

## PERSONNEL SELECTION\*

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### Historical

From the earliest times some kind of a test has always been used for selecting incumbents of certain posts. The oldest method of selection, known to us, was an examination in school or college subjects. When the number of candidates for any post was small the method employed was the *viva voce* examination. In this situation, the examiner combined the functions of testing the knowledge of the candidate in certain academic subjects and of assessing the traits of personality displayed by the individual during the examination. As the number of candidates increased the *viva voce* examination was found time-consuming and inadequate. Public examinations were, consequently, organised. Written question papers were distributed and the candidates were required to write answers in note-books. The answer-books were subsequently scrutinized by the examiner. The testing of the standard of achievement attained by a candidate in particular subject was thus accomplished, but the personal contact between the examiner and the examinee was lost. The assessment of personality traits, which was one of the objects of the *viva voce* examination, could not be achieved. To overcome this difficulty an interview with each candidate was considered necessary and the selection procedure came to have two steps in it, namely a written examination and an interview. This method has been in use for a long time now.

A careful examination of this system of selection reveals that the written examination aims at measuring a candidate's abilities developed by the exercise of cognitive powers. The interview, on the other hand, attempts to assess the personality traits of the candidate by observing his behaviour pattern in the interview situation and interpreting it in the light of the biographical data obtained during the interview.

In the past the selection of personnel in the Indian Armed Forces, particularly for the officer ranks, was made by this method. Before the war the officers of the Indian Armed Forces were selected by a written examination followed by an interview. The introduction of psychological techniques in the process of selection is a development of this system. The psychological tests were first used for the selection of personnel by the American Army in the year 1917. As a result of conscription ordered by the American Government during the first World War, thousands of young men were available for national service and it became rather difficult to use the ordinary method of selection for separating individuals who could make good officers from those who would be good as Other Ranks. Psychological tests were used to overcome this difficulty. They provided quick diagnosis. Large numbers could be handled and a verdict

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given on them in a short time. It has, however, to be remembered that the tests used by the Americans were only tests of intelligence. The American Psychologists at that time were making selection to the officer rank purely on the basis of the level of intelligence. This method provided a measure of the cognitive aspects of the mind of the candidates but made no attempt to assess the emotional and volitional aspects.

In India during the second World War, with the expansion of the Army, a large number of candidates offered themselves for the commissioned rank. The increase in the number of recruits put such an amount of strain on the method of selection consisting of a written examination followed by an interview that it ultimately broke down. Under the stress of war, a method was needed which could finish the selection procedure quickly. It is common knowledge that if a written examination is conducted in two or three subjects, for a large number of candidates, it takes at least three months to announce the results. It was not possible during the operation of hostilities to wait for such a long time. The written examination, consequently, was given up and the candidates were selected on the basis of two interviews. The first interview was conducted by a Provincial Interview Board and the successful candidates were interviewed a second time by the Central Interview Board. This method which employed only the technique of a formal interview failed to give satisfactory results. The wastage at the Officers Training Schools increased to 40 per cent. Dissatisfaction was, therefore, expressed with this procedure of selection.

In 1941 Britain had evolved a system of selection for officers in which psychological techniques were employed. It was an improvement on the old American method used in 1917, in as much as it measured the intelligence of the candidates and also assessed their personalities. This method was adopted, after suitable modification, for the Indian Armed Forces in the year 1943. By July 1943 there were six Officers Selection Boards, as they were called in those days, functioning all over India. They were using a technique which considerably cut down the time of testing. Each Board could test about 400 candidates in a month. The new method gave better results which was indicated by the fact that during the period of 2½ years the wastage rate at the Officers Training Schools came down from 40 per cent. to 9 per cent.

The method in use at the present time has undergone a great deal of modification since 1943.

### **THE PRESENT METHOD—OFFICER SELECTION**

It was said above that the traditional method of selection has generally been a written examination plus an interview. The present method used for the selection of officers for the Armed Forces is the same except in one respect. The interview has been made more elaborate, systematic, definite and accurate. In the present method the educational achievement which is largely a function of the cognitive processes is given equal weight with personality traits. The

candidates have first to go through a written examination conducted by the Union Public Service Commission (U.P.S.C.). The subjects in which they are examined are English, Mathematics and General Knowledge. The total number of marks for the three subjects is 100. The candidates who secure 40 per cent. and above at the U.P.S.C. Examination are sent to the Services Selection Boards for psychological testing. The candidate, in order to pass the psychological tests, must get 40 per cent. of marks. The marks of candidates who secure 40 per cent. and above at the Selection Boards are added to the marks obtained by them at the U.P.S.C. A list is prepared in which names are placed in order of merit on the basis of the aggregate of the marks scored by the candidates at the U.P.S.C. and the Selection Board. Candidates are then selected from the top of this list according to the number of vacancies existing for a particular course. The written examination conducted by the U.P.S.C. is of the ordinary type used by all the Universities except that the paper in General Knowledge takes the form of an Objective Test. The method employed by the Service Selection Boards may be explained in detail.

