

TESTS FOR THE STUDY OF AFRICAN PERSONALITY DEVELOPMENT

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by

S. Biesheuvel
National Institute for Personnel Research,
South Africa.

1. Personality tests are amongst the least satisfactory of psychological measuring devices. This is partly the result of lack of agreement concerning the dimensions of personality, partly of the highly subjective element in the performance of most tests and in the interpretation of test results.
2. In the study of African subjects, the difficulty of personality testing is greatly increased by the problem of establishing rapport, by the attitudes adopted by testees towards testing, and by our scant knowledge concerning the structure and organisation of personalities in African cultures. It must therefore be accepted at the outset that few tests exist to-day which can be used with confidence to predict the personality aspects of the behaviour of Africans generally in educational, occupational or clinical situations. Those that are available have only been tried out in particular cultural groups, and for restricted purposes and they will as a rule be more useful for analytic and experimental, than for diagnostic or predictive purposes. In fact, we should acknowledge that African personality testing is still very much in a research stage and we should attempt to define the major problems towards which this research should be directed.
3. In the first place it will be necessary to make a systematic study of the constitutional aspects of personality. Individual differences within traditional cultures are largely influenced by constitution and racial differences, if any, could only exist at this level. Psychophysiological tests and objective psychomotor and perceptual tests offer the most promising prospects.
 - 3.1. Among the former the electroencephalogram in particular has provided fruitful results. In the N.I.P.R., Dr. A.C. Mundy-Castle and his co-workers are studying the EEG as a manifestation of level of cerebral arousal. Thus they have found that alpha frequency is related to flexibility of behaviour, or more generally to the Primary-Secondary Function temperament variable. Alpha amplitude and alpha index are associated with level of alertness and thus with activity level, which in turn relates to capacity for sustained effort. Mundy-Castle has found no major differences in the EEG of representative Black and White groups insofar as frequency spectrum and proportion of abnormalities is concerned; but detailed comparative studies of

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level of cerebral activation have still to be made. This group has, however, demonstrated that the EEG is susceptible to a number of environmental influences. They have shown in particular that kwashiorkor can adversely affect the cerebral maturation level, which behaviorally can give rise to emotional immaturity such as is found in psychopathic personalities. A high proportion of unilateral focal disturbances in the temporal lobe, suspected to be the area of highest cerebral integration, has also been found in kwashiorkor patients. These findings are clearly significant for African personality development, in view of the extent to which Africans are exposed to deficiency diseases and other influences that may have an adverse effect on neurological development.

(A.C. Mundy-Castle "An Appraisal of Electroencephalography in relation to Psychology". J. Nat. Inst. Personnel Res. Monograph Suppl. No. 2, 1958.
G.K. Nelson "The Electroencephalogram in Kwashiorkor" EEG Clin. Neurophysiol, 11, 1, '59)

- 3.2. The psychogalvanic reflex (PGR) is another phenomenon that merits investigation, not as a measure of emotionality but as an index of level of arousal. Alpha frequency has been found to be associated with PGR adaptation rate and high conductance is one of the best indicators of alertness. As might be expected, it is negatively associated with alpha amplitude.

(Mundy-Castle and McKiever, "The Psychophysiological significance of the Galvanic Skin Response". J. Exp. Psychol. 46, 1, '53; R.G. Stennet, "The relationship of Alpha Amplitude to level of palmar conductance". EEG Clin. Neurophysiol. 9, '57)

- 3.3. The temperamental implications of visual perception have frequently been pointed out. Perceptual tests offer a rich field for experimental personality research and for the development of objective tests. The field is too extensive to be surveyed here, but it is thought that tests of speed of vision, various aspects of closure, posture in relation to visual perception, size constancy, visual illusion, eidetic imagery, may produce significant results concerning neurological determinants, their interaction with cultural factors and the integration of the self. An example of how an essentially visual test may be made to yield important information on a temperamental difference between black and white groups in relation to tempo of behaviour is provided by a study of Ombredane, Bertelson and Beniest-Noirot (J. Soc. Psychol. 47, 2, '58)

- 3.4. The temperamental components in individual differences as measured by means of intelligence tests have lately also received attention. Mundy-Castle, for example, recently found a temperamental component in Wechsler Intelligence Test Scores, which he related to a central excitability factor ("Electrophysiological correlates of Intelligence". J. Personality, 26, 2, '58). This work is still in a tentative state, but it is of

particular importance in view of the differences in intelligence-test performance that have been observed between ethnic groups and that may be partly of a temperamental as well as of a cultural origin. Once again the virtue of this approach is its objectivity, though elaborate techniques may have to be used to separate the temperamental and cognitive variables.

