

FACULTY RESEARCH EDITION

of

The Savannah State College Bulletin

Published by

The Savannah State College

Volume 22, No. 2 Savannah, Georgia December, 1968

HOWARD JORDAN, JR., *President*

Editorial Committee

Joan L. Gordon

Charles Pratt

Calvin L. Kiah

Hanes Walton

WILLIE G. TUCKER

A. J. McLEMORE, *Chairman*

Articles are presented on the authority of their writers, and neither the Editorial Committee nor Savannah State College assumes responsibility for the views expressed by contributors.

M 1113
BOUND BY THE NATIONAL LIBRARY BINDERY CO. OF GA.

Table Of Contents

Some Selected Problems Involved in Assessing the Intelligence and Achievement of Disadvantaged Groups; With Emphasis on the Negro Charles A. Asbury.....	7
Guaranteed Annual Income Sarvan K. Bhatia.....	21
Economic Development and The Developing Nations Sarvan K. Bhatia.....	31
Individualized Learning in the Introductory Social Science Course: Progress Report Thomas H. Byers.....	43
Teaching Counting and the Fundamental Operations to Elementary School Teachers Prince A. Jackson, Jr.....	48
Use of the Instrumental Activation Analysis for the Characterization of the Terrestrial and Extra-Terrestrial Material M. P. Menon.....	53
Cottonseed Protein Structure I. Isolation of Protein, and Determination of N-Terminal Acids and Sulfhydryl Groups Charles Pratt and Laura Grant.....	64
Synthesis of Certain Chalcones Kamalakar B. Raut.....	67
Synthesis of Some New Azo Dyes Kamalakar B. Raut.....	69
Effect of Cobalt-60 Irradiation on the Morphology of Schistosoma Mansoni John B. Villella.....	71
Myths, Symbolism, and the Measurement Technique Hanes Walton, Jr.....	76
Communist Insurrection and Mass Support in Malaya, 1920 - 1966 Hanes Walton, Jr.....	83
The Funeral Industry Hanes Walton, Jr.....	97

Some Selected Problems Involved In Assessing The Intelligence And Achievement Of Disadvantaged Groups; With Emphasis on The Negro

by

Charles A. Asbury

Introduction

The well known fact of race differences in scores earned on standardized tests is probably one of the best documented in the entire literature of psychology. Most often the documentation is in the form of a comparison of scores earned by whites with scores earned by presumably comparable groups of Negroes on certain selected types of tests. The focus of this type of comparison usually employs tests of intelligence and/or achievement. A variation sometimes seen, is concerned with a comparison of upper or middle class persons with persons from a lower class of the same race or national origin.

Interestingly enough, many writers have contented themselves with merely pointing out that one group scores higher than another and thereby resting their case. That is, they make no attempt to explain or seek out the causes of the phenomenon. Still others, (Shuey, 1966) begin by assuming that they already know the causes and proceed to provide test score differences as evidence in support of their assumptions. Obviously, neither of these approaches provides a thorough and complete insight into the comprehensive understanding of the nature and extent of individual differences. In fact, one of the most unfortunate aspects of the study of "race" and "status" differences in intelligence and achievement is that the attempt to 'prove' has precluded attempts to 'discover'. A statistical difference between two groups says little about the underlying operations or factors which produced the difference. The work of investigators such as Shuey (1966) are good examples of this. They content themselves with describing group differences and assume biological inferiority as the cause. Their work would be far more valuable if they would turn their attention to the search for causes rather than assuming that they already know. This view is also held by Dreger (1960) who comments on an earlier work by Shuey (1958) as follows:

The usefulness of Shuey's otherwise excellent work is limited by what appears to be a polemic attitude. Her book seems to be an attempt to prove a nonegalitarian hypothesis rather than being strictly a review of the literature. (P. 364)

Still other writers have attempted to point out the true nature of the problem and have hypothesized several factors which may be influential in causing score differences. For example, Eells (1951) reported status differences in performance on certain types of test items. The crucial factor in the variation seemed to be opportunity for familiarity

with specific cultural words, objects, or processes required for answering test items correctly. Eells found mean status differences largest for verbal and smallest for picture, geometric-design, and stylized-drawing items. Eells offered an hypothesis concerned with the above contained in the statement:

