

MEASUREMENT OF SECURITY INDEX

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PREFACE

Though any apology may not be necessary for presenting the report that is embodied in this paper an explanation may not be out of place. The population of Bangalore has more than doubled itself since 1940, pointing out to the obvious fact that a large number of persons have come from outside Bangalore. Majority of these persons are from rural areas and they seem to have forsaken their traditional occupation of agriculture in preference to the employment in industrial concerns in and around Bangalore. In the course of certain investigation connected with the Hindustan Aircrafts Ltd., Bangalore, it was noticed that these persons coming from outside had not yet been integrated sufficiently into the industrial organisation already existing in the Hindustan Aircrafts Ltd. On closer investigation it was found that these rural persons, uprooted from their original homes, when they returned to their villages off and on to make short stays found that the treatment meted out to them by the village folk made it clear that the original bond of integration which had existed between themselves and the village had become weak. These persons thus suffered a certain amount of disturbance in regard to the sense of security that was originally prevailing in their minds.

This fact gave rise to the considerations of the possibility of measuring the sense of security and thereby evolving a security index in the minds of people. What applies to individuals applies to groups and nations in a more or less degree. Therefore it occurred that it should be possible to split up a people into smaller zonal universes. The sense of security enjoyed by such smaller universes could be assessed by taking stratified samples in each of such zones and measuring the security index.

The following report is of an investigation undertaken in the Indian Institute of Science, Bangalore, in regard to the measurement of security index. This investigation has yielded very interesting results indicating the compositional nature of the sense of security and the relative importance of the factors that go to build up this sense of security.

Mr. S. K. Ramachandra Rao and Mr. M. C. Satyanarayana have both been associated with this investigation almost from the beginning.

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I. INTRODUCTION

Theoretical Groundwork

Tension.—Man in society is equipped with two types of transmission—biophysical and sociocultural. The elementary propensities such as reflexes, instincts and capacities are of course quasi-hereditary and individual, to start with, but the self or personality that gradually develops and plays the decisive role in his life is as much, if not more, a product of socio-cultural environment as of the biophysical. The essential problem of an individual's individuality, or self-consciousness or self-hood, is "How can an individual get outside himself in such a way as to become an object to himself?"¹ Towards this end are developed attitudes,² both toward himself³ and towards the "object" to him. This results in socialisation, *i.e.*, in the emergence of a configuration of the self and society. The resultant behaviour pattern is dependent, therefore, on the degree and type of socialization. For a smooth and effective operation of a personality in all its settings, there should be an integration of attitudes. It is in this sense that Prescott Lecky⁴ has introduced the factor of self-consistency in his theory of personality. Attitude itself on analysis is found to be an enduring pattern of values, and

¹ Mead, "Mind, Self and Society", Chicago, 1934. Q. Davis, *Human Society*, p. 209.

² "An Attitude is a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related", Allport, G., *Handbook of Social Psychology* (ed. C. Murchison), p. 810.

³ Davis calls this the attitude of the 'generalised other'.

⁴ Davis, *op. cit.*, p. 235.

values are the product of one's interaction with the outer and inner environments. The individuality of an individual is maintained when these values and the resultant attitudes are organised into a pattern around the nucleus of selfhood or one's evaluation of himself or McDougall's 'self-regarding sentiment'. The organisation being dynamic, the psychological equilibrium of the organism is constantly upset and the individual is as constantly engaged in restoring it against all odds. This is the *raison d'être* of the impulse of self-preservation. It is not just a biological necessity but productive of desirable emotivity as well. For when the self-hood is not maintained the behavioral patterns will not be potent enough to satisfactorily terminate in the expected goal, and consequently conflict will result. The perception of the goal or the formation of the purpose is coeval with the arousal of a tension system and all behaviour is a reply to the tension-state. "Whenever an organised whole is upset, there is a tendency to restructure the organisation in such a way that the equilibrium may be re-established".⁵

Pleasure, being defined as a "state of affairs in which a conflict is being reduced, an incipient organisation being dissipated or a new synthesis in assembly action being achieved",⁶ the non-maintenance of self-hood results in the opposite effect, *viz.*, pain. While integration pleases, conflict *pains*. The urge in the individual to achieve the expected pattern of behaviour (in accordance with the normative control of society) is thus frustrated, the behaviour is no longer goal-oriented. A chasm yawns between the action-pattern of the individual which is too inadequate or misfired, and the goal. In such instances, we have evidence of what N. R. F. Maier calls "frustration-instigated behaviour".⁷ This is symptomatic of an enduring state of tension in the organism.

