world to conquer. The numerous methods available for measuring attitudes have been often reviewed and do not require restatement here. The present abbreviated account, which confines itself to three methods, may be supplemented by the more complete summaries of Bain (1930), Droba (1982, 1934a), Katz and Allport (1931), Fryer (1931), Murphy and Murphy (1931), Stagner (see Black, 1933, pp. 115127), Sherman (1932), and Symonds (1931).

The Census of Opinions

The simplest method for determining how common an attitude (really an opinion) may be in a certain population is by counting ballots or by tabulating answers to a questionnaire. Roughly, this method may be said to "measure" the range and distribution of public opinion, although it does not, of course, determine the intensity of the opinion of any given individual upon the issue in question. The application of this method may be illustrated by reference to a recent poll, widely reported in the newspapers, concerning pacifistic and militaristic attitudes among 22,627 students in seventy colleges. Thirty-nine per cent of these students declared that they would participate in no war whatsoever, 33 per cent would take part only if the United States were invaded, and 28 per cent were ready to fight for any cause that might lead the nation to declare war. A critic might remark that such a result expresses only "verbal" opinion, or at the most merely temporary attitudes, which would change under the pressure of propaganda. Whatever may be the force of this objection, it applies equally to all of the methods now existing for determining the strength and nature of personal attitudes.

A far more elaborate census of students' attitudes was made by Katz and Allport (1981). In this study 4248 students in Syracuse University responded to a questionnaire containing many hundreds of items. The students did not write their opinions, but under each topic checked one of several alternative opinions with which they felt themselves to be most closely in

agreement. Obviously this method does not provide a true scale of measurement, since the alternative items are not scaled in respect to their intensity. The results obtained, however, can be turned readily into a study of the percentages of students who favor each of the opinions contained in the questionnaire.

The a priori Scale

The so-called *a priori* scale is essentially a test devised on the basis of logical rather than empirical considerations. It is an economical method, widely used, and easy to apply, but in recent years it has been severely criticized. There are various forms of the a priori scale, but they are all alike in that their scoring is arbitrary. Sometimes the author presents a series of questions, each of which may have, say, five alternative answers from which the subject must select one. These alternative answers are conceived by the author to lie on a single continuum and to be equally spaced from the most favorable to the least favorable. To each item the author arbitrarily assigns a value of 1, 2, 8, 4, or 5, according to his opinion of its significance. Another variation allows the subject to place in rank order all of the alternatives according to his preference; these rank orders are then treated as though they were equal intervals in the scale. The statistical pitfalls of a priori scales have been pointed out by Thurstone (1927-1928).

As an example of a widely used scale of this type may be mentioned the test for "social distance" devised by Bogardus (1925a, 1925b, 1927). In this test the subject is asked the degree of intimacy he would willingly sanction between himself and members of various races. The degrees of intimacy listed in one form of the test together with their "scale values" are as follows:

- 1 – to close kinship by marriage
- 2 – to my club as personal chums
- 3 – to my street as neighbors
- 4 – to employment in my occupation in my country
- 5 – to citizenship in my country
- 6 – as visitors only to my country
- 7 – would exclude from my country

The weakness of the scale becomes at once apparent when it is realized that the distance between each of these degrees of intimacy is not necessarily

comparable. The psychological difference between relationship in marriage and in a club is likely to be far greater than that existing between club relations and neighborly relations. It becomes therefore misleading to assign equally progressing arithmetical units to unequal attitudinal differences. Another difficulty arises in the assumption that each higher degree of intimacy necessarily implies all those that are lower; but there are cases where admission to neighborly relations, for example, is less distasteful than admission to one's occupation.

The Psychophysical (Rational) Scale

The most significant event in the history of the measurement of attitudes was the application of psychophysical methods by Thurstone. To apply psychophysical methods it is necessary first to conceive of an attitude as a "degree of affect" for or against an object or a value with which the scale is concerned. If this assumption is granted, it becomes possible to study the degree of favor or disfavor which each subject in a population has toward certain objects or values, such as the church, war, moving pictures, or government ownership. Within the past few years a large number of such scales have been devised and made available for general use (Thurstone and associates, 1929).