Broadly speaking, an ordinary formal interview also uses the psychological technique for the assessment of personality. The behaviour of the candidate in the interview is watched and conclusions are drawn about his mental make-up. There is one disadvantage in the formal interview, namely, that it may not be possible during the short time available to the interviewer to be able to pierce through the masked behaviour of a candidate. The candidate may display a superficial personality in the interview and his real innate mental structure may pass unobserved. The basic personality of a candidate can be seen either by a trained eye or by putting the subject under an emotional stress or by administering Projection Tests. It is not suggested that the formal interview is not of any value. In fact in the hands of a mature, stable and experienced interviewer who has considerable knowledge of human nature, it can give good results. But when the numbers to be interviewed are large the provision of suitable interviews in adequate numbers becomes a problem.

The S.S.Bs. use three methods of assessing a candidate's personality. The first is the method of formal interview. This is conducted by a senior officer of the Armed Forces who generally holds the rank of full colonel or above. It is reasonably correct to assume that an officer of that status has sufficient experience of service conditions and of human nature to be able to assess the suitability of a candidate for a commissioned rank in the Armed Forces specially when he undergoes training for that purpose.

The second method is that of putting a candidate in situations which are miniatures of those which he is likely to come across during his service career. These situations present a problem which is to be solved by a group of candidates. The group normally consists of 8 to 10 candidates. The problem is of a practical nature which generally takes the shape of taking an object over a number of obstacles under controlled conditions. The group is told that the problem is not solved by merely the object reaching its destination

but that the complete solution requires the reaching of every member of the group to that destination. There are some situations in which the candidate has to work alone. The emotional stress is produced by :—

- (1) The knowledge that they are all competing against one another for a job.
- (2) By the physical stress which the candidates experience in the solution of the problem.
- (3) By the obstruction created in the work by the less intelligent members of the group who want to contribute their ideas which are really not practical.

While the candidates are working on the solution of the problem their behaviour is observed by officers who have been trained previously in this technique.

The third method is that of using the projective technique. The candidates are administered two questionnaires which, when completed, provide biographical data for each individual. Two intelligence tests—one verbal and the other non-verbal—are administered to measure the intelligence of each candidate. The two tests used for the assessment of personality are the Word Association Test of Jung and the Thematic Apperception Test of Murray. It may be pointed out that the tests used are not the same which were produced by Jung and Murray. The S.S.Bs. are using word stimuli and thematic pictures, which though based on the principles enunciated by Jung and Murray, are a complete new version of the technique evolved by them. The Psychologist on the Services Selection Board assesses the personality of each candidate with the help of the questionnaires, the results of the intelligence tests and the responses to the tests of personality.

A list of qualities of personality has been prepared. This has been arrived at by condensing the opinions of over 250 senior officers of the Indian Army with regard to qualities which, according to them, an average officer should possess. The three members of the Selection Board who use the three different techniques enumerated above, assess these qualities on a Rating Scale prepared on the basis of qualities required in an average officer. Finally, they write a report on the personality of a candidate as assessed by them and award marks. All the members of the Board then have a conference and the final assessment of the candidate's personality is made. The total number of marks for personality qualities is 900.

In the case of the selection of pilots for the Air Force the candidates are given an additional test of flying aptitude. This test predicts the capacity of an individual to be able to imbibe flying training while under instruction at the Academy.

