

Influence of Cultural Background on Test Performance

.....
WILLIAM STEPHENSON
.....

BY CULTURAL BACKGROUND, however defined, one refers to historically-rooted matters. A white-collared Eton scholar and a back-street Brooklyn boy appear to be distinguishable, and yet also indistinguishable, in terms of their cultural backgrounds. Their sentiments, habits, attitudes, and affections may well be very different. Yet both speak English, and both live with a common heritage of law, religion, customs, and much else besides. They are educated differently, yet the ideals of Ancient Greek and Renaissance Educators penetrate into the schools of both. In comparison with a Hindu, however, or a sedate Chinese boy for whom Taoism was a background until Communism burst in upon him, Europeans seem culturally different. And still more diverse must be the culture in and against which the native African child lives, or an Eskimo.

It has been difficult, however, if not impossible, to formulate concrete and operational postulates about such cultural agglomerations. It is permissible, perhaps, to distinguish between (a) educational influences, (b) socio-dynamic situations, and (c) the vague, historically determined culture patterns which, when evaluated, we grace

with the name of heritage, and with which we are heré to be concerned.

One might have thought that "culture" psychologists, whose very problem was to interpret these latter historical trends along the lines laid down by their mentor, Dilthey (1), would have provided something for us to bite upon, scientifically, by now. True, they produced an Oswald Spengler, with his notable *Decline of the West*, but I know of no testable hypotheses that reach into Spengler's Mayan, Babylonian, Graeco-Roman, or any other "civilizations." Yet interesting matters are at issue. We know that the ancient Athenians, after the Persian Wars, created the European mind out of a mere handful of human beings and a few square miles of territory; and our own Elizabethan Golden Age, after a hundred years of war, was born almost within sight of London. Moreover, whereas the Greeks and the Elizabethans called for the richest development of a man's *general* ability, the current trend is rather to foster the trickling specialties and presumed aptitudes of our young. So that perhaps culture determines very largely *what* abilities we shall value and develop, rather than anything else at issue. There are strong

suspicious that this is the case, as sociologists such as Mannheim, for example (2), have already suggested.

Up to very recently, however, testing, such as we are to consider, has hinged upon a *null* hypothesis. This is to the effect that cultural differences have little or no effect upon some really important dimensions of human personality. It is implied that there may be only a few such dimensions, perhaps only one, or two. We find the hypothesis almost unexpectedly, wherever we turn; at bottom it represents a belief that there must be general laws of personality which transcend cultures—and by laws I mean theories, or synthetic propositions as Kaufmann and many modern philosophers would call them (3), which serve as models or growing points for hypotheses that can be put to experimental test. This null hypothesis lies behind the search for so-called “culture-free” intelligence tests: and indeed it would surely be imposing, if not important, if it could be shown that individuals drawn from widely different contemporary cultures, such as our English, African, American and Chinese boys, are alike in certain important essentials.

If this null hypothesis has finally to be rejected, we may still wonder whether there are on record any clear instances where important personality features have been shown to have for the main part a cultural determination. The possibilities of any essential *interactional* standpoint, however, can perhaps be discounted; for it scarcely seems reasonable to suppose that there can be much interaction between an

ordinary person and his cultural milieu, such that each influences the other and everything is relative to everything else. For the individual is surely a puny speck against his cultural background. Exceptions to this, of course, are the great men and women of culture, a Plato, Aristotle, Buddha, or the like.

What have test performances, then, to say about these various matters? We should put aside, I think, any consideration of studies relating to heredity, or to the influence of socioeconomic levels upon test performance, since these, except as controls, are scarcely pertinent to the questions at issue concerning culture.

Consider the null hypothesis first. One may begin by wondering whether a Kinsey Report for widely diverse national and cultural groups would read very differently in essentials from the American. Or, if we distinguish between *thinking* and *intelligence*, as Bartlett would have us do, interesting findings such as those of Carmichael (4) come to light. Using a verbal-projective test consisting of unfinished newspaper editorials on controversial topics, Carmichael showed that Cambridge graduates and English working-class men and women, all alike, intelligent and unintelligent, argued illogically, rationalized quite naively, projected and generally played havoc with anything that resembles the orderly procedures of an intelligence test. Would not the same apply the world over? Or consider another example. Thematic Apperception tests may well mirror the immediate behavioral stresses, strains,

and preoccupations of different individuals, and to this extent very obvious social and perhaps culturally-determined differences may be brought to light. But if Sam has trouble with his wives, past and present, and Alexandrovic with his party affiliations, and Nagawooli with his goat—who is interested in these matters as such? One may interpret the results, of course, perhaps psychoanalytically, and so point to basic affinities of a dynamic kind underlying all these preoccupations. It may be shown in this way, for example, that children in slum areas appear to have far severer superegos than children from better-to-do homes (5). But the psychoanalyst might well demur about such an apparent result, pointing out that only superficial indications of psychoanalytical dynamics are tapped by such tests, and that greater penetration might, rather, show everyone, of all cultures, alike in essentials: thus, the psychoanalyst, too, becomes involved in a null hypothesis for his fundamental postulates.