It seems likely that status differences cannot be attributed to any single simple cause but are the result of various types of factors, quite possibly including genetic or developmental differences in real ability, on the one hand, and motivational and culture-bias factors in the tests, on the other. Interpretation of I.Q. differences between pupils of differing cultural backgrounds should, therefore, be made with extreme caution. Their true significance cannot be stated with any degree of certainty on the basis of present research knowledge. (Eells, 1951, P. 68)

Eells might also have added that the influence of these factors is made even more profound when we consider the complexity associated with their interaction.

The Problem

The purpose of this investigation is to study some selected factors which are generally believed to be operative as influences on the intellectual development of certain status groups, most notably, the Negro. The writer recognizes that much of the work done in this area is not restricted exclusively to Negroes. However, it was found that most of the evidence reported in the current literature concerned with the study of the disadvantaged does apply to Negroes and also some aspects reported are peculiar to the Negro as a special case.

Intellectual development in this investigation is restricted in its usage and should be construed to pertain to those aspects of intellect which have a bearing for performance on standardized tests. The tests involved are essentially measures of intelligence and achievement.

The writer feels that the relationship between intelligence and achievement is sufficiently close to merit their collective study in a single investigation. It is well known that tests of general intelligence are most often predictive instruments for assessing a likely future level of achievement. In addition, the achievement of a child as measured by a standardized achievement test is often as not a fair index of his intelligence. As Dreger puts it,

If we assume that intellectual functions develop adaptively and are not entirely determined by heredity, we may suppose that intelligence tests of the usual variety measure in part that which is developed in order to achieve success in a certain culture. (Dreger, 1960, P. 373)

Scope of Study. This study purports to investigate some selected problems involved in the intellectual assessment of disadvantaged groups. More specifically, it seeks to determine the influence of three primary

groups of factors on the performance of said groups on standardized tests of intelligence and achievement. The three groups of factors are (1) cultural factors, (2) motivational factors, and (3) factors resulting from limitations or differences in cognitive development. Essentially, the focus is on the influence of external and organismic variables on standardized test score. As stated elsewhere, the disadvantaged group emphasized will be the Negro.

The Psychology of the Disadvantaged

No one single factor of influence seems sufficient to account for the persistent discrepancy found between the performance of disadvantaged groups and their counterparts in higher levels of society. Different writers report such factors as test bias, cultural deprivation, lack of motivation, differences in cognitive style, examiner influence, all as being major influencing variables.

Appell (1967) asserts that cultural deprivation among Negroes has an inhibiting effect on the programing of the brain, on the development of perceptual-cognitive structure and processes, all slowing down the attainment of concepts, of intellectual, emotional and social transaction with the environment. Commenting further on motives, Appell believes that individuals differ in inner motivation, self-motivation, self-selection, seeking behavior, will to learn, and achievement motivation.

On the other hand Tyler (1965) has taken the position that motivation does not seem to make much difference in test performance. Also, with reference to emotional stability Tyler contends, "The hypothesis that Negro children are handicapped by a severe degree of neuroticism has likewise not been convincing." (Tyler, 1965. P. 317)

Still others have assumed that Negroes have a distinctly different cognitive style from other groups and that lower-class children are under-developed when they start school. What is the evidence? In this section the writer will attempt to shed some light on the problem by citing the work of several authors concerned with factors of culture, motivation, and cognition.

Cultural Factors

Among the more important expositions centered on the influence of cultural factors on intellectual development has been the work of Klineberg (1935). Klineberg hypothesized that there is an increase in Negro migrant intelligence scores with increasing length of residence in a northern city. More recently, this work was substantiated by Lee (1951) who reported a significant upward trend for general intelligence and for each of the sub-tests of the Chicago Tests of Primary Mental Abilities. The single exception was memory. The overall increase was attributed to better educational advantages and improved environment.