### **Other rank selection**

Selection of the Other Ranks of the Armed Forces is being progressively done by psychological methods. Psychological tests are used for selection of airmen for every job in the Indian Air Force. The Indian Army and the Indian Navy are using them for selection

to the recruitment of technical trades. The problem of introducing Other Rank selection was raised in 1944. A fear was expressed at that time that the introduction of psychological tests might adversely affect recruitment. Psychological selection, therefore, was introduced on an experimental basis in five Recruits Reception Camps for a period of three months. At the end of this period it was noticed that the fear of the psychological tests adversely affecting recruitment was not justified. In 1945, therefore, Other Rank selection was introduced for all the Three Services. After the war, it ceased to function in the Army and the Navy but continued to operate in the Air Force. The other two Services gave up Other Rank selection by psychological methods because they found it difficult to provide personnel for selection duties. They are, however, slowly taking up Other Rank selection once again.

Other Rank selection differs from Officer Selection. The emphasis on the case of the Other Ranks is on testing of aptitude rather than on assessment of personality. Recruits are given Intelligence and Aptitude Tests which have been devised in India and standardized on Indian population. Their personality is assessed in a formal interview by an officer who has been trained for the purpose.

The development of Other Rank selection has been rather interesting. The selection of officers was easy to begin because the method could be borrowed from United Kingdom and started with suitable modifications. The problem for the Other Ranks was different. Because of compulsory and universal education in England every recruit who offered himself as an Other Rank in U.K. was literate. The tests devised in England were meant for people who could read and write. In the Indian Army, during the war, 80 per cent. of the recruits who came to the Recruits Reception Camps were illiterate. Tests devised in England could not be used in this country. A number of Indian psychologists were, therefore, recruited by the Armed Forces and entrusted with the task of devising tests for the Indian Other Ranks. To start with, a few paper-and-pencil tests were devised. No reading or writing was required in these tests. The recruit was given diagrams and pictures and in solving the questions set all he had to do was to draw a line or make cross or a circle with a pencil. It was observed that the co-ordination of finger muscle required in these small pencil operations was not present in these recruits. They felt most awkward when asked to handle pencils and it could be seen that even such a simple operation as drawing a line or making a cross was painful to them. These tests were, therefore discarded. The next step was to try the picture sequence test. A developing situation was portrayed in 5 or 6 pictures and the recruits were asked to arrange them in an order that will show the chronological development of the situation portrayed in the pictures. It was again observed that a large number of recruits could not appreciate two dimensional representations. They would put pictures upside down or slantingly and in a haphazard order. This test had also to be discarded. Finally Performance Tests were experimented with and it was noticed that the recruits responded well to handling three dimensional material.

Consequently, Performance Tests are in use for illiterate recruits. They are given batteries of Intelligence Tests, Mechanical Aptitude Tests, Morse Code Aptitude Test and for those who can read and write Clerical Aptitude Tests.

There was one more difficulty that was experienced in dealing with the Performance Tests. These tests, till the time when the Indian Armed Forces started using them, were Individual Tests. As is well-known an Individual Test is unsuitable for large scale selection because of the length of time and the large number of selecting personnel involved in its operation. A technique was consequently evolved which turned the Performance Tests into Group Tests. In 1917 American psychologists had turned Verbal Intelligence Tests into Group Tests and these provided a method by which large number of candidates could be tested in a short time. The psychologists of the Indian Armed Forces may modestly claim to have made a useful contribution to psychology by evolving the group technique as applied to Performance Tests.

The tests used for the Other Ranks are working well. They have brought down the wastage in training institutions to about 4 to 5 per cent. The tests evolved in India for the Other Ranks are now being used by the British Armed Forces for the purpose of selecting Gurkhas. These tests were supplied to U.K. by India in 1947.

### Selecting personnel

The methods described above, both for the selection of Officers and the Other Ranks, are not by any means perfect. Like all other measurements the measurement of human intelligence, aptitude and personality is accompanied by a certain amount of error. All that can be claimed about the new method is that it is an improvement on the traditional method of examination and the formal interview. The psychological tests help to make the interview more definite and accurate. It will be interesting to see some of the limitations under which the tests work.

The results of the psychological tests have to be interpreted before a decision can be made about the suitability of a candidate for a particular job. Interpretation of results, specially those obtained from tests of personality, is a delicate matter. The selecting officer, on whose shoulders falls the responsibility of interpretation, must be a mature person and must have undergone a thorough course of training in interpretation. An analysis of the process of interpretation shows that the mind of the interpreter passes through the following phases :—

- (1) Observation of behaviour or response of the candidate to the test situation.
- (2) Identification of the mental trait which is the cause of the candidate's behaving or responding in that particular manner.
- (3) Evaluation of the utility of this trait in the context of service life.

