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Technical Report

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USE OF NON-COGNITIVE INSTRUMENTS
IN PERSONNEL SELECTION AND APPRAISAL

by
T.Venkateswara Rao

T R No. 50
September 1974

Indian Institute of Management
Ahmedabad

To
Chairman (Research)
IIMA

Technical Report

Title of the report Use of Non-cognitive Instruments in Personnel Selection and Appraisal

Name of the Author T.V. Rao

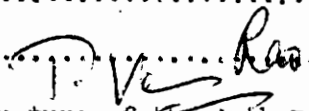
Under which area do you like to be classified? Organizational Behaviour

ABSTRACT (within 250 words)

This paper discusses the scope for using non-cognitive instruments. The instruments have been dealt with at three levels: self, social interaction, and person-organization interaction. Examples have been cited where scope for using a non-cognitive instrument in selection procedures is possible. The person environment (need press discrepancies) as a potential tool for selection of personnel is stressed. A review of the non-cognitive instruments available in India that are likely to be useful in personnel selection have been presented.

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USE OF NON-COGNITIVE INSTRUMENTS IN PERSONNEL
SELECTION AND APPRAISAL

T. Venkateswara Rao
Indian Institute of Management, Ahmedabad

This paper attempts to explore the scope of using non-cognitive instruments in personnel selection, and appraisal systems. By non-cognitive instruments is meant the instruments measuring behavioural dimensions other than knowledge, intelligence, abilities, aptitudes and technical skills around which traditionally personnel selection revolved. These non-cognitive instruments could be viewed broadly under three levels or categories: 1. instruments at the level of the self, 2. instruments at the level of social interaction, and 3. instruments dealing with the individuals' interaction with the occupation, professions, organization or the system in which he is a member. Each of these categories are defined in this paper below, followed by the exploration of the scope for use of these instruments in personnel selection and appraisal systems. A critique of the available instruments in India dealing with that level or category of behaviour is presented after this and suggestions are made for future work along with organizational implications. This pattern is followed for all the four categories of instruments. Usually in a typical selection attempt we define the job, make a job analysis and we look for the indicators of behaviour to perform the functions of the job. After an analysis of such indicators we develop instruments or tests to identify people possessing or having the potential to develop these indicators. In this paper indicators of behaviour that may have general utility in personnel selection and appraisal are explored. The discussion indicates the present status of measurement in India in relation to these indicators. An individual user will have to first establish the relevance, desirability, extent etc. of a given indicator with reference to the position(s) he is looking for. Then only some of the dimensions outlined here and remarks made would be relevant.

Instruments at Self Level

Instruments at this level deal with those dimensions of the self that the individual carries with him for over some period of time, that are within him and influence his behaviour and thereby his performance of a task. These may be personality traits that are stable structures for over a period of time, which may be difficult to specify as it varies from individuals to individual

and for the same from one to other characteristic. But these are enduring enough to warrant consideration at the time of selection, training or promotion. Some such important attributes include: self-perceptions, self-acceptance, autonomy, motivational dispositions, anxiety, concerns, adjustment, neurotic-tendencies, extroversion-introversion, intolerance of ambiguity, authoritarianism, rigidity-flexibility, independence, initiative taking disposition, risk-taking, conformity, inferiority, insecurity, ego-strength, emotional maturity, etc. While several such dimensions could be listed, these seem to be somewhat appropriate and have attracted the attention of psychologists in India.

Any job requires certain personality characteristics or dispositions to do it well. For example a salesman requires high internal control, moderate other directedness, need achievement, high sensitivity, high concern for the work, the customer and the organisation, problem solving-orientation and tolerance of ambiguity. Similarly a manager requires to have independence, concern for others, creativity, flexibility, modernization values, commitment, honesty, and certain other value patterns. A doctor besides the technical knowledge should have a high concern for others, patience, empathy, high modernization, moderate of economic values and so on. A business entrepreneur needs to have high achievement motivation, initiative taking, ability, planning-orientation, moderate risk-taking tendency, economic values and values for independence etc. Similarly in new organizations in their initial stages of existence need employees having a high tolerance for ambiguity besides other things and otherwise they are likely to be frustrated and their socialization may be distorted affecting the growth of the organization. Evidence is also available from research that the qualities required to enter an organization are not same as the qualities required to be successful in that occupation. For example one hypothesis could be that the characteristics required to be successful in any given occupation or profession in the earlier stages may be different from the characteristics required to be successful at later stages. One example supporting this hypothesis is the Block Extension educators in primary health centers in the family planning programmes. In the beginning when there was a need to create awareness and motivate people to accept family planning the extension educators did a good job. As time passed their performance levels came down and today they face several problems and in a majority of cases they are very ineffective. This is because in the earlier they required no special traits apart from knowledge about family planning and some sociological knowledge about the villages where they work. This was sufficient to create awareness and attract potential acceptors who already had positive predispositions to family planning. As