The work of Bloom, Davis, and Hess (1965) has been especially instrumental in pointing out the devastating effects of cultural impoverishment on the intellectual development of children and youth. Another thought provoking and very readable account of the effects of the culture has been offered by Crow (1966). Crow goes into some detail concerning sociological factors, psychological factors, teacher preparation for deprived children, and experiential lacks as all these influences may come to bear on the development of intellect.

Keller (1954) cites the role of attention and approval as another item of fundamental significance. They serve as rewards for certain kinds of behavior and activity. In lower-class sub-cultures it seems that there is a relatively low premium placed on competence of an intellectual and academic nature. The bestowal of secondary reinforcers such as approval and attentiveness comes about, for the most part, as a result of behavior which is, to say the least, different. The sterility of intellectual competence as a means of eliciting these rewards leads to the chronically lowered motivational level with subsequent lack of intellectual development as a corollary.

With special reference to the Negro, Jenkins (1950) concluded after intensive investigation that the most important single fact for any Negro, gifted or otherwise, is his being a Negro. Consequently, the performance he manifests on a test as well as elsewhere is literally "colored" by this fact.

Bloom summarizes the influence of cultural factors when he says concerning intelligence,

The evidence so far available suggests that extreme environments may be described as abundant or deprived for the development of intelligence in terms of the opportunities for learning verbal and language behavior, opportunities for direct as well as vicarious experience with a complex world, encouragement of problem solving and independent thinking, and the types of expectations and motivations for intellectual growth. (Bloom, 1964, P. 88)

In general, it seems that an ethnic group having a collective history of being deprived of stimuli typical of mainstream America is unduly incapacitated by the arousal provoked by standardized tests. Finally, intellectual development varies with the richness, variety, and especially the complexity of the environment over relatively extended periods of time. These things do not exist in the subculture of the disadvantaged.

Motivational Factors

Anderson (1966) has recently reported that the level of academic expectancy may be an important factor in terms of reinforcement and performance. Another investigator (Dreger, 1960) reports that children discern within at least the first four or five years of life their social and ethnic roles, with attendant supervaluations or devaluations of self and performance expectations. As stated by Getzels,

“There are social conditions which have a profound influence on the self-concept and hence on the motivation to learn.” (Getzels, 1964, P. 239)

Even Shuey (1966) admits that,

Probably more research is needed before one can be reasonably certain that inferior motivation or depressed educational aspiration has not influenced the mental test performance of Negro subjects. (Shuey, 1966, P. 508)

The evidence concerning the influence of motivation on test performance is considerably less than conclusive, however.

In a study designed to test the hypothesis that segregated schooling has a depressing effect on educational aspirations, St. John (1966) found no supporting evidence. The author suggested that this problem is more complex than was originally assumed and pointed out the necessity for further investigation. Gary (1966) however, has asserted that attainment of an education is related to the motivation of the individual. Commenting on the interrelationship between motivation and competence, Gadzella and Bentall (1966) support the idea that facility in use of communication skills may be a good predictor of aspirations of high school seniors.

Perhaps some of the confusion in the area of motivation is the result of our lack of knowledge in this field. Recent theoretical models concerned with achievement motivation may serve to eventually shed more light on this complex subject. In addition, a distinction might be in order between motivation to excel on a test, on the one hand, and long-time motivation for academic success in overall school pursuits. Possibly a different dynamic system may be operative in either case.

In summary, many authors go to great length to explore the depressing and stultifying effects of deprived cultural background on the motivational process. Others are equally convinced that these things make little difference. Especially as they may relate to test performance. The writer will submit that there must necessarily be a relationship between the mental orientation of the organism and his motivation toward intellectual pursuit of any kind. However, a complete analysis of the dynamics of this complex relationship awaits further investigation.