But it must be recognised that behaviour is impossible without tension; in fact, it is the tension that is the source of energy for the vector responsible for behaviour.⁸ The normal locomotions (the release of a tension state by an appropriate behaviour), however, occur more or less on the same plane of reality⁹ as the goal. But when impermeable barriers are set in the plane of that degree of reality making locomotion impossible between goal and vector, the organism is obliged to "fly from reality" to irreality. The tension here is blocked. When the situation is of secondary importance

⁵ Brown, *Psychology and the Social Order*, p. 76.

⁶ Hebb, D. O., *Organization of Behaviour*, p. 232.

⁷ *Frustration*, p. 77.

⁸ *cf.* Brown, *op. cit.*, p. 282.

⁹ *cf.* Lewin, *Principles of Topological Psychology*, p. 196 f.

from the standpoint of the organism, displacements of the planes of reality occur, substituting a lesser reality for a higher one, thereby overcoming the barrier in the original plane. Such blockings are plentiful in human life. But this substitute flight into lesser realities is very difficult where the tension involves the essence of the organism, and this mode of reaction to barriers, even when they occur, fail to give the satisfaction that the tension demands:¹⁰ or, in other words, their compensatory value is negligible. That is to say, the tension continues unabated, giving rise to a series of anxiety and frustration-states. The symptom of such a state is the *feeling of insecurity* which is a function of the inner tension.

Social Frame.—Society is a structured field wherein it is possible to discern a number of regions (or points) with self as the point of reference. This configuration of self-society can therefore be theoretically analysed into several subregions such as personal, social, physical, economic, political, ethical and religious, each as much a homogeneous entity with reference to the society, as society is with reference to the individual. Each of them might be construed as a reference region, and locomotions (communications) could be discerned between the self and the reference regions. These locomotions are an answer to the call of certain tension states, a response towards restoring the lost equilibrium of the individual. They are dependent on the structure of the society, the situational context and the organism's equipment and modes of reaction. In this connection we must not concentrate on these apparently independent factors in the behaviour instead of understanding it as a unified total response. The individual reacts as a psychophysical mechanism to the world around him (in so far as he is stimulated by it) in various situations, not as so many distinct personalities, but as an organized unity. The behavioral patterns may change in relation to the social situations that engender them, but the individual retains constancy and integrity within the social framework. Behaviour, in other words, is a function of the nucleus of the organism.¹¹

This organismic nucleus, *i.e.*, the individual in the social frame, enters as an indispensable factor in all behaviour, and in view of the goal-directedness of the behaviour a 'tone' of satisfaction or dissatisfaction consequent on the restoration of the equilibrium or otherwise is instituted. In other words, the behaving agent is also a satisfaction-experiencing agent. The general feeling tone of the nucleus involves a reflection thereof in the elemental units also. The feeling of security or insecurity is such an organismic

¹⁰ *cf.* Brown, "Resolution of a blocked tension in the realm of a lesser reality is only possible when this leads to another way of reaching the original goal" (*op. cit.*, p. 293).

¹¹ As described in the Lewinian formula, $B = f(PE)$.

nuclear tone. The ease and smoothness with which the locomotions occur gives us an index of this feeling tone, suggesting also the extent of harmony that prevails in the individual. The presence of barriers¹² is an evidence of unrelieved tension and thus of a feeling of dissatisfaction and insecurity.

Sense of Security as an Attitude.—The satisfactory character of a behaviour is marked by the release of tension that has arisen on the continued existence of a need. The needs that compel the attention of the organism and demand prompt action, and about the satisfactoriness of which the organism is very particular could be termed as fundamental appetites, such as hunger, sex, etc. The satisfaction in these creates a stable and strong Gestalt that is not likely to be disturbed by other appetites, which are, by implication, minor. The 'tone' thus acquired after experience and retrofection¹³ is denoted as the sense of security. This is recognised as an attitude, in the sense in which Thomas and Znaniecki have taken it, viz., "every manifestation of conscious life, however simple or complex, general or particular, can be treated as an attitude".¹⁴ This attitude as belonging to the 'organismic nucleus' (*P*) is a general one, a whole. The senses of security in the different spheres of fundamental needs or appetites are generated and conditioned by this whole, and therefore might be described as holoids; the items that constitute each sphere might be looked upon as elements. The field being structured, the primal 'urge to live' becomes differentiated into these diverse security attitudes.

