

AN INVESTIGATION INTO
THE DETERMINANTS OF TEMPERAMENT

by

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A Thesis Submitted to the

Faculty of Science

of the

University of the Witwatersrand

In Fulfilment of the Requirements for the Degree of

Doctor of Philosophy

September, 1949.



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CHAPTER I

INTRODUCTION

- (a) The need for personality diagnosis in vocational guidance.
- (b) Brief description of some generally used techniques for personality diagnosis.
- (c) Statement of the aim of this investigation.

One of the most wide-spread applications of the science of psychology lies in scientific attempts to ensure that individuals are suited for and adjusted to the occupations from which they derive their living and to which they will probably devote the greater portion of their waking hours. It is clear that this adjustment is essential if the individual is to achieve any measure of happiness. In its widest sense this adjustment calls for a secure and satisfying home environment, thorough and relevant scholastic training, the wise selection of an occupation and eventual employment in the chosen occupation.

A great deal of energy has been devoted towards the attainment of this ideal, it has enjoyed steadily increasing interest and attention until in recent years it has come to be regarded almost as a truism. Vocational Guidance Counsellors are being appointed as permanent members of the school staff, Industry is making wide-spread use of the services of Personnel Managers, and Occupational Information and Placement Officers are coming into their own. Concomitant with the general acceptance of the importance of the work done by these people is the necessity that they be equipped with adequate knowledge and trustworthy tools for the performance of their duties.

One of the oldest and perhaps still the most important single instrument available to these workers is the intelligence test. Tests similar to those devised by Alfred Binet, which use a wide variety of tasks designed to distinguish between bright and dull persons, are still used today, and their application has been extended to differentiate between individuals in the normal range of intelligence. During the past fifty years there has also been

an active growth in the design of mental tests for use with groups. These are usually easier to administer, require less time and were given considerable impetus by the use of the United States Army mental tests for approximately one and three-quarter million soldiers during 1917 and 1918, and the subsequent research on occupational group norms. For further ease in administration, group tests of intelligence were devised which did not require the timing of individual items.

Current trends are away from this spiral omnibus type of test, of which the Otis Self-Administering Test would be an example, whose single score is based on items which cover a wide selection of tasks and abilities, toward tests which give a profile of scores in specific abilities. L. L. Thurstone's Primary Mental Ability Tests are an excellent example of these. From here it is an easy step to tests of special abilities and technical knowledge. These may be either pencil and paper or performance tests and are usually validated against trade school results or foremen's ratings. On the whole the usefulness of these tests in vocational guidance has been established and they are generally applied.

Unfortunately the development of instruments to aid in the diagnosis of the personality of the individual or to determine his emotional stability has not followed this clear-cut pattern. Here we are dealing with concepts open to a wide variety of interpretations and in a sphere where validation of the instruments used presents considerable difficulty. Yet no intelligence or skill assessments which are to be used as an aid in any form of guidance should be studied in vacuo as it were, but should be seen in the light of the personality make-up of the individual if they are to be of maximum value. Factors of temperament and personality make-up cut right across intelligence and skill as determinants of aptitude. Borderline skill in an occupation can be compensated for in a great measure by keenness and perseverance. On the other hand intellectual ability and skill can be largely offset by a lack of interest, a lack of a sense of responsibility or other negative personality traits.

Yet another consideration is the fact that a large number of workers are employed in routine jobs in industry in which there are virtually no qualifications regarding specialised skills and intelligence, unless it be the negative one that they are lacking in both, but where the personality make-up is of considerable importance. One example of this would be certain types of table hands in the Garment Industry who comprise about 25 per cent of the labour force in that industry. For some of these workers their job consists solely of snipping off odd pieces of thread left by the machinists or of attaching buttons in marked positions. Ability and intelligence are a hindrance here as they lead to boredom and frustration, but since these workers generally sit together in a large group, singing or chatting as they work, it is very important that the individual be able to work in the company of others, that he should enjoy joining in general conversation and that he should be able to "get on" with a group. A lack of these characteristics will result in ostracism and petty discriminations being practiced against him by the group, with consequent unhappiness.

In all occupations in which the worker is dealing with a group of other workers or with the general public, special personality attributes will be called for. Thus success as a travelling salesman calls for a preference for change rather than routine, persuasiveness or an ability to show enthusiasm and to engender enthusiasm in others and the ability to establish rapport with a prospective client. The selection of workers in authority should be done with great care. A foreman, besides being proficient at the job in hand, should engender a feeling of confidence in those under him. He should be neither weak and vacillating nor harsh and overbearing in relations with his subordinates. A few badly chosen foremen prone to showing favouritism in some instances and to bullying and unfair treatment in others will ruin the morale of the entire labour force under their jurisdiction.