Cognitive Factors

Deficiency in development of cognitive ability has been considered a potent influence on standardized test performance. This deficiency is considered as one of the main effects of cultural disadvantage and deprivation. The writer is of the opinion that it merits special consideration in this report because of its immediate relevance for what the tests measure as mental processes in the testing situation. As Mays (1966) puts it with reference to intelligence,

“If a child is trained to think precisely about words and

to reason correctly, this concept formation will be accelerated with corresponding increase in intelligence test score.” (Mays, 1966, P. 328)

Tyler (1965) has noted that Negroes from the south are most inferior to New York Negroes on digit symbol, block design, and picture arrangement subtests. The combination of these suggests some sort of perceptual defect. This is further borne out by deficiencies in picture completion ability. A special difficulty is also noted with regard to number proficiency. Shuey (1966) supposes that the disadvantaged perform better on tests composed of common-sense, concrete material than on tests involving abstract concepts. Shuey notes that children in this group suffer a serious disadvantage when taking tests which are highly verbal and abstract in nature.

Some of the dynamics underlying cognitive development have been cited by Hyman (1964). In the subculture of the disadvantaged the immediacy of present events generally precludes a development of concern for more profound considerations usually implied in the use of such terms as “why”, “how”, and “with what effects”. Commenting further on this aspect of intellectual development, Hyman says,

Piaget and the Russian psychologists agree that this important development of thought is a direct result of the child’s communicating with adults and peers. In gradually achieving mastery of public, as opposed to private, forms of representing the world, the child simultaneously can internalize a system by which he can check his private thoughts against those of his culture. (Hyman, 1964, P. 104)

Obviously, such opportunities as the above may seldom present themselves in the case of the disadvantaged child.

Some investigators have approached this problem from the point of view of differences in cognitive style and organization. Although few in number at present, studies of this type would seem to be promising as vehicles for explaining differences in ability test performance. This writer was able to find only two investigations to date which allude to this problem. They will be presented in some detail in the paragraphs which follow.

Michael (1947) sought to determine the influence of two pilot populations, (815 West Point Cadets and 356 Negro Cadets) upon the factor composition of two comparable test-batteries, of a pass-fail criterion in pilot training, and upon the prediction of criterion scores and factor scores from optimally weighted tests. The two groups had seven factors in common identified:

- | | |
|---------------------------|------------------------------|
| (1) mechanical experience | (4) psychomotor coordination |
| (2) number | (5) perceptual speed |
| (3) pilot interest | (6) reasoning |
| (7) spatial relations | |

An eighth factor called kinesthesia emerged for the Negro group. For West Point Cadets the three most valid factors in the prediction of

pilot success were pilot interest, psychomotor coordination, and spatial relations; for Negroes, kinesthesia, perceptual speed, and spatial relations. Intellectual factors such as number, reasoning, and verbal ability were not valid for either group. This study suggests that for actual performance in some areas the typical intellectual test is not a valid predictor for either group. Also, different mental factors may be operative between Negroes and whites, even for the same performance. If this is a valid assumption, it would seem that the difference in organization of mental traits does not necessarily result in inferior performance.

Semler and Iscoe (1966) focused their attention on the variation in constructs and operations defining "intelligence" as measured by different intelligence tests. There is evidence to suggest that the mental ability estimates provided by some instruments may be inappropriate for individuals who, for whatever reason, have need for a functional intelligence quite different from the standardization population. The authors state:

"The principles underlying the construction of some tests come closer to the functional intelligence concept than others and may provide a much different assessment as a consequence." (Semler and Iscoe, P. 327)

The guiding hypothesis in this work was that white-Negro differences in level of measured intelligence would be less on a test involving cognitive abilities than on a test loaded with psycho-cultural factors. Two of the tests were the *Wechsler Intelligence Scale for Children* and the *Progressive Matrices*. No significant differences were found on the *Progressive Matrices*, but differences were significant at all age levels on the Wechsler. The authors concluded:

The white-Negro PM subtest inter-correlation matrices were quite similar, suggesting that the interrelationships among the stages of cognitive development sampled by this test are quite similar for the two races. (Semler and Iscoe, 1966, P. 355)

This study seems to support the idea that cognitive organization and structure are the same for both races in those areas which are not influenced by psychocultural variables, but tests themselves are generally highly loaded with cultural content rather than pure factor cognitive content.