- (4) Estimation of the improvement likely to be effected by subsequent training in the trait, if it appears on evaluation to prove unsatisfactory for service interests.

It is evident that the final decision about the suitability of the candidate depends, to a considerable extent upon the judgment and the sense of values of the selecting officer. He himself, therefore, has to be very carefully selected. He must be gifted with a keen power of observation. To observe behaviour and to find the cause of that behaviour requires a penetrative insight into human affairs. Interpretation of behaviour is an attempt to ascertain the motives of an individual. It is not everyone who can correctly ascertain human motives without the judgment being influenced by one's own likes and dislikes. The interpreter must be stable in emotions and rational in outlook. He must keep his likes and dislikes under control and bring an objective frame of mind to the interpretation of behaviour observed by him. He must have enough knowledge of human nature and also of service conditions to enable him to assess the suitability of the candidate for the service. This type of individual is not very easy to find. All that one can do is to select the best from amongst those who are available and thus ensure that the best results possible under the circumstances are being achieved.

The question of interpretation of behaviour of the candidate at the Services Selection Board assumes greater importance when it is appreciated that the majority of young boys who offer themselves for commissioned rank are quite ignorant of service conditions. The gap between the service way of life and the life of the average educated middle-class Indian boy is very big. The life in the Services is different from the life led by an ordinary boy who comes from an average middle-class family. The language used in the Services for routine work is English whereas a young lad speaks his own mother tongue and does not have recourse to English unless it is necessary. The method of eating in the messes with tables, chairs, crockery and cutlery is foreign to most of the candidates. The sharp, snappy and jerky way of issuing orders is very different from the gentle and slow way of speaking in which the average youngster has been trained. The pronunciation, accent and the intonation of an average officer while speaking English is at great variance from that of an average school lad in the country. This gap between the two lives has to be constantly kept in mind by the selecting officer. However rational and objective the selector may be, if he ignores the social conditions and the environment of which an average lad of the country is the product, he is likely to go astray in his conclusions. The absence in some of the homes from which the boys come of high standards of living, speech and social behaviour maintained by the Army is a matter which must be carefully appreciated. The selecting officer has to carefully examine the lack of opportunity for acquiring that bearing which is called officer-like. He has to consider whether the provision of this opportunity now would bring the lad up to the standard. The efficiency of the selecting officer consists in exercising imagination which enables him to visualise a raw and crude lad after four years of training at the National Defence Academy. The selector has to say whether this lad who at

the moment appears submissive, uncouth and soft can, after four years of training, be turned into an average officer. Nothing but the experience of having watched such young recruits during and after training would help the selecting officer in this matter. He has nothing to guide him except his experience of service life. Research is being conducted at the moment which is intended to produce a scale that will show the amount of improvement in different qualities of personality after each successive year of training. This research project is bound to take time and till such time that this scale is ready as a guide to the selecting team, officers will have to depend on their own experience of training human beings for work in the Armed Forces.

### **THE PROBLEM OF VALIDATION**

We may turn our attention from the selecting personnel to the tests employed by the Services Selection Boards. A few years back the tests used were of English origin and consequently not quite suited for Indian population. The shortcoming has now been removed. Practically all of the tests used at the moment are devised by Indian Psychologists and standardised on Indian population. There is, however, a difficulty which the research worker in the field of mental testing is experiencing all over the world. This is the difficulty of validation. To validate a psychological test one has to obtain an external criterion and correlate it with the test results. The co-efficient of correlation in this case gives us the figure which indicates the validity of the tests. The difficulty that is being experienced, and this difficulty is much greater in the realm of personality assessment, in order to be proved valid, must compare favourably with the assessment made by someone whose knowledge of the individual's personality is correct. It is difficult to find the person who can give us a correct estimate of a candidate's personality. Experience has shown that parents, friends, teachers and senior officers are willing to say whether the assessment of the personality of a lad, made by somebody else, is right or wrong, but they are very hesitant to produce themselves a pen-picture of the personality of the individual. In all experiments of validation this is a great difficulty. In most cases the criterion is either not available at all or if it is, it is unreliable. One begins to wonder, therefore, how to validate the psychological tests. The best that one can do under the circumstances is to take three or four criteria, though not quite reliable, and strike an average of the validity co-efficients obtained from each. The final figure thus received will perhaps be nearer the truth than any other single validity co-efficient.