II. THE PROBLEM

The purpose of the present inquiry is to (1) ascertain the nature of the sense of security, (2) the factors that contribute to it; (3) to measure it, if it is amenable to measurement; (4) to determine the inter-relationship that inneres between the different factors and (5) to discover their relative importance. The investigation does not seek to prove or disprove any hypothesis priorly formulated. The present report concerns itself only with the pilot work that was done in this regard.

III. THE METHOD

A. *The Questionnaire.*—A questionnaire was designed to gather relevant data regarding the sense of security of the individual (see Annexure D). The sphere of investigation was grouped into eight segments each representing

¹² "What constitutes barriers depends on the structure of the social field, for instance, the stability of the economic system, the form of the state, the vigor of contemporary religion", Brown, *op. cit.*, p. 300.

¹³ cf. Pearls, *Ego, Hunger and Aggression*, pp. 119-20.

¹⁴ Sheriff and Cantril, *Psychology of Ego Involvements*, p. 11.

a physico-psycho-social appetite of major importance, and this was arranged in a series ranging from the mostly biological to the mostly psychological. They are: Physical, Personal (Familial), Economic, Social, Ethical, Political (or Civic), Religious and Cultural. Each segment represents a pattern of human adjustment, and the field covered is fairly wide. They almost exhaust the major modes of human behaviour. The total number of items included is 100. The subject is asked to answer each item dichotomously, by either *YES* or *NO*, and the questions are so framed as to admit of this response fairly adequately. (See Annexure II for details regarding the method of scoring.)

B. *The Scale*.—The security index scale has been devised to illustrate the differentiation in opposite directions, positive and negative: on the positive side the sense of security progressively increases whereas on the negative side it progressively decreases. The existence and the perceptibility of the factor of security having been assumed, as also its measurability, this technique was employed to make the scores comparable. Each item on the scale admits of one score and thus the entire questionnaire is valued at 100. Taking 50-60 as zero-point or the point of departure, three divisions on either side were effected. The scale is:—

Above 80	..	Perfectly secure
70-80	..	Fairly secure
60-70	..	Sufficiently secure
50-60	..	Moderately secure
40-50	..	Insecurity causing anxiety
30-40	..	Abnormally insecure
Below 30	..	Absolutely insecure

Needless to say this was an *a priori* construction and has no stamp of finality. The subjects were not, however, asked to fit their answers into this scale; it was meant for the guidance of the investigators. It affords a gross judgment on the level of security an individual possesses.

C. *Intensity*.—Direction of the opinion having been provided for by the dichotomous alternatives *Yes* and *No*, and its extent having been made measurable by the scale, it was thought desirable to introduce an opinion thermometer to measure the depth of opinion or the intensity of belief. This was to ascertain the amount of certainty with which the subject answers the questionnaire. Taking 'C' (Don't know or Can't say) as the zero point, two divisions on either side were effected, on the positive side progressively certain, and on the negative progressively uncertain. The scale included was;

- A I am very certain about my answer.
- B I am certain.
- C Don't know; Can't judge.
- D I am uncertain.
- E I am not at all certain.

The subject was presented with the question. "How definite is your opinion?" Answering thus to each item would be cumbersome and monotonous; answering to the entire questionnaire as a whole would be inadequate. Thus a *via media* was struck by asking the subjects to answer for each group of questions, *i.e.*, each sphere in which the sense of security was being measured.

In the statistical treatment of the data, the scale and the intensity thermometer have been viewed as altogether independent of each other; psychologically, they could be interpreted as mutually complementary.

The sense of security has been assumed to be a measurable quantity and to be present in different individuals in different amounts. The subjects that are approached for information on the questionnaire each give a variable value which when statistically treated will give us an insight into the group trends.

IV. THE SUBJECTS

Sample I.—A sample of eighty persons selected in a random manner was requested to send in their written replies to the questionnaire. In most of the cases they were personally interviewed and their replies were collected. The sample under study represents the middle-class unmarried males in the age group of 20 to 26 years. The subjects were all educated, and followed many diverse professions—students, research workers, school masters, clerks, university teachers, typists, engineers, businessmen, etc.; they were in the income group of Rs. 50 to Rs. 200 per month.

Sample II.—A sample of fifty scientific workers in the I Year Diploma courses of the Indian Institute of Science, Bangalore, was administered this questionnaire (with the intensity factor included) and their replies were collected. This sample also mostly belonged to the middle class, all very highly educated and the age ranging between 18 and 28 years. They were all engaged in scientific research in the applied scientific branches such as chemical engineering, metallurgy, electrical technology, etc. They were mostly unmarried and all were males.