In recent years increased attention has been paid to the problem of accident prevention in industry, in the home and in the three transport systems - road, rail and air. It has been demon-

strated by investigators¹ that accidents are not normally distributed throughout the population, but that a small percentage of people have repeated accidents and account for a large percentage of the total accidents incurred. The term "accident-prone" was first used by Eric Farmer and has come to be associated with a particular temperament and personality make-up. In her book Psychosomatic Diagnosis Flanders Dunbar gives an excellent description of the behaviour attributes which characterise accident-prone individuals and designates these as the "group profile". She states that eighty per cent of the patients in each disease group studied (of which accident cases was one) conform to the relevant profiles.² An obvious application of personality diagnosis is therefore to ensure that accident-prone individuals are not entrusted with occupations where a slip-up would endanger their lives and the lives of others.

Accidents and sickness both contribute to the wider problem of high absentee and labour turn-over rates, which are symptoms of maladjustment in a labour force. In a study of certified sickness absence among women in industry instituted by the Industrial Health Research Board in Great Britain it is stated that sickness absence is usually responsible for one-half to two-thirds of the total time lost.³ Furthermore, in the group of workers studied, which comprised 4,542 women in munition factories during the last six months of 1942, it was found that 16.3 per cent of the women were responsible for approximately two-thirds of the total time lost through sickness.⁴ One might dismiss these absences as being unavoidable and due to purely physical factors but an analysis of the average number of days of sickness per worker for the different disease groups negates this argument. Diseases like respiratory, digestive and "nervous" headed the list. In addition, amongst workers discharged as medically unfit, "nerves" and "fatigue" were by far the

1 Collier, H. E. (3) p. 184
Farmer, Eric (5) p. 35

2 Dunbar, Flanders (4) p. 163

3 Wyatt, S. (26) p. 4

4 Ibid., p. 14

most frequent cause of discharge, especially among married women. "Most of the cases in this group were diagnosed as 'nervous debility' but 'nervous breakdown', 'neurasthenia' and 'general debility' were also fairly common."¹ It is well known that diseases of this sort and upsets of the bowels and stomach often result from periods of protracted strain and fear which are the byproducts of maladjustment.

The practical applications of personality diagnosis in the sphere of vocational guidance are readily demonstrated and generally accepted, their implementation considerably more difficult. There are no objective methods of personality diagnosis which enjoy the degree of acceptance or prestige held by some of the better known tests of mental ability and specific skills. The requirements of personality diagnosis in vocational adjustment will in the first instance be that it allow of a differentiation between those individuals who under ordinary circumstances can be expected to make an adequate vocational adjustment and those who will require sheltered occupations and the benefit of psychiatric treatment. In the second instance it should furnish a description of the significant behaviour characteristics of the individual, which when considered with his skills and abilities, will aid in his placement.

The more generally used techniques for these purposes fall into five groups. The oldest and perhaps still most widely used is the personal interview. A more standardised procedure is the observation, by trained personnel, of behaviour in specific situations and consequent rating of behaviour according to a given rating scale. A variation of this method is to ask the subject to rate his own behaviour according to some scale or to fill in a behaviour questionnaire. Attempts have been made to construct objective performance tests for the purpose of measuring behaviour characteristics directly. Finally there are the projective techniques which enable a subject to project himself into a planned situation, and his method of attacking the task, and the way in which he identifies himself with the mate-

¹ Ibid., p. 16

rial presented, reflect his inner personal life. The most systematically developed of these is Rorschach's Ink Blot Test and H. A. Murray's Thematic Apperception Test (T.A.T.). The theory underlying both tests is that in order to make responses to relatively unstructured stimuli the subject inevitably draws on his own life experience and usual modes of reaction. Thus the test aims at giving a cross section of the personality structure and also an insight into the dynamics which have helped to fashion it.

It is not the object of this treatise to compare the merits of these different approaches to the problem. A general comparison of these techniques is of doubtful value since their efficacy depends on so many specific circumstances such as the skill of the interviewer, the person rating the behaviour and of the interpreter of the projective test. The objective test's efficiency is indicated by its specific validity coefficient, and the usefulness of the behaviour inventory is affected by such factors as whether its construction allows of excessive falsification of data and the motivation of the subject.