/This observation gives rise to several hypotheses.

time passed such acceptors got reduced as they became regular users needing no more care. Today the extension educator faces resisting population and he needs altogether different personality disposition to tackle these. For example empathy, extension motivation (concern for others), high initiative taking ability, persuasiveness, commitment, high social values and achievement motivation are some traits required by today's extension educator to be effective. Even a moderate or low levels of these would have done well seven or eight years back. This is also the case with several other categories of personnel like salesman (as the sales field is continuously changing), managers (as the industrial environment is changing continuously) and so on. The cognitive ability based selection procedures unfortunately do not take this changing environment and are often based on the assumption that if X abilities are given the person can do Y job at any given point of time. While these basic abilities are necessary, they would not be sufficient. The non-cognitive components allowing scope for change and review need to be considered for the development of effective selection procedures.

In a recent survey of non-cognitive instruments in India by Pareek and Rao (1974) it was found that there are at least 218 instruments available in India dealing with several of the dimensions of behaviour at the self level indicated above. Of these about 73 are adaptations of instruments developed abroad. These are tests and scales using Thurstone, Likert, Guttman etc. scaling techniques and projective techniques. Several of these are reproduced in the Handbook of Psychological and Social Measurement by the same authors. Many of these instruments are standardized. The only unfortunate part of the instrumentation at the self level in India is that they are based on and tested out mostly on adolescents and youths for reasons of convenience and as such may have limited value beyond providing leads for further instrumentation in personnel selection and appraisal systems. A detailed study of these instruments is very likely to provide conceptual clarity and make the job easier for future instrumentators in personnel selection. Some of these instruments could be used as such but items could be borrowed and many new instruments can be developed on the same dimensions.

Instruments at the Social Interaction Level

There are several limitations of the instruments at self level by virtue of the fact that most of these are self-reporting instruments. Self-reporting instruments have the problem of faking in a selection situation. In order to avoid these problems an alternative could be to put the individual in interactional situations and observe him. This observation may be to look for certain characteristics supposedly associated with competence or success in the job for which the person is being considered. The interaction situations could be simulated actual job situations, or group

meetings or situational paper-pencil tests dealing with social interaction behaviours. Behavioural dimensions like initiative taking behaviour in social interaction, inquisitiveness, openness to feed back, interpersonal aggressiveness, dominance, openness to ideas of others, acceptance of feelings, style of presentation of the self in an interacting situation, sensitiveness to others' feelings, building on the ideas of others, authenticity in interaction, rigidity-flexibility, directive behaviour use of group resources, involvement, timidity, leadership qualities, styles of influencing others, empathy etc. could be assessed through these techniques.

In group situations whenever such techniques are used the observations should be systematized to include those dimensions that are crucial to the performance of given role. Rating scales could be used by the assessors to provide objectivity. It is futile to assess each individual on all the possible dimensions of behaviour in an interactional situation. A system like that of Bales or Flanders could be used to quantify the interaction behaviour. Studies have been made in India where teacher-student interaction has been objectively quantified on a 10-category frequency matrix making it possible for analysing the effects of teacher interaction patterns on student personality (Pareek & Rao, 1971). Such systematic observational technique-based selection is desirable.

Another variation is selection through observation of interaction in actual situations. For example before recruiting the salesmen, probationary officers, managers, extension workers, or administrators etc. who have to deal with people it may be useful to put them in actual situations and assess their behaviour. For example in selecting extension educators one strategy may be to take a group of them to a village and ask them to make contacts, come back and report. Observers could go with them, persons whom they met could be interviewed and self-reports on interaction could be studied for assessment. One such rating scale based on the actual situational behaviour is by Lokhande and Moulik (1972). This scale has weighted rating system for leadership behaviour in actual situations.