V. STATISTICAL ANALYSIS

As regards the total security index, tests for departure from normality were applied and it was found that this index was in both the samples distri-

buted according to the normal law with a mean of 67.82 and a standard deviation of 8.8225 in the former group and with a mean of 63.68 and a standard deviation of 11.312 in the latter.

The means and standard deviations of all the factors as well as the security index have been computed for both the samples and are given in Tables I and II respectively; the various coefficients of correlation of zero order between the several factors and the total security index taken in pairs have also been included in the same tables. (See Annexure III.)

The linear relationship between the factors and the total security index yields the multiple coefficients of correlation R (1 2 3 4 5 6 7 8 9) have been found to be 0.91577 in the former group and 0.9700 in the latter; both are seen to be highly significant values, showing thereby that X_1 is linearly correlated with the other variables X_2, \dots, X_9 , where

X_1 stands for the	Total security
X_2 ,,	Physical security
X_3 ,,	Personal security
X_4 ,,	Economic security
X_5 ,,	Social security
X_6 ,,	Ethical security
X_7 ,,	Civic security
X_8 ,,	Religious security
X_9 ,,	Cultural security.

The various coefficients of regression $b_{1 2 3 4 \dots 8 9}$ also have been worked out and the regression of X_1 (Total Index) and the other eight variables have been given below.

$$\text{Group 1. } X_1 = -0.0926 - .5822 X_2, -.5996 X_3, .9703 X_4, 2.002 X_5, \\ 1.2000 X_6, 0.9790 X_7, .5488 X_8, 1.779 X_9.$$

The standard error of estimate is

$$1.23 \dots 9 = 0, \sqrt{1 - R^2} = 1.234 \dots 9 = 3.5438.$$

$$\text{Group 2. } X_1 = 2.7648, .8985 X_2, 1.2264 X_3, 0.8792 X_4, 0.8311 X_5, \\ 0.7340 X_6, 0.4207 X_7, 1.3798 X_8, 0.9985 X_9.$$

The standard error of estimate is

$$1.23 \dots 9 = 0, \sqrt{1 - R^2} = 1.234 \dots 9 = 2.748816.$$

In the former group, the index of forecasting efficiency $E = 100(1 - \sqrt{1 - R^2})$ is 58.832 or 60 per cent. Coefficient of determination is 0.8387 (R). All the factors taken together account for nearly 84 per cent. of the variance in X_1 .

Further it is found from the regression coefficients that the dominant factors that influence the total security index are *social*, *economic* and *personal* factors contributing respectively 29 per cent., 15 per cent., and 11 per cent. to the variance in X_1 (the total security index). The remaining factors can be ranked as follows in the order of their importance: *ethical* (11 per cent.), *civic* (9 per cent.), *cultural* (6 per cent.), *religious* (3 per cent.) and *physical* (3 per cent.). It is also interesting to note that the regression coefficient $b_{12} \dots b_{18}$ of X_1 on X_2 is negative, probably indicating that the total security index is inversely correlated with the physical factor taken in relation to other factors although r_{12} is positive and significant. It is also seen that the *cultural* factor is negatively correlated with *personal*, *economic* and *social* factors and significantly correlated with *civic* and *religious* factors taken individually as shown in Table 1. But the regression coefficient $b_{123} \dots b_{18}$ corresponding to this factor is positive and it accounts for only 6 per cent. in the variance of X_1 .

In the latter group, the index of forecasting efficiency E is 75.7 or 76 per cent; coefficient of determination is 0.94104 (R). This indicates that these factors taken together have accounted for nearly 94 per cent. of the total variance in X_1 (total security). Further it is found from the regression coefficients that the dominant factors that influence the total security in this sample, of *personal*, and *social* factors contributing respectively 37 per cent. and 18 per cent. to the variance in X_1 . The remaining factors could be ranked as follows in order of importance: *physical* (10 per cent.), *religious* (9 per cent.), *cultural* (6 per cent.), *ethical* (5 per cent.), *economic* (4 per cent.) and *civic* (4 per cent.). All regression coefficients are positive, considering the correlation coefficients taken in pairs of variables all the negative coefficients of correlation are insignificant, statistically. The economic factor is significantly correlated with the total security index but its correlation with other factors taken individually is insignificant except for the *personal* factor. The correlation of the religious factor with the other factors taken in pairs are all insignificant; however, this factor shows a significant correlation with the total security index (0.405).

Reliability.—In the questionnaire was included an equal number (30) of two mutually checking series positive and negative items. Split-half reliability was thus determined for two sample groups: high reliability is suggested by the scores— $r = 0.743$ for the group of research workers and

·727 for the other group; by the product moment correlation technique (e.g., checking items).