The scoring values for all of these scales are determined by combining the efforts of many judges who have arranged all the statements included in each scale according to their discriminable differences. If judges, by and large, agree that two statements express about the same degree of favor or disfavor it is obviously unnecessary to keep both statements in the scale; if the statements are widely different it is possible by comparing the judges' sorting

of each statement in relation to all other statements to determine its position. The final, rational scale results when forty or fifty statements are secured whose distance from one another on a single continuum are known. This distance is essentially the discriminable difference between the statements as they appear to the standardizing group of judges. There are various methods by which the discriminable differences may be determined. The commonest is the "method of equal-appearing intervals." The directions for its use involve the following steps:

1. Specify the attitude variable to be measured.
2. Collect a wide variety of opinions relating to it, from newspapers, books, or from individuals.
3. Assemble on cards approximately one hundred such typical opinions.
4. Require at least 200-300 judges to sort these cards into piles (eleven being a convenient and commonly employed number), each pile representing equidistant degrees of the attitude according to each judge's estimation.
5. Calculate the scale value for each of the items by computing the median of the scale values assigned to it by the judges, and the dispersion of the judgments around the median.
6. Retain such statements as have small dispersions, and are on the whole equally spaced. Give approximately equal representation to each of the intervals secured. Clarity and brevity of wording may furnish additional bases for selection.
7. In applying the scale, the subject checks every statement with which he agrees, and his score is the mean scale-value for all the statements he has endorsed.

The most useful procedure in constructing such scales is to follow the models offered in the Thurstone-Chave (1929) or Peterson-Thurstone (1933) scale. Directions for uniform wording have been suggested by Droba (1932), Wang (1932), Kulp (1933), and Stagner (see Black, 1933, pp. 115-127). Further details concerning the construction and use of psychophysical scales may easily be traced through the literature (Black, 1933; Dockeray, 1932; Thurstone, 1927-1928, 1929, 1932; Remmers, 1934).

As revolutionary as the rational scale undoubtedly is, certain criticisms must be made against the method as it is at present employed:

1. As has already been indicated above, attitudes are not necessarily arranged naturally upon a single continuum; they are often discrete and highly individual (cf. Katz and Allport, 1951).

2. There is also the question whether scale values for statements derived from one population of judges is applicable to other populations of subjects (Rice, 1930). For example, can the judgments of adults concerning the significance of a statement dealing with moving pictures be incorporated in a test that is to be administered to children?

3. Likert (1932-1933) has shown that the simple a priori method of scoring in arbitrary units (1 to 5) when applied to these rational scales may yield results as reliable as do the psychophysical scores themselves. The agreement between the two methods is approximately .90. This fact may give comfort to investigators who wish to avoid the more complex procedures.

Thurstone's strictures upon the logic of a priori scales are undoubtedly sound, but they do not necessarily invalidate these scales when only practical results are desired. Suppose, for instance, that a psychologically minded chairman wishes to determine at a certain meeting the temper of his audience in reference to some issue under discussion. He can quickly prepare and quickly (if roughly) score an a priori scale; whereas the preparation of a more carefully standardized test would be impracticable and unnecessarily fine-grained for his purposes.

Conclusions

The success achieved in the past ten years in the field of the measurement of attitudes may be regarded as one of the major accomplishments of social psychology in America. The rate of progress is so great that further achievements in the near future are inevitable. But there are inherent limitations in all

methods of testing. Unless these are kept in mind the zeal for measurement may overstep reasonable bounds.

1. Measurement can deal only with attitudes that are common, and there are relatively few attitudes that are common enough to be profitably scaled. In forcing attitudes into a scale form violence is necessarily done to the unique structure of man's mind. Attitude scales should be regarded only as the roughest approximations of the way in which attitudes actually exist in the mental life of individuals.

2. Each person possesses many contradictory attitudes, and for this reason his mental set at the moment of submitting to a scale may tell only a part of the story. Furthermore, attitudes often change, and an investigation made under one set of conditions may not for long present a true picture of the attitudes of any given group. Stagner (see Black, 1933) reports a meeting of farmers in a village in northern Wisconsin who, under the influence of a persuasive speaker, voted unanimously one afternoon to call a milk strike. The same group met in the evening to hear a speaker with opposed views. They then voted unanimously not to strike.

3. Rationalization and deception inevitably occur, especially when the attitudes studied pertain to the moral life or social status of the subject. The difficulty of obtaining reliable information concerning attitudes toward sex is a case in point. So great is the tendency to protect oneself that even anonymity is not a guarantee. Lack of insight, ignorance, suspicion, fear, a neurotic sense of guilt, undue enthusiasm, or even a knowledge of the investigator's purpose may invalidate an inquiry.

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