Situational paper-pencil tests are also of immense use in assessing interpersonal orientations. One example of such tests is a general attitude scale by Anand and Dave (1969) developed at the Regional College of Education Mysore. This test presents several social interaction situations and the person is asked what he would do in such situations. This test has also been tried out successfully in student selection. Another example is

a classroom trust scale by Areek and associates (1970) where situations testing interpersonal trust are presented and alternative responses are given. The alternative reactions are presented in such a way that the assessee cannot guess which alternative is desirable unless he knows what is being tested (which is rather difficult to guess). These kinds of situational paper-pencil tests are generally projective or semi-projective in nature and require the development of objective category systems. In the final use of these tests it is desirable also to use more than one assessor to avoid subjectivity. Another methodological variation may be the presentation of the same test to persons who are likely to work together. Responses may be compared to measure conflict or potentiality for conflict. For example Kakkar (1970) has developed a scale to measure the conflict between parents on child-rearing practices. This methodology may be quite useful in employee appraisal and promotion. New promotions need personnel to work with new bosses. Before promotion placement, allotment of supervisors could be made reducing the conflict if attitudes of both level personnel are measured simultaneously on same instruments. This methodology has been used very often in studies of role-conflict.

Another dimensions of interaction includes the style of interaction one brings into the situation. A number of jobs like those of managers, doctors, teachers, sales personnel, administrators, heads of units etc. require interpersonal interaction dispositions of different kinds. Objective self-reporting techniques are available where faking could be reduced. For example FIROB by Schultz is one such instrument measuring Fundamental Interpersonal Behaviour Orientation of an individual. It gives the orientation of an individual on the basis of his needs to include and to be included, to control and to be controlled, to get affection and to be affectionate. There are certain jobs which cannot satisfy needs to control others. In such position individuals who have high need to control others are likely to have problems. In positions requiring independence in action and no supervisors individuals with high needs to be controlled are likely to be dissatisfied. More such instruments on person-person interaction need to be developed as this is an essential component in most of the jobs. When such instruments are developed, before they are actually being used it is better to conduct experimental studies to find out the extent of their fallability in selection.

Person-Organization and Person-Profession Interaction based Selection

This is rather another approach to personnel selection. This is based on the model that each profession or organization has the potency of satisfying certain needs of individuals more than certain other needs (Mathur and Rao, 1974). For example a person who has a high need to influence others is likely to be more satisfied in a teaching job or a sales job, a person who has high need to control others may be

happy being an administrator, a person high on extension motive, i.e. concern for others is likely to be a happy social worker, a person with high need for achievement may be comfortable in an organization encouraging innovativeness, a security oriented person may be comfortable in an atmosphere where he has no fear of losing job and so on. Organizations, as they grow, establish a characteristic culture of their own which is likely to satisfy certain needs of people rather than others. When people whose needs are different than the organization or the profession has the potency to satisfy, join the organization or take up profession they are likely to be ineffective. In such cases extra efforts are needed to integrate the individual needs with those of the organization. In order to avoid these problems a selection strategy may be used where organizational press and occupational press (in Murray's terms) may be assessed and during selection the gamut of individual needs may be assessed to see the congruence. Stern (1969) has developed some parallel scales to measure 30 such needs and parallel press provided by the organizational environment. However, he did not use these for selection purposes and it may be useful to try these out. This strategy would be useful in relatively older organizations that have stabilized cultures. In organizations with continuous changes, regular assessment of the organizational press may be needed.

Selection based on attitudes towards the job or the components involved in the job is also another dimension of selection. This is based on the premise that commitment to work is an essential component for successful accomplishment of any job. Here commitment is not treated as a general personality orientation but is taken in relation to a specific task. For example a good family planning worker needs to have been strongly convinced himself of family planning, otherwise he may be dysfunctional at some point of time or other. Similarly a teacher needs to have certain types of beliefs and attitudes towards student, knowledge and dissemination of it and towards teaching profession as such. Projective tests may be used to measure these kinds of behaviours. Other scaling techniques also might be useful. There are several value scales (Pareek and Rao, 1974) available which could be used to measure if the work value systems of the individual fits into the value system required by the job. For example, the work value scale for doctors developed by Rao and Pareek (1973) could be used to predict if a doctor is going to be happy in a rural environment, in a city hospital, in a medical college or in private practice. Similar value scales are being developed for managers which would help in counselling managerial job-aspirants and help them choose from different types of managerial positions so that their values systems are not thwarted. In any case organizational, professional, occupational cultural diagnoses should go hand-in-hand with person diagnosis in any effective selection system. Equal stress should be made on predicting the outcomes of interaction between the person and the organization as on the technical competence, personality requirement, social competence etc. of the position incumbent.

Experience is available from some organizations where investments on systematic selection procedures ended up in selecting highly competent persons who did not fit into the culture and left the organizations a few weeks after they joined. Such wastages could be avoided with this strategy.