Validity.—The investigators are not aware of any standard scales or criteria, with which to correlate the findings on our Questionnaire. The inquiry being the first of its kind, at any rate, in this country, we suffer from the handicap of the absence of any objective standard. However, an indirect method of gauging the validity of our Questionnaire is under preparation, a description of which might not be found out of place. A series of concrete situations illustrating the behaviour patterns of an individual, closely approximating the groups of items comprehended in the Questionnaire, will be presented before the subject, with a scale of alternatives, implying graded sense of security. The subject will be asked to choose one of the alternatives and indicating his probable response to the situational call. The score thus obtained might serve as an external standard with which the scores on the Questionnaire might be compared. No final form has however been achieved hitherto.

Prompted by curiosity we undertook to measure the nature and amount of relation that subsists between the factor of intensity of opinion and the various security factors on the one hand and the economic status of the subject on the other (in Sample 2).† The subjects being mostly extracted from the middle class, this aspect of our inquiry was not very interesting. There was a positive correlation between the upper levels of economic status and the gross intensity. X_2 was 3·6856 and C was ·4682. The minuter analysis revealed that the X_c in the eight spheres (Physical, etc.) were 15·7212, 6·742, 20·3414, 11·0817, 10·3361, 16·6963, 9·2954 and 11·2038 respectively, and C was 0·489, ·3442, ·5378, ·4257, ·4140, ·5003, ·3962 and ·4278 in order. Limited as the divergence of the population tested is, the scores do not mean much. But when pressed for a wider and more various group, we may be able to discover important facts regarding the economic status as affecting the certainty of one's own opinion.

VI. CONCLUSIONS

The samples tested may not warrant any fundamental conclusion. But these surveys have helped in the preliminary exploration of the problem. Therefore the conclusions are with reference to these particular samples and naturally tentative.

In both the samples, the index is distributed according to the normal law and thus points to the validity of the procedure adopted.

† The Questionnaire administered to Sample 1 did not include the intensity factor.

The factors chosen as contributory to the sense of security were *physical, personal, economic, social, ethical, civic, religious, cultural*. The result of statistical manipulation of the scores shows that the security index is a linear function of the several factors to a fair degree of approximation, *i.e.*, the security index is subjected to direct proportional fluctuation according to the variations in the influence of these factors.

The study of the regression coefficients shows that in the first sample, three of the factors, *i.e.*, Social 29 per cent., Economic 15 per cent. and Personal 11 per cent., are the most dominant in regard to their influence in determining the security index, whereas in the second sample the factors are Personal (37 per cent.) and Social (18 per cent.). The chance factors in the two cases affecting the security index are about 16 per cent. and 6 per cent. of the variance respectively, while the rest, *i.e.*, 84 per cent. and 94 per cent. are accounted for by the factors chosen in the inquiry. This would indicate that the factors chosen fairly exhaust the field.

Taking into account the factor of intensity of opinion that has been introduced in the questionnaire and its relation with the economic status of the subject, coefficients of contingency C have been calculated for the second sample. Another coefficient of contingency has also been obtained between gross intensity and economic status. By gross intensity it was meant the intensity for the entire questionnaire by taking into consideration the largest times an intensity is ticked. The χ^2 test has also been applied and this shows that the hypothesis of independence of the factors is not disproved with respect to this sample and so the economic status does not seem to influence the intensity of opinion in a significant manner, so far as this sample is concerned.

*Relation between the economic status and intensity of opinion
in each of the eight security factors*

			C	χ^2
1.	Physical	.. ..	0.489	15.7212
2.	Personal	.. ..	0.3442	6.742
3.	Economic	.. ..	0.5378	20.3414
4.	Social	.. ..	0.4257	11.0817
5.	Ethical	.. ..	0.4140	10.3361
6.	Civic	.. ..	0.5003	16.6963
7.	Religious	.. ..	0.3962	9.2954
8.	Cultural	.. ..	0.4278	11.2038
9.	Gross intensity	.. ..	0.4282	3.6859

These exploratory surveys conducted on sound lines, warrant survey on a wider universe. The determination of the index in stratified universes in the country might reveal the extent of security people enjoy.

VII. A THERAPEUTIC SUGGESTION

The opinion held by the authors is that the tension in the pathological sense of the term, is not characteristic of any organism to start with; neither does it descend on the organism at some fateful moment. It starts rather at certain points within the societal regions and the consequent awareness in the self-region will affect the general poise in some measure. If it is not potent enough to seriously jeopardise the satisfactory tone of the referent region (which otherwise abounds), it gets dissolved. If the factors involved are very essential, the security feeling of the individual is at stake. The tendency in most of the normal human beings to maintain the balance will be sufficiently strong to defy minor disturbances, except in individuals whose equilibrium is exceedingly fragile and weak.