Along systematic lines, however, the best example I can offer is from work in the Spearman School. This began with a distinction (made on theoretical grounds which were rooted in late English Associationism) between *noetic* and *anoetic* processes. The former was represented formally by Spearman's *g*-factor, and the latter by all manner of specifics and group factors within the cognitive field of study.¹

¹ It is one of the sad consequences of a purely inductive approach to factor work that Burt, Thurstone, and most text-books,

Line next showed that "visual perception" in children paralleled their mental growth, that is, their mental age (against which, of course the Binet tests had been validated originally). Stephenson (6), and Brown and Stephenson (7) followed by indicating that tests of this same visual perceptual material could be regarded as "pure" tests of Spearman *g*-factor, with these noetic implications. Finally, Fortes (8), who turned from the London group to become an anthropologist, found that African natives performed this kind of perceptual test quite as satisfactorily as whites. Fortes, however, was careful to do what others rarely achieve in test construction: he randomized the varieties and styles of perceptual material by selecting it from every known culture, past and present.²

Now I make no claim that this se-
refer to the Spearman Theory of Two Factors without reference to the experiential matters and psychological theory that the factor theorems merely echoed, or paralleled as models. Thus, Spearman merely wished to deny the proposition that group factors could be found in the *noetic* field; he knew full well that they abounded in the *anoetic*.

² Stuart Dodd (9) attempted something of this kind for pictures of common objects and situations, for his so-called international test of intelligence. But the materials and problems were rooted in *anoetic* processes, and the test showed greater rather than less differences between racial groups. Similarly the styles of the fundamentals used in the Penrose-Raven matrices (10), and in Cattell's (11) "culture-free" test, or Penrose's new perceptual test, are severely European and geometrical in form, and to this extent would be suspect wherever the null hypothesis *wasn't* supported. They would be suspect for other reasons, too, but I must leave this to one side for the present.

quence of events and its outcome was other than tentative: it lacked the resources for test construction and standardization that America now affords, or that the Educational Testing Service so elegantly devotes to its tests. But its theoretical implications were clear, and obviously it was orientated towards this null hypothesis. Moreover, I propose not to enter into the appraisal of such results as we have available about "culture-free" or any other tests involving us in this null hypothesis: there is some evidence, such as that of Fortes, supporting the hypothesis for perceptual data, and much purporting to reject it. In the latter cases, however, so little has been done, usually, to randomize materials, or to take account of other controllable factors, that the evidence is at least dubious. I can only suspect that Fortes and the Spearman School were at least on the right lines to handle mainly visual perceptual material for some kind of crucial test of the null hypothesis.

But now let us consider the other proposition, that culture has a decided, even a decisive, effect on human personality. For most of us this may seem completely obvious. It is surely easy enough to bring different national attitudes to light, as Cantril (12) is perhaps doing. Here I would like to be pardoned for using my own experimental observations, since I believe that they are methodologically more at the heart of what is involved.

I begin with the knowledge that it is the *type* psychologists, the Sprangers and the Jungs, and sociologists such as

Mannheim (2) and Fromm (13) in recent years, who stress the influence of cultural background on present personality. But it appears that no self-respecting psychometrist, except myself, believes any more in *types*, except as cuts across a normal distribution, made for convenience—much as we cut up the I.Q. scale into moron, feeble-mind, normal, and genius. Even so, I would ask you to re-open the whole matter of types, or at least to keep an open mind about it for the next few years, for I believe the psychometrists have been barking up quite the wrong tree. Matters look very different if one approaches types from a Q-technique standpoint (14).

It is a simple matter, for example, to show that more men in the United States are likely to be of a type X, that we might call "extrovert," than of a type Y, that we might call "introvert." The opposite is the case for women. But the main types can be demonstrated for any small number of persons, for example for any ten of you in this room, without operational reference to any other persons in or out of the room. Indeed we can say something about the matter for only *one* person if need be: thus, given a "population" of 200 traits chosen at random from a Jungian universe of such traits (I have 2,000 traits in such a universe), I might invite the *one* person (a) to appraise himself with the traits, (b) then, having done this, to give an account of what he believes an ideal introvert to be, and (c) finally to give an account of what he believes an ideal extrovert to be. The correlations

between (a), (b), and (c) for $N=200$ traits, will indicate whether our one person (if he is sophisticated like ourselves or college students) is of introverted or extroverted type.³

But for the moment we need only examine the implications of such Q-technique findings, and its approach, for our preoccupation with culture. Suppose that, in terms of Q-technique, types are now demonstrable (as indeed they are). In the case of Introversion-Extroversion such types were rooted, for Jung (15), almost wholly in cultural background. Jung traced the matter back into pre-Christian history; into the disputes and castigations of a Tertullian and an Origen of some eighteen centuries ago; into Schiller's idealization, many centuries later, of the "Grecian heaven"; into the massive folklore and poetry of a *Faust*, a *Parsifal*, or a *Zarathustra*; and so down into the very tough mindedness of James's *Pragmatism*.