### **QUESTION OF LANGUAGE**

One more problem which is gradually arising and is soon likely to gain considerably in magnitude is the problem of language. Hindi is the national language. The States are rapidly adopting the policy of imparting education in regional languages. It is possible for a boy in some States to pass the Matriculation or equivalent examination without having taken English as one of the subjects.

Although English has been made an optional subject many boys still offer the subject for their examinations. It is, however, reasonable to suppose that in a few years time the knowledge of English of the candidates will gradually deteriorate. It may also happen that some boys might arrive at the Services Selection Boards who have no knowledge of English at all. It will not be fair to assess the personality of these boys through the medium of English. If the standard of English remains the same in the Armed Forces as it is at the moment, and the standard of English in the Schools goes steadily down, the linguistic gap between the two groups will become wider. This increasing gap will not only create difficulties in the work of selection of personnel, but will also considerably impede the normal rate of imparting training. Since all training, specially in the case of officers is in English, a poor knowledge of English on the part of the cadets is bound to create a difficulty. This difficulty, however, is being slowly tackled. Tests are being devised which use either no language or very little of it. The Army has laid down that by the latter half of 1956, Hindi will be prevalent in the Service. The Indian Navy is experimenting with imparting instructions to ratings in Hindi. At INS "Circar", frequent courses for ratings for different branches are run in Hindi. It is quite understandable that once Hindi becomes quite well-known by everyone, the problem of language in selection and training would disappear, but during the transition stage it will create difficulties and special attempts will have to be made to overcome them.

### **INTEGRITY OF SELECTION PROCEDURE**

We might look now to another aspect of the selection procedure, namely, its integrity. Whenever an organisation is entrusted with the responsibility of selecting candidates for certain important posts it is its duty to take such measures as will create confidence in the public about the fairness of its working. Not only must the selectors be men of highest integrity but the procedure of selection must be such that all chances of favouritism being practised must be eliminated.

To avoid all possibilities of lapses from the accepted standards of fairness it is advisable to evolve a method which will reduce the chances of such lapses to the barest minimum. It is satisfactory to note that the method used by the Armed Forces is such that the possibility of any undesirable behaviour on the part of selecting personnel is very small. Officers of the Selection Board are carefully selected and the two major qualifications required of them are integrity and maturity. Over and above ensuring the integrity of the officers the system evolved is such that it is not possible for a candidate to gain unfair advantage. Of the three members of the Services Selection Board, each observes the candidate independently and, on a percentage basis, awards marks out of a hundred. He does this completely independently and without discussing the candidate with anyone of his colleagues. The marks thus scored by the candidate are called the initial marks. After having awarded marks independently the three officers meet in a conference and discuss the candidate. After discussion they again award marks out

of a small maximum which is available with them. These are called the Conference marks. The maximum conference marks with the President are 50 and with each of the other two members 25. No single member is in a position to influence the judgment of the other member, except by fair discussion, and that too, to a very limited extent. The initial and conference marks of the candidate are added to obtain the total score of the candidate in personality qualities. It will be noticed that each member of the Board is completely independent in awarding marks. He is not under pressure of any other member and consequently is free to express his estimation of the candidate's personality in terms of marks which he considers correct. Unless a candidate can win over all the three members of the Board and unless all the three members are at that moment in such a weak frame of mind that they are willing to overthrow all sense of duty and responsibility there is very little danger of any unfairness being practised.

Further, the Boards are under the administrative control of the Director of Selection of Personnel who keeps a very watchful eye on their working. Then there is the Psychological Research Wing of the Defence Science Organisation which is a purely scientific body and stands to the Selection Board in the relation of *Guru* and *Chela*. They can draw the attention of the Director of Selection of Personnel to any lapse of standards observed by them and may also, at the time of their visit to the Boards, tactfully express a fatherly disapproval of their undesirable activities. There is also the Union Public Service Commission which has a hand in the selection of the candidates. Although they conduct only the examination in academic subjects, they feel that they are responsible for the fairness of selection as they are associated with it. They are very vigilant and want to ensure that nothing irregular happens. In fact, very soon they will be sending their observers to the Boards at the time of testing of the candidates for qualities of personality. And finally there is the Ministry of Defence which keeps a careful watch on the whole method. It will be noticed, therefore, that there are so many agencies connected with the selection procedure that the chances of any irregularities being practised unnoticed are very small. The number of checks under which the system works ensure the greatest measure of fairness that is possible in human affairs.

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