The fundamental postulate of the organismic outlook, that the organism is an organised system of energy is made more meaningful by another postulate that nature exists in the form of structured fields. The insecurity of a man is no doubt a total effect; but it is not an undifferentiated structure. It has its origin or origins in one or several of the regions of the life-space. A quantitative estimate of the sense of insecurity, if it is possible, could be obtained by taking into account the total organism alone; but for a qualitative estimate, it is necessary that we should use the instrument of analysis.¹⁵ Remedy should always follow diagnosis. The best way available for assessing this is to analyse the sense of security in each region, the contribution of each region to the total sense of security. The eradication of tension is achieved by removing the barriers, and with it the sense of insecurity vanishes. Blockage is not harmful as a rule; some are necessary and some useful. According to Brown, "It would be of the greatest practical and ethical significance if we knew more about the precise nature of a successful balance of blockages so that highly differentiated but still happy individuals would be the result."¹⁶

The following schematic representation¹⁷ would illustrate the nature of the problem and the cure it calls for.

¹⁵ Not structural-substantial but functional-relational.

¹⁶ *Op. cit.*, p. 292.

¹⁷ Appropriated with changes from Jellinek : *The Problem of Alcohol*, p. 20.

The presence of Tension in the psychological interaction generates

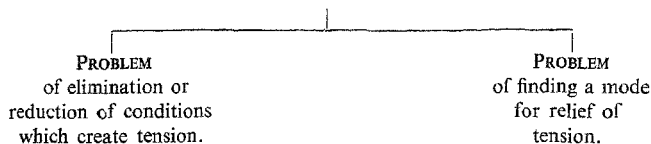
THE SENSE OF INSECURITY
in the individual personality.

It is painful and demands

RELIEF

This demand creates

TWO PROBLEMS



The former of the problems is on the societal plane while the latter on the individual plane. The concerted action of the sociologists, psychologists and social workers is essential for any wise remedy. This has to be planned keeping in mind the caution of Professor Brown: "For purposes of exact prediction one must characterise field—theoretically the whole personality of the individual. One must know the distribution of force, the reality dimension of the field in which this locomotion is occurring and the structure of the person."¹⁸

ANNEXURE I

*Section of Economics and Social Sciences, Indian Institute of Science
Bangalore 3*

SECURITY INDEX QUESTIONNAIRE

Please, fill up these particulars :

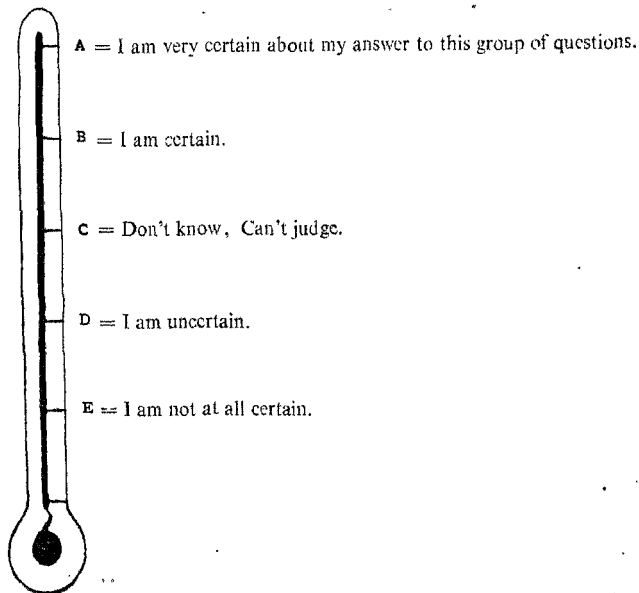
Name	Age
Profession	Postal Address
Religion	Married or Single
Income	Economic Status—
	(a) Rich
	(b) Well-to-do
	(c) Average
	(d) Poor
	(e) Very poor
Educational level	

¹⁸ *Op. cit.*, p. 300.

Directions for Answering

Your answers should be in terms of *Yes* or *No*. Therefore what you have to do is to encircle either *Yes* or *No*, as the case may be.

There are eight groups of questions; and we want to know the definiteness of your opinion regarding each group. To help you to indicate thus the intensity of your opinion, you must use the following scale. This is known as the Opinion Thermometer.