Problems of Assessment

While all the preceding discussion has relevance for assessment of the culturally disadvantaged, the writer will now turn his attention to problems which are peculiar to the conception, construction, and operation of the tests themselves. As Appell (1967) has stated,

"Whatever the stimulation of assessment, whatever the origin of its use, if assessment is decided upon as a way of helping to know what is happening in the classroom, there are certain dimensions about which to wonder." (Appell, 1967, P. 459)

Implicit in such a statement is the notion that there may be more than the usual amount of error involved in assessing the intellectual abilities of the disadvantaged.

Intelligence Assessment

As far as environmental considerations are involved, the two prevailing points of view concerning differences in measured intelligence are: (1) tests commonly used are inadequate or unfair for some groups; (2) that differences in test scores reflect real differences in ability, but that these are due to educational handicaps and experiential deprivation. Tyler (1965) is of the opinion that,

First, there is some doubt as to whether tests designed for white subjects are altogether adequate measures of Negro intelligence. Second, some developmental influence other than educational and socio-economic handicaps may be having a consistently depressing influence on the mental growth of Negro children. (Tyler, 1965, P. 345)

And further, "Thus, while we cannot conclude that "middle-class bias" in intelligence tests is of no importance, we can say with some assurance that the differences lie deeper than this." (Tyler, 1965, P. 348)

Since a substantial majority of recent group tests is patterned after the 1937 Stanford-Binet in terms of conceptualization, and compared with the Binet in terms of their results, it seems in order to look more closely at this instrument. Two crucial questions here are, "How was it standardized?", and, "What is it supposed to do for whom?" The following quotations taken from the manual for the latest revision shed some light on the answers:

Though the 1937 scale provided a wider sampling of abilities than did the earlier scale (1916), including more pictorial and manipulative items, it was still heavily weighed with test situations in which verbal ability was an essential element: Many of the so-called performance test items tried for inclusion in the scale (1960) and were eliminated because they contributed little or nothing to the total score. They were not valid items for this scale. (Terman and Merrill, 1960, P. 8)

This acknowledgement by the authors is not particularly encouraging in view of the well-established fact that Negroes and other disadvantaged groups have a history of language and communications difficulty. The admission of lack of validity of certain performance items does violence also to Shuey's (1966) earlier cited assumption concerning concrete and practical items.

In referring to the norming population the test authors further state,

"The final 1937 standardization group consisted of 3184

native-born white subjects," (Terman and Merrill, 1960, P. 9)

and still further concerning their attempts to equalize the sample,

Despite such precautions, the sample proved to be slightly higher in socio-economic level than the census figures indicated for the general population. (Terman and Merrill, 1960, P. 10)

The foregoing statements imply that any time the 1937 Binet or another test with a similar rationale, is used with Negro subjects, the resulting low scores should be quite predictable.

Merrill then proceeds to comment on the relationship between test score and test item content and presentation, again with obvious implications for the mismeasurement of the disadvantaged.

In the 1930's, for example, 69 per cent of the three year olds of the standardization group recognized and could name 5 out of 6 items consisting of miniature object reproductions of shoe, watch, telephone, flag, jackknife, and stone. In the 1950's only 11 per cent of children whose mental age on the same scale was three years were able to do so. (Terman and Merrill, 1960, P. 19)

This points to the role of familiarity with test item content in success with intelligence tests. The manner of presentation and the name the item is called are significant factors influencing successful communication between the child and the problem presented.

Cooper (1967) attempted to find an instrument which would discriminate academically disabled southern Negro adolescents from those who appeared genuinely defective in intelligence. Tests studied were the (1) Wechsler, (2) Revised Beta, (3) Ammons Picture Vocabulary, and (4) Porteus test. Cooper concluded that the Porteus test was the only one which did not classify behaviorally nonretarded subjects the same as those who were retarded. It is apparent that some intelligence measurement meets virtually none of the criteria for valid or reliable assessment. Summarizing with a mixed conclusion, Cooper stated,

It is suggested that this experiment demonstrates not only the inadequacy of current intelligence tests when used with this population but also that this study has related a psychological assessment instrument to specific behavioral criteria. (Cooper, 1967, P. 191)

Most test content has little utility in dealing with the elementary problem of survival in a subculture. Also, if prior failure has anything to do with current test performance, it should be noted that many disadvantaged children have already had failure experiences with some of the test content at the time they are first tested.