- 3.5. Important research is being done at the N.I.P.R. concerning capacity for sustained effort. This is a complex aspect of behaviour, in which motivation, physical work capacity as well as temperamental factors play a part. In collaboration with applied physiologists methods are being developed to separate the physical from the motivational aspects in manual labour. Whether the latter can be further broken up to distinguish between temperamental and social components it is not yet possible to say.
- 3.6. In the sphere of routine mental work, the Pauli Continuous Addition Test has been found a useful instrument for the study of temperamental determinants. (Reuning, H. "The Pauli Test: New findings from Factor Analysis". Reuning and Shoul. "Speed and Variability Components in Pauli Test, CFF and Alpha Rhythm". J. Nat. Inst. Personnel Res. 7, 1, 1957. Reuning, "Pauli Test Profiles of a Group of Medical Students in relation to their I.Q.s and First Year University results". Proc. S.A. Psychol. Assoc. No. 7/8, '56/'57.) A characteristic work curve results from this test, some of the parameters of which have already been related to temperament information from entirely different sources (in particular the EEG). Relationships have also been established with success in academic training and in training for the skilled trades. The Pauli test cannot, however, be applied to illiterate subjects. Experiments have been conducted on a modified version suitable for illiterates, but so far these experiments have not yet met with success.
- 3.7. Another line of investigation bearing on the temperamental aspects of rigidity and lability is provided by work at the N.I.P.R. on the Hector Seven Squares Test. This simple test involves the arrangement of seven squares of different sizes to form a pattern pleasing to the subject, or a picture representing some object or idea. This test has already been applied to Africans at various educational stages, to Bushmen and also to a representative sample of Japanese. (see two papers by Hector and Hudson, and Ichimura in J. Nat. Inst. Personnel Res. 7, 3, '59).
4. Developmental tests are generally used to study the growth of the intellectual, rather than the personality component in behaviour. It is possible, however, to find objective items for developmental schedules which reflect the growth of social responses and which thus have a bearing on personality.. The N.I.P.R. developmental schedules for African children are being drawn up with this end in view, but so far, only those

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for the first year of life are available. Longitudinal studies of this kind are of considerable value if conducted under controlled environmental conditions, in order that the effect of these conditions on personality development may be studied.

5. When we come to the study of the organisation and adjustment of the personality, where we must rely on the subjective report of respondents, testing difficulties become very considerable. One is not confident that at the present stage, devices such as the M.M.P.I., Bernreuter, Bell Adjustment Inventory and the like give useful results. Linguistic difficulties in conveying certain abstract concepts, the problem of establishing rapport, literacy difficulties, the Western cultural associations of items, the problem of controlling attitudes, all contra-indicate this approach until much more is known about African personality structure, organisation and content.
6. Projective techniques have been used with advantage, including the Rorschach, Rosenzweig, Loewenfeld World Game, Incomplete Sentences and Thematic Apperception Tests. Of these, the latter two, because of their flexibility are the most promising. A number of African versions of the T.A.T. are now available, notable those of Ombredane, E. Sherwood and S. Lee. Other series have been constructed, less for the purpose of analysis in depth than to assess personality attributes related to specific situations (e.g. occupational motivation, accidents). The Putco T.A.T. (de Ridder) and the N.I.P.R. Six Picture Test (R. Sherwood) are good examples. All these tests are usable at this stage, but interpretation remains a highly individual affair, as we cannot as yet be definite concerning the personality variables measured by these tests in African cultures. A more critical approach is needed concerning the concepts in terms of which responses are analysed, which are too often transferred without question from a Western to an African cultural context. Much work still needs to be done to determine the appropriate content and structuring of pictures. Research at the N.I.P.R. on this purely perceptual aspect has already produced significant results. (See also E. Sherwood, *J. Soc. Psychol.* 45, '57 and Maria Leplanc "La Problematique d'adaptation du T.A.T. au Congo, "Zaire" *Revue Congolaise*, XII - 4 - '58).
7. Methodology concerning the use of attitude tests and the various techniques available in this field have been set out in detail by the writer elsewhere. (*J. Soc. Psychol.* 47, 2, '58) Attention must be drawn in particular to the combination of a directed interview and group discussion for the assessment of occupational attitudes and to a "conversations" attitude inventory to assess knowledge of and attitude towards Western customs, values and legal concepts. (See Biesheuvel, *J. Nat. Inst. Personnel Res.* 6, 1, '55 and 7, 3, '59). These two techniques apply to both literate and illiterate groups. In general, the use of attitude scales and inventories will have to be governed by the possibility of stating content and question in a manner appropriate to the culture and by obtaining unqualified cooperation. The use of trained African testers is virtually a sine qua non

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8. Social interaction tests have proved useful as a means of assessing interpersonal relations, aggressive or submissive tendencies, reactions to social stress and leadership capacity. The Leaderless Group Test has been extensively used in South Africa to assess supervisory ability in first line supervisors. (W. Hudson and C.F. Kruger, I.L.I. Bulletin, 1, 1958). African subjects respond particularly well to this type of test, which has proved its value for personnel selection, although it cannot be expected to throw much light on the inner structure of personality. Other forms of social interaction test, such as the Sociometric Test, and the Assigned Leadership Test are likely to be equally useful, though at a more sophisticated level.
9. An interesting objective device capable of throwing light on as subjective a matter as race-attitudes, is the binocular resolution test, first used by Engel (Amer. J. Psychol., 69, '56) and Bagby (J. Abnorm. Soc. Psychol. 54, '57) and lately by Pettigrew and Allport (B.J. Psychol. 49, 4, '58) to study perception of race in South Africa. It involves the presentation of full-face photographs of individuals belonging to different racial groups through a stereoscope, producing either fusion or binocular rivalry in which one or other of two distinct pictures is suppressed. Members of different ethnic groups were found to vary in their racial identification of each other, and these differences could be related to cultural memberships, expectancies and subjective attitudes.
10. Despite its subjectivity, the interview will remain an essential device for diagnostic, predictive and research purposes. Such interviews will have to probe deeply, will have to be conducted directly, without interpreters, in the language with which the subject is most familiar and will depend for their validity on the cultural knowledge and psychological insight of the questioner. Interview data will in many instances be the only material against which the results from certain tests, particularly the projective tests of personality organisation, can be validated.

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