Non-Cognitive Instrumentation in India

Several instruments have been developed by Indian behavioural scientists that deal with some of the above mentioned dimensions. A majority of them are useful in selection although most of them have been developed for research purposes. Some of them could be used for discovering relationships that might indirectly lead to development of selection tests and appraisal systems. A survey has been made of all such research instruments available in India by Pareek and Rao (1974). About 503 instruments have been located that fall into four categories: Personality, Education, Organizational Behaviour and Social Phenomena. A broad category-wise break up of these instruments is presented in Table 1 and further descriptions are presented below -

Table 1: A Break-up of Non-Cognitive Instruments in India

Dimension	Number of Instruments available		
	Adaptations	Originals	Total
<u>PERSONALITY</u>			
1. General instruments	51	83	134
2. Adjustment	11	29	40
3. Anxiety	5	5	10
4. Self-concept	0	9	9
5. Motivation	6	19	25
Total	73	145	218
<u>EDUCATION</u>			
1. General	0	18	18
2. Student Problems and Adjustment	0	11	11
3. Interests and Preferences	4	21	25
4. Attitudes	2	22	24
5. Institutional	2	4	6
Total	8	76	84

ORGANIZATIONAL BEHAVIOUR

1. Industrial Organizations	5	27	32
2. Hospitals	0	9	9
3. Military and others	0	12	12
Total	5	48	53

SOCIAL PHENOMENON

1. Values	6	18	24
2. Stratification	0	9	9
3. Social Stereotypes	2	12	14
4. Modernization and Social Change	0	53	53
5. Religion and Morality	0	15	15
6. Other Social Attitudes	0	33	33
Total	8	140	148

As mentioned earlier a great number of instruments are available at the self-level under personality. About one third of them are adaptations. General instruments under this section deal with several dimensions like intolerance of ambiguity, neuroticism, extraversion, rigidity-flexibility etc. These instruments in personality deal with various categories of people including students at different age levels, farmers, teachers, block officers and executives. These instruments used different scaling techniques and projective methodology. A great majority of them have been standardized and reliabilities have been worked out. However about half of them have not used proper validation procedures. Items from a number of these tests could be used for several selection situations. The relevance of that particular dimension to the successful performance of the job has to be established before a given instrument is used for selection. Several of these instruments can be used in counselling situations for employees. For example the adjustment, anxiety and self-concepts instruments can be used in counselling, orientation etc. programmes and placement

Instruments in education are mostly useful for student and teacher selection, counselling, and teacher training programmes. The general instruments in this section deal with dimensions like teacher personality, effectiveness, styles, student aspirations and interactions.

Dimensions like cosmopolitaness, role conflict, leadership styles, role perceptions, job-satisfaction, human relationships etc. are covered. The instruments under attitudes measure attitudes to several aspects of education like compulsory NCC training, teaching, extension education, cocurricular activities, modern educational trends, medium of instruction etc. The instruments under educational institutions deal with institutional environment. Most of these instruments are well standardized and are useful in student counselling, teacher-trainee selection etc. However, more projective and other methodology based tests need to be developed in this area.

The instruments under industrial organizations cover attitudes towards industry, adoption propensity, interpersonal trust, workers' attitudes towards management, supervisory qualities, organizational climate, labour unions, bureaucratic orientation, sales orientation, morale, work-motivation etc. Most of these are Likert or Thurstone scales and a few are check lists. Reliabilities have been reported for most of them. The instruments on health organizations deal with dimensions like patient satisfaction with doctors, nurses, treatment etc., community image of the hospital, interrole perceptions etc. Instruments on other categories deal with job-satisfaction, administrative decentralization, leadership styles etc. of various categories of non-industrial personnel. Several of these instruments are also well standardized. However, these instruments have more broader value in organizational development programmes, organizational reorganization etc. than in selection per se.

Value instruments have a great value in selection for several occupations. Fortunately several instruments are available dealing with dimensions like conservatism, fatalism, scienticism, authoritarianism, harmony, love, sympathy, tolerance, economic aspects, security, independence, creativity, modernism, dignity of labour, political values etc. These are well standardized instruments and cater to different groups of persons. The instruments on stratification are useful for screening persons on the basis of socio-economic status etc. However the instruments available may have to be modified as most of them have been developed years back. Instruments on modernization and social change also have a special value as most of the emerging occupations need modernization attitudes. Instruments dealing with family planning, artificial insemination, adoption of innovations, community development programmes, change-proneness, etc. are available. In general, instruments in this section are also well standardized and are likely to be useful in selection and training programmes.

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