The expectations of the examiner have also undergone scrutiny. Smith (1966) reported evidence of significant examiner variability associated with the administration of the Stanford-Binet. Some sug-

gested sources of variability were sex, race, and testing experience of the examiner. Especially crucial was the examiner's expectations for the success of the subjects.

Haggard (1954) in reviewing the findings of many studies reached a highly critical conclusion which seems to apply fully to the tests currently being used.

In terms of our present knowledge the standard type intelligence tests are inadequate on several counts: (1) They have measured only a very narrow range of mental abilities, namely, those related to verbal or academic success and have ignored other abilities and problem solving skills which perhaps are more important for adjustment and success even in middle-class society; (b) they have failed to provide measures of the wide variety of qualitative differences and the modes and processes of solving mental problems; (c) they have ignored the differences in cultural training and socialization on the repertoire of experience and the attitude, motivation, and personality patterns of some groups of our society, and the effects of such factors on mental test performance; and (d) they have considered mental functioning in isolation, thus ignoring the interdependence of the individual's motivational and personal structure on the characteristics of his mental functioning as seen, for example, in the differences between rote learning and the ability to use previous experiences creatively in a new context. (Haggard, 1959, P. 187)

Assessment of Achievement

For the most part, the bulk of the studies concerning the whole intelligence range indicates that Negroes show the same deficiencies in their school work that they do on the intelligence tests themselves (Tyler, 1965). Gary (1966) has pointed out the handicap associated with demands of the school and lack of stimulation in the home at an early age.

Environmental conditions contribute to the self-concept which, in turn, influences motivation. In the lower socio-economic group the emphasis is on survival. The lack of parental guidance is often the result of reduction in time for concern about a child's school learning. These and other factors are influential on the child's school achievement and are reflected in performance on standardized achievement tests.

Symbol-expressive middle-class cues are not learned by the lower-class child. Thusly, the child searches for concrete experiences and ignores the middle-class communication system because he has never learned it. (Gary, 1966). The lack of early mastery in verbal ability produces a cumulative deficit in language development and conceptual abilities. Experience with the communication system is sorely lacking in lower-class culture and reflects itself in poor performance

in dealing with the primarily verbal business of school work. As one author puts it, "Aquisition of language through verbal dialogues at a pre-school age is the basis for readiness to develop cognitive capacities." (Gary, 1966, P. 351)

Another serious problem connected with the low level of performance of disadvantaged groups on standardized achievement tests concerns the eternal lack of recognition on the part of test authors, of the formal experiential preparation of this select group. Test manuals which report standardization procedural data often read as if the tests are constructed for use with some "ideal" premolded groups who are trained in some "utopian" educational setting (Hopkins, 1966). The standardization of the mathematics concepts segment of the *Stanford Achievement Test Battery* has received the following commentary by Hopkins:

A more serious omission concerns the mathematical background of the participating pupils. 'The major requirement for inclusion of a school system in the norm group was that the system had a recognized modern mathematics program in effect for a reasonable length of time in each of the grades (5-9) being tested.' (Statement from manual) This statement gives rise to several important but unanswered questions. Which are the "recognized" programs? Presumably, the SMSG regular and UICSM texts are among the recognized programs. Does the SMSG-M text or the Ball State Teachers College program qualify? Which program approaches were actually included in the standardization sample? What is the breakdown by percentage of pupils for the various approaches involved? What constitutes a reasonable length of time? Did "reasonable" include a 2-8 year span in modern math background? These questions are especially relevant since they are needed to ascertain whether a given school district could be considered as a member of the population for which the norms apply. Hopkins, 1966, P. 333)

Obviously, the above critique suggests that often a test author may either intentionally or unintentionally blindfold himself to the realities of the practical situation in which the test is to be used. When we combine the ambiguity of his criteria for inclusion in the norming population with the well-known lag behind the times of schools for the disadvantaged, we come up with a curious situation. It would seem that such tests as the above could at best have only minimal validity for assessing the achievement of pupils exposed to haphazard, substandard, and generally deficient instruction in mathematics. Attempts to use an instrument standardized on the basis of such a rationale would not so much involve the measurement of what the pupils have *achieved* as it would the definitive determination of what they have *been taught*.