There are certain criteria, however, to which all these approaches must conform, such as the demonstration of adequate reliability and validity of their measures and some must strive for greater objectivity so that the validity coefficient will be at least relatively unaffected by the skill of the particular investigator. Furthermore, if they are not to be used only for clinical purposes where the hourly contacts with the therapist may stretch over days, weeks or months but will be used in the handling of a relatively large number of people in a specified time, they must conform to certain practical considerations. Amongst these will be time and ease of administration and time of scoring. Thus the interviewer can be supplied with specified information about the subject before the interview, which will obviate a lot of routine questioning; material of doubtful validity and "padding" questions might be removed from rating scales and questionnaires and the Rorschach and T.A.T. could be adapted for group presentation by the use of slides. R. L. Munroe's check list of about twenty-five items can be applied to the group

Rorschach which greatly facilitates scoring. This list was devised in an attempt to obtain an estimate of the over-all adjustment level and shows evidence of validity.¹ Shortening the test procedures in this way will lead to the loss of detailed information and may defeat its own purpose. There is no absolute time limit and these administrative details must be determined by the objectives to be achieved. The best that can be said is that as much time as possible should be devoted to each individual.

What is of fundamental importance in personality diagnosis, regardless of the method of approach that is used, is the theoretical background against which the measures are made. If they are regarded as isolated units and are not seen in the light of an integrated theory of personality they will be of restricted value. The measures should be significant and meaningful within the framework of the personality structure. They should serve the psychologist as land-beacons serve the surveyor when describing a tract of land, or as a specific set of basic body measurements serve the designer in his construction of a garment.

To some, personality structure and individual measurements appear to be mutually exclusive concepts, yet it would seem difficult to adequately describe or even formulate "dynamic whole processes" if one is not aware of the component parts. Murphy states his views on this question as follows: "However it arises, structure expresses itself through measurements, no matter how much the experimenter may wish to avoid this. The impression has got abroad that there is an antithesis between personality measurement and an approach in terms of structure. Yet measurement supports rather than negates the emphasis upon wholeness. When concerned with structure, we wish, of course, to observe structural relations long and carefully before we attempt to decide what is to be measured, and in what way."² He continues with the warning that often those who love to measure and analyse are seldom interested in specifying

1 Murphy, Gardner (17) p. 681

2 *Ibid.*, p. 668

the mode of articulation between traits and that " mostly the measurers get stuck in measuring -- and the structuralists are too enamored of relationships to bother with precise measurements, however quantitative their statements may be implicitly."¹

This treatise is devoted to the search for meaningful and measurable behaviour characteristics, and a study of their inter-relationships in patterns of behaviour. To this end a survey is made of some current theories of personality, and some of the variables measured by current behaviour inventories are investigated. Finally, the theories and procedures relating to personality diagnosis in the National Institute for Personnel Research in South Africa are discussed and evaluated in the light of this information.

¹ Murphy, loc. cit.

CHAPTER II

SURVEY OF SOME THEORIES OF PERSONALITY.

- (a) The Psychoanalytic Approach to Theories of Personality
- (b) The Physiological Approach to Theories of Personality
- (c) The Wholistic Approach to Theories of Personality
- (d) The Cross-sectional Approach to Theories of Personality

To trace the development of theories of personality through mysticism and pure philosophy to present-day formulations which strive toward logical coherence allied with experimental proof, would be an undertaking which could hardly be encompassed within a single volume and certainly not within a single chapter. Furthermore, investigations in this domain have not led to one inclusive formulation or set of principles governing human behaviour which is unanimously accepted in current psychological theory. Some quite diverse theories make their bid for acceptance and have their followers, so that even if the task were limited to a survey of current theories of personality, it would be beyond the scope of this investigation.

Nevertheless, it is considered important that the individual investigator make an attempt to place and describe his area of investigation in relation to investigations which have preceded his, and which cover other areas of the general domain in which he is interested. Only in this way can he hope to see his work in proper perspective. For this reason this chapter is devoted to the description of some theories of personality and methods of personality diagnosis, each of which has a measure of acceptance in current psychological thought and, it is considered, has a contribution to make in this field of research. These have been divided into four groups according to the approach to the problem: Firstly, the psychoanalytic approach, where the emphasis is on the motivation of unconscious urges, secondly, the physiological approach where the emphasis is on constitutional or physiological factors as the determinants of behaviour. Then there is the wholistic approach to

theories of personality where attempts are made to study the behaviour of a "total interacting organism" and finally, what has been designated the cross-sectional approach, where the emphasis is on innately determined, or at least relatively permanent, behaviour traits.

The Psychoanalytic Approach to Theories of Personality.

At the turn of the century, at approximately the same time as Binet was studying the "higher mental processes" psychoanalysis was born in Vienna. Its originator was Sigmund Freud and in the early years of its conception both psychoanalysis and its originator were ridiculed and strenuously opposed. Gradually some of the tenets underlying psychoanalysis gained acceptance and now their contribution towards the understanding of psychic life is incorporated in general psychological theory.