Now it may stretch one's credulity, if not one's imagination, to accept the proposition that these same roots find their way into the personality of our one person whose correlations have just been referred to. Yet clearly he operated with my little test, and it is not really difficult to see that his evalu-

³ Thus, for the following quite typical data, the person is very likely to be introverted in type (or thinks he is):

	Self	Ideal	Ideal
	(a)	I (b)	E (c)
(a)	—	+ 50	- 55
(b)		—	- 90
(c)			—

ations of the traits may very well stem just precisely into or from such historically persistent strands.

At the outset he was asked merely to give a description of his own personality in terms of the 200 innocuous-looking traits. He had no idea that I was going to ask him, subsequently, to describe an ideal or typical introvert and an extrovert. Nor did the traits suggest that anything of the kind was likely to be involved. Clearly some kind of ostensible learning has mediated, and the culture psychologist was perhaps quite correct to trace this not only into current culture (plus learning in an ostensible manner), but also to seek its roots in cultural history.

The psychometrist, however, has not sought to represent such types but to measure isolated, perhaps a-historical or immediate, functions or factors, such as introversion-extroversion or the like—much as one measures an electric current. At best the result has been not one function or factor, but several, to judge for example from Guilford's studies. One doubts, however, whether anyone feels happy about these factors, for they really do not explain anything, they are incapable of consequent operational tests, and indeed different forms of analysis can provide rather different apparent factors.

The situation is very different if one seeks to *represent* types as such statistically. For one can then operate with the types, that is, subject them to experimental tests, even for only one person at a time.

One can see the fashioning of such

types, interestingly enough, in current American culture. Eric Fromm (13) for example, in his *Man for Himself*, offers a description of the supposed "market" type of personality, which he ascribes to Americans who apparently want to sell everything, including their own personalities. In terms of Q-technique I have recently reduced Fromm's notions to some kind of orderly operational testing, and can readily demonstrate, and thus verify, his "market" characterization of Americans. This, apparently, is fashioned by your culture.

But what we prove is that such-and-such men are *alike* in type. It is quite another matter to test them for any underlying functions in terms of individual differences. By the very postulates one uses, in the latter case, one throws away any possibility of achieving concrete types as such.

In conclusion, then, cultural influences can be brought into full view in the *typification* of human beings, as Spengler, Jung, and others down to Fromm have seen. I state it as a testable postulate that any systematic quantification in terms of individual differences (which we are unfortunately wont to regard, almost as a myth, as the exclusive concern of our testing procedures) cannot represent such typification, and certainly is in no way needed for its achievement.

As I see the issues, therefore, in the very broadest manner I am prepared to examine the null hypothesis that

cultural background is neutral, or can be randomized, with respect to some of our major psychological preoccupations. These are functions such as noesis, libido, and the like. As an offshoot, it is perhaps as well to remember that society also determines what abilities will be valued, and what discounted. But by the same token it is now easy to demonstrate that man's personality *types* are fashioned very probably in terms of the culture in which he lives.

REFERENCES

- (1) Hodges, H. A. *Wilhelm Dilthey: an Introduction*. N.Y., 1944.
- (2) Mannheim, K. *Man and Society*. N.Y., 1949.
- (3) Kaufmann, F. *Methodology of the Social Sciences*. N.Y., 1944.
- (4) Carmichael, *British J. of Psychology (Gen. Sec.)*, 1943.
- (5) Jackson, L. *Ph.D. Thesis, University of Oxford*, 1948.
- (6) Stephenson, W. *J. Educ. Psychol.*, 1931, Vol. 22.
- (7) Brown, W., and Stephenson, W. Chapter VII of Brown and Thomson, *Essentials of Mental Measurement*. N.Y., 1940.
- (8) Fortes, M. *Ph.D. Thesis, University of London*, 1929.
- (9) Dodd, S. C. *International Group Mental Tests*. Ph.D. Thesis, Princeton University, 1926.
- (10) Penrose and Raven. *British J. Med. Psych.*, 1943.
- (11) Cattell, R. B. A Culture-Free Intelligence Test. *J. Educ. Psychol.*, 1940.
- (12) Cantril, H. UNESCO Studies, 1949.
- (13) Fromm, E. *Man for Himself*. N.Y., 1949.
- (14) Stephenson, W. (see bibliography in Wolfe, D. *Factor Analysis to 1940*. Chicago U.P.)
- (15) Jung, C. G. *Psychological Types*. N.Y., 1935.