General Considerations

Evidence continues to mount to the effect that there is only an incidental relationship between what goes on in school, as it has a bearing for dealing with real problems, and what takes place outside the school. Thusly, if the typical intelligence test measures the abilities necessary for success in school, it is even further removed from the prediction of success in effective living than the school is removed from the business of preparation for effective living. The point here is that often the assessment of intellectual development of disadvantaged groups fails due to the fact that the child's "practical intellect" is developing in an entirely different from what the test presumes it should.

Lower class children are underdeveloped when they start school and learning difficulties might be alleviated considerably if teaching is undertaken on an individualized diagnostic and treatment basis (Wayson, 1967). An improvement in verbal ability would, in itself, raise the total score on a general intelligence test, even though there was no improvement in other factors (Lee, 1951).

Summary

This report is the result of an investigation of selected problem areas which seem to have a bearing on the performance of disadvantaged groups on standardized tests. The problem areas were cultural influences, motivation, and cognitive development. The plight of the Negro was considered especially relevant.

Generally, the review of literature revealed a striking and consistent set of adverse circumstances which come to bear on the intellectual development of this unfortunate group. In some instances the evidence weighs heavily in the direction of showing underdevelopment of capacities. In others, it would seem that the development is not stunted, but rather is pointed in a direction which is contrary to academic goals and objectives.

At present the purposes of the schools do not seem to be in keeping with meeting the needs of a large segment of the population. Since intelligence and achievement assessment instruments relate for the most to school problems, their use with disadvantaged groups is somewhat of an anachronism. Certainly, the extent of their usage to make judgements is unjustified. As long as the circumstances of the disadvantaged remain the same, the tests remain the same, and the schools remain as they are, we will continue to get the same results. That is, low scores which reflect a composite set of unfortunate circumstances.

Conclusions. On the basis of the foregoing investigation, the writer will submit the following specific tentative conclusions:

- (1) No one single factor may be pointed out as the cause of low test performance of disadvantaged groups.

- (2) Two of the most crucial factors in the cognitive domain which are reflected in test performance are verbal facility and perceptual ability.
- (3) Intelligence development varies with the richness, variety, and complexity of the environment over relatively extended periods of time.
- (4) Low test scores often are a reflection of a negative self-concept and insufficient motivation.
- (5) Often the practical intellect of the disadvantaged operates at crosspurposes with the work of the school. As stated by Dreger and Miller,

“It is naive to assume that the academic types of intelligence tests which have traditionally been the instruments of comparison compare in reality (sic) Negroes and whites in those areas of intelligence which they are called upon to use in “real life” situations. Intelligence test differences between Negroes and whites cannot mean the same as they mean between two groups of whites.” (Dreger and Miller, 1960, P. 373)

- (6) Use of logical thought processes is aborted with this being reflected in test performance.
- (7) Often assessment instruments possess only minimal validity and reliability for use with disadvantaged groups.

As has been discussed elsewhere, the current state of affairs in American society is such that the problems in this area will not soon avail themselves of solution. The present aura of confusion combined with a lack of knowledge of the complexity of the problem makes the difficulty more than prominent. The practical significance of the problem of assessment of disadvantaged groups generates its own fascination, however, for the serious student of psychology.