**OPINION THERMOMETER FOR THE SECURITY INDEX QUESTIONNAIRE**

This is to measure the intensity of your opinion. You have to write the letter A, B, C, D or E in accordance with the definiteness of your answers for the particular group. Place the letter in the margin, with reference to the whole group. An opinion thermometer thus implies the question

“ How definite is your opinion ? ”

and your indicating the definiteness by the letters A, B, etc., will be the answer. If you are very sure of your answer indicate it by writing the letter A; absolutely skeptical, E; if you can't judge the intensity of your opinion, C; if your opinion leans towards definiteness, B; and if towards indefiniteness, D.

There are eight groups of questions. Thus you will give your opinion eight times. Please keep this in mind and before beginning to answer get yourself well acquainted with the thermometer, *i.e.*, as to what A, B, C, D and E stand for. If the directions are now clear, you may proceed to answer the questionnaire.

SECURITY INDEX

Answer by way of encircling *either* Yes *or* No.

- | | | | | | | | |
|------|-----|--|----|----|----|-----|----|
| I. | 1. | Are you generally healthy | .. | .. | .. | Yes | No |
| | 2. | Are you disabled physically in anyway? | .. | .. | .. | Yes | No |
| | 3. | Are you confident that your constitution is strong and can endure any strain? | .. | .. | .. | Yes | No |
| | 4. | Has any early experience of yours contributed to your physical ailment? | .. | .. | .. | Yes | No |
| | 5. | Are you satisfied with your build? | .. | .. | .. | Yes | No |
| | 6. | Have you had any particularly dangerous incidents in your life? | .. | .. | .. | Yes | No |
| | 7. | Do you think you have inherited some of the defects of your parents? | .. | .. | .. | Yes | No |
| | 8. | Will you have to consult a physician often? | .. | .. | .. | Yes | No |
| | 9. | Do you think that care of body is absolutely essential? | .. | .. | .. | Yes | No |
| | 10. | Do you think you are quite normal regarding your constitution? | .. | .. | .. | Yes | No |
| II. | 15. | Do you regret the choice regarding your wife/husband? | .. | .. | .. | Yes | No |
| | 16. | Is the education that you have got quite enough for you? | .. | .. | .. | Yes | No |
| | 22. | Are your domestic affairs generally pleasant? | .. | .. | .. | Yes | No |
| III. | 33. | Will your monetary troubles be frequent? | .. | .. | .. | Yes | No |
| | 36. | Are almost all your needs readily satisfied? | .. | .. | .. | Yes | No |
| | 40. | Are you afraid you cannot educate your children without trouble to the family? | .. | .. | .. | Yes | No |

IV.	42.	Do you feel that you have not got what you deserve ?	Yes	No
	45.	Do you lack self-confidence ?	Yes	No
	48.	Do you feel that you are misunderstood by others ?	Yes	No
V.	62.	Are you satisfied with the moral aspect of your personality ?	Yes	No
	67.	Do you often experience 'stings' of conscience ?	Yes	No
	70.	Do you think it is wise not to give expression to all our whims and fancies ?	Yes	No
VI.	71.	Have you confidence in those who are supposed to govern you ?	Yes	No
	74.	Do you feel that the administration is gradually growing inefficient ?	Yes	No
	78.	Do you willingly invite public criticism or censure ?	Yes	No
VII.	81.	Are you religious in your outlook ?	Yes	No
	83.	Do you feel that you are a sinner ?	Yes	No
	87.	Do you believe that the order of things demands that you should be just, kind and good ..	Yes	No
VIII.	91.	Are you interested in music, painting and dancing ?	Yes	No
	95.	Are æsthetic values (like beauty) just fictitious of imagination ?	Yes	No
	99.	Are saints, in your opinion, just abnormal and thus burdens on society ?	Yes	No

Note.—There are in all 100 questions. The above may be taken to be a selection only.

ANNEXURE II

NOTE ON THE METHOD OF SCORING

1. The items included in the Questionnaire were made to admit of dichotomous answer. *Yes* and *No* were the anticipated, alternative trends of information that could be elicited from the Questionnaire. This was done with the purpose of rendering the Questionnaire easier to answer and more definite to score and tabulate than otherwise; application of statistical techniques was the guiding idea.