Freud and Joseph Breuer in their treatment of hysterical patients came to the conclusion that the bizarre physical symptoms had meaning and purpose in the psychic life of the patient. In his work under Janet and Charcot he witnessed the disappearance of hysterical symptoms under hypnosis. Janet suggested a subconscious origin for these symptoms but made no deeper search for an explanation of the behaviour. To Freud goes the credit for the idea of motivated unconscious behaviour. In support of this idea he showed the unconscious motives in slips of the tongue, in the latent as opposed to the manifest dream content and in symptomatic actions.

As a result of his clinical experience with the transference neuroses he brought forward the concepts of the id, ego and super-ego. The id is completely unconscious, and is the source of instinctive energy for the individual, it expresses the basic and primitive, and is the initial nucleus of psychic life. It has no unity of purpose and conforms only to the "pleasure principle". The ego is not sharply differentiated from the id and develops out of it. Part of the ego is conscious and part unconscious. It develops under the influence of necessity, it learns to forego immediate satisfaction and even to renounce certain sources of

pleasure. "Thus trained, the ego becomes 'reasonable', is no longer controlled by the pleasure-principle, but follows the REALITY-PRINCIPLE, which at bottom also seeks pleasure - although a delayed and diminished pleasure, one which is assured by its realization of fact, its relation to reality."¹ The super-ego is an outgrowth of the ego, it is to a great extent unconscious, but has also preconscious and conscious areas. It is a critical faculty not unlike conscience and derives its standards from the parents (especially through the oedipus complex), teachers and the prohibitions of other authorities. It compares the behaviour of the ego with the ego-ideal which the individual has created. The ego-ideal is not unlike the "concept of self" which is integral to the wholistic theories of personality which will be discussed later.

In a critical analysis of Freudian psychology Jastrow suggests that the concepts inherent in the unconscious id urges and the socialised responses of the ego may be described in general phraseology in terms of Primary and Secondary Function respectively. He summarises them as follows:- "Reflexes and glandular stresses and organic sensations and fixed coordinations, innate aptitudes and instinctive urges and the dispositions, inhibitions, the level of infant life and simpler animal structures and early cultural stages, are all representative of the primary function, either wholly or dominantly. Distinction, habit, direction, reflection, matured emotions, sentiments, tastes, skills, proficiencies, controls, withdrawals, anxiety, opinions, beliefs, ideals, standards, scruples, principles, reflections generally, are secondary function, wholly or predominantly; and in the interplay psychology finds its problems, and life its perplexities."² Here Primary Function represents the basic unsocialised urges, Secondary Function reactions as modified by experience. With regard to the terms Primary and Secondary Function, Jastrow explains that they were used freely by Jung who

1 Freud, Sigmund (7) p. 312

2 Jastrow, Joseph (13) p. 165

borrowed then from Otto Gross.¹ Gross, Heymans and Wiersma when investigating the threshold for flicker as a possible measure of perseveration were the first to suggest that fusion occurred when, through the rapid alternation of two stimuli, the actual impulse of the one coincided with the after-effect of the other.² This after-effect they called cerebral secondary function and they considered that it was associated with general behavioural perseveration. The Heymans-Wiersma variables are discussed in the following chapter.

Freud states that his purpose was not merely to classify and describe mental phenomena but to attain a dynamic conception of mental processes. He designates the source of life energy as libido. It is the force by means of which the instinct, in this case the sexual instinct, achieves expression. During the development of the individual the libido finds its satisfaction in successive auto-erotic zones. In infancy the oral-erotic zone is dominant, in early childhood the anal-erotic, in later childhood there is a latency period and finally, after the age of puberty, the instinct is concentrated in the genital zone. At puberty the libido must seek its satisfactions in heterosexual relationships and not in the individual's own body, the son must free himself from his attachment to his mother and the daughter from her attachment to the father. The development of the libido must be normal if neuroticism is to be avoided.

The libido is conceived as current flowing forward, and one danger in its development is that it will be arrested at early stages of satisfaction so that the whole stream cannot move forward to the next stage of development. This is designated as fixation of the impulse. Another danger is that those portions of the libidinal stream which have proceeded further may encounter external obstacles which cause them to revert to earlier stages of development, this is known as regression.

As a result of his theoretical considerations Freud postulated various mechanisms which have proved to be useful in the explanation of certain types of behaviour. Repression is a psycho-

1 Jastrow, loc. cit.

2 Biesheuvel, S. (21) p. 27

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Name of thesis An Investigation Into The Determinants Of Temperament. 1987

PUBLISHER:

University of the Witwatersrand, Johannesburg

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