Bibliography

- Anderson, H. E., “Generalized effects of praise and reproof.” *Journal of Educational Psychology*, 1966, 57, 169-173.
- Appell, M. L., “Assessment; its many facets.” *Childhood Education*, 1967, 43, 458-462.
- Bloom, Benjamin S., *Stability and Change in Human Characteristics*, New York: John Wiley & Sons, Inc., 1965.
- , Davis Allison, and Hess, Robert, *Compensatory Education for Cultural Depreciation*, New York: Holt, Rinehart and Winston, Inc., 1965.
- Cooper, G. D., “Porteus test and Various measures of intelligence with Southern Negro adolescents.”
- Crow, Lester D., Murray, Walter I., and Smythe, Hugh H., *Education the Culturally Disadvantaged Child*, New York: David McKay Company, Inc., 1966.

- Dreger, R. M., and Miller, K. S., "Comparative Psychological studies of Negroes and whites in the United States." *Psychological Bulletin*, 1960, 57, 361-402.
- Eells, Kenneth, et al., *Intelligence and Cultural Differences*, Chicago: University of Chicago Press, 1951.
- Gadzella, B. M., and Bental, G., "Differences in mental ability and academic achievement of two groups of high school graduates." *Journal of Educational Research*, 1966, 60, 104-106.
- Gary, D. L., "Class socialization patterns and their relationship to learning." *School and Society*, 1966, 94, 349-352.
- Getzels, Jacob W., "Learning to learn and the education of the lower-class urban child." *American Journal of Orthopsychiatry*, 1964, 34, 238-239.
- Goslin, David, *The Search for Ability*, New York: Russell Sage Foundation, 1963.
- Haggard, E. A., "Social status and intelligence: An experimental study of certain cultural determinants of measured intelligence." In S. Bech and M. B. Molish (eds.), *Reflexes to intelligence: A Reader in Clinical Psychology*, Glencoe, Illinois: The Free Press, 1959, 141-187.
- Hopkins, R. R., "Stanford Achievement Test: Modern Mathematics Concepts Test" (Review). *Journal of Educational Measurement*, 1966, 3, 331-334.
- Hyman, Ray, *The Nature of Psychological Inquiry*, New Jersey: Prentice Hall, Inc., 1964.
- Jenkins, M. D., "Intellectually superior Negro youth: Problems and Needs." *Journal of Negro Education*, 1950, 19, 322-332.
- Keller, Fred S., *Learning: Reinforcement Theory*. New York: Random House, Inc., 1954.
- Klineberg, Otts, *Negro Intelligence and Selective Migration*, New York: Columbia University Press, 1935.
- Lee, E. S., "Negro Intelligence and selective migration: A Philadelphia test of the Klineberg hypothesis." *American Sociological Review*, 1951, 16, 227-233.
- Mays, W., "Philosophic critique of intelligence test." *Educational Theory*, 1966, 16, 218-239.
- Michael, W. B., "An investigation of the contribution of factors to tests and to their predictive value in two Army Air Force pilot populations." *American Psychologist*, 1947, 2, 417-418.
- Semler, I. J., and Iscoe, I., "Structure of intelligence in Negro and white children." *Journal of Educational Psychology*, 1966, 57, 326-336.
- Shuey, A. M., *The Testing of Negro Intelligence*, Lynchburg, Virginia: J. P. Bell, Inc., 1958.
- , *The Testing of Negro Intelligence*, Lynchburg, Virginia: J. P. Bell, Inc., 1966.
- Smith, Herbert W., May, Theodore, and Leborritz, Leon, "Testing experience and Stanford-Binet scores." *Journal of Educational Measurement*, 1966, 3, 229-232.
- St. John, N. H., "Effect of segregation on the aspirations of Negro youth." *Harvard Educational Review*, 1966, 36, 284-294.
- Terman, Lewis M., and Merrill, Maud A., *Manual for the Stanford-Binet Intelligence Scale*, Boston: Houghton Mifflin Company, 1960.
- Tyler, Leona E., *The Psychology of Human Differences*, New York: Appleton-Century-Crafts, 1965.
- Wayson, W. W., "Needed: Diagnostic Attention." *Educational Leadership*, 1967, 24, 323-326.

Charles A. Asbury is an assistant professor in the Department of Education and Psychology at Fayetteville State College.