2. The selection of the items was done by a 'careful analysis of the field being measured'. The items included are various aspects of an individual's life in general; the reaction to each item is made to indicate the positive or negative trend of the attitude. Although each item contributes its share to the general information, provision has been made for

summing up certain answers to indicate the trend of attitude with regard to that particular aspect of human relations, and also for obtaining a total measure by summing up all the answers. In view of our purpose, *i.e.*, attitude measurement, it is not contemplated to consider individual's reaction as such but to concentrate on the group-attitude-behaviour. Of course the individual S.I. (Security Index) could be made the basis of a diagnostic procedure, later.

3. The selection of alternative answers was done by a *prima facie* consideration of the questions; this was augmented by expert opinion. That this method is justified is obvious enough; alternative methods either do not exist or are extremely difficult practically. Reliance on commonsense judgment is something which we cannot altogether dispense with. J. M. Symonds, in fact, mentions this at the head of the list of methods he proposes (see his *Diagnosing Personality and Conduct*, p. 157) and we have followed his lead when he advises "to score the questionnaire, using a commonsense or *a priori* key" (*Ibid.*, p. 158). In the scheme that we have employed the choice of either *Yes* or *No* expresses the presence or absence of the sense of security depending upon the wording of the question. The coefficients of reliability of this questionnaire when administered to two sample groups were 0.767 and 0.743, applying the split-half technique corrected by Spearman-Brown formula.

ANNEXURE III

TABLE I
Security Index (Sample I)
Table of Correlations, Means and Standard Deviation

	2 Physical x_2	3 Personal x_3	4 Economic x_4	5 Social x_5	6 Ethical x_6	7 Civic x_7	8 Religious x_8	9 Cultural x_9	1 Total x_1
2 Physical	..	0.3579*	0.08439	0.4850†	0.06921	0.2210	0.3450*	0.1612	0.5642†
3 Personal	0.3579*	..	0.4400†	0.4702†	0.3321*	0.06852	0.1318	-0.1228	0.5771†
4 Economic	0.08439	0.4400†	..	0.3247*	0.07076	0.1277	0.2752	-0.1460	0.5381†
5 Social	0.4850†	0.4702*	0.3247*	..	0.09303	0.1206	0.2541	-0.1936	0.6259†
6 Ethical	0.06921	0.3321	0.07076	0.09301	..	0.2187	0.1887	0.1470	0.4680†
7 Civic	0.2210	0.06852	0.1277	0.1200	0.2187	..	0.1614	0.3400*	0.4525†
8 Religious	0.3450*	0.1318	0.2752	0.2541	0.1887	0.1614	..	0.2982*	0.4364†
9 Cultural	0.1612	-0.1228	-0.1460	-0.1936	0.1470	0.3400*	0.2982*	..	0.2431
1 Total	0.3642†	0.5771†	0.5381†	0.6259†	0.4680†	0.4525†	0.4364†	0.2431	..
Mean	8.26	12.52	5.4	14.44	6.38	5.9	7.42	7.64	67.82
σ	1.453	2.876	2.5770	1.7986	1.889	1.825	1.297	1.425	8.8223

* Significant at 5% level.

† Significant at 1% level.

TABLE II
Security Index (Sample II)
Table of Correlations, Means and Standard Deviation

	Physical	Personal	Economic	Social	Ethical	Civic	Religious	Cultural	Total	Sum
Physical	.. 1.0000	.5777†	.371*	.6067†	.4043†	.3347*	.1724	.0640	.714†	3.8683
Personal	.5777†	1.0000†	.3310*	.6583†	.3404*	.2965*	.0943	.2385	.8504†	4.3871
Economic	.0871	.3310*	1.0000†	.1942	.2046	.1022	-.0082	-.1478	.8504†	2.4385
Social	.6067†	.6583†	.1942	1.0000†	.2324	.4296†	.2371	.3112*	.8076†	4.4767
Ethical	.4043†	.3404*	.2046	.2324	1.0000†	.0024	-.0034	-.0392	.4001†	2.5506
Civic	.3347*	.2965*	.1022	.4296†	.0024	1.0000†	.2742	.4106†	.4027†	3.3429
Religious	.1724	.0943	-.0082	.2371	.0034	.2742	1.0000†	.2818	.4058†	2.4590
Cultural	.0640	.2385	-.1478	.3112	-.0392	.4106†	.2818	1.0000†	.4383†	2.8530
Total	.6714†	.8504†	.4148*	.8076†	.4061†	.4927†	.4056†	.4383†	1.0000†	5.4901
Mean	7.6	11.72	5.48	13.08	5.92	5.86	6.86	7.76	63.68	
σ	1.8973	4.0556	2.1563	3.1550	1.8093	2.0299	1.8331	1.51472	11.312	

* Significant at 5% level (.288).

† Significant at 1% level (.0005).