Journal of Applied Psychology
1977, Vol. 62, No. 1, 57–63

Black Intelligence Test of Cultural Homogeneity and Wechsler Adult Intelligence Scale Scores of Black and White Police Applicants

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The 100-item Black Intelligence Test of Cultural Homogeneity (BITCH) and the full Wechsler Adult Intelligence Scale (WAIS) were administered to 17 black (6 female and 11 male) and 66 white (16 female and 50 male) police applicants. The mean age of subjects of the four samples was in the early 20s, and mean education level was 2½ years of college. The results revealed considerable overlap in the distributions of individual WAIS Full Scale IQ between the black and white subjects, but two totally nonoverlapping distributions of scores on the BITCH, with not a single white female or male scoring above a single black male or female. The BITCH means were as follows: white females, 60.9; white males, 64.1; black females, 86.7; and black males, 83.9. The corresponding WAIS Full Scale IQ means were 117.2, 117.8, 110.2, and 101.6, respectively. Correlational analyses between the BITCH and each of the 14 WAIS measures revealed no relation between score on the BITCH and score on the WAIS. This lack of concurrent validity for the present form of the BITCH and its lack of adequate ceiling for black applicants presents problems for its use in a program of police selection.

Robert L. Williams, a black clinical psychologist on the faculty of Washington University in St. Louis, developed and recently published a 100-item pencil-and-paper test which he believes measures the intelligence of black subjects more fairly than do the tests currently in use. The instrument is called the Black Intelligence Test of Cultural Homogeneity (BITCH). Williams (Note 1, p. 2) acknowledges in the examiner's manual that accompanies his test that the BITCH "is not intended to be a culture-fair or culture-common test." Rather it was deliberately developed to be "a culture-specific test," one that taps and reflects the life and cultural experiences of blacks living in this country. Although the primary standardization sample included in the manual consisted of 100 black and 100 white St. Louis high school students ranging in age from 16 to 18, Williams also presented normative data from two other samples of blacks and whites.[1] These latter were 25 black and 13 white college students from Mississippi and 19 white graduate students from Boston University. In the original standardization sample of 200 St. Louis high school students, the 100 black subjects correctly answered 87 out of the 100 BITCH items, whereas the 100 white subjects correctly answered only 51 of the same 100 items. Black subjects in the other two studies likewise earned mean scores on the BITCH that were equally disparate from the means of the white subjects. The test–retest reliability obtained for these St. Louis subjects was .88 for the black subjects and .84 for the white subjects.

Examination of the 100 BITCH items themselves, as well as the means from these several normative studies, confirms Williams' (Note 1)

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[1] In a personal communication (1976) Williams indicated that he was just completing a national study of some 1,300 black subjects, male and female, ranging in age from 15 to 91, and selected from five major geographic regions of the country.

belief that his intelligence test has

> the advantage of dealing with content material which is familiar to the Black [adolescent and adult]. This means that he already has stored away mental images of the material so that he does not have to deal with the foreign or unfamiliar aspects of these materials. Thus, a combination of dialect specific and culture specific tests would certainly enhance the possibility of measuring accurately what is inside the Black [person's] head. This is the basic rationale for the BITCH-100. (p. 5)

Our perusal of the 100 items reveals that they also sample a wide range of knowledge that "street-wise" subjects who live in the ghetto could be considered to have.[2]

We became interested in using the BITCH to aid us in a police-selection program that we have been carrying out for the city of Portland at the University of Oregon School of Medicine since 1959 (see Matarazzo, Allen, Saslow, & Wiens, 1964). To date we have personally examined some 1,100 such applicants for the final stage in the hiring process, namely, after applicants have successfully passed the written Civil Service Examination, medical examination, and an oral interview conducted by a three-person committee of police and Civil Service representatives. Few blacks were applying for police work in our community before 1970, and thus no more than one or two were examined by us between 1959 and 1970. However, when a forceful minority recruitment effort was begun several years ago it became clear to us that we soon would be examining greater numbers of black applicants. We anticipated that these black subjects would receive lower Full Scale IQ scores on our only measure of intelligence, the Wechsler Adult Intelligence Scale (WAIS), relative to white applicants. As a result, we sought a measure potentially suited as a moderator variable with our black applicants. The BITCH was our choice. To date we have examined 17 black subjects (11 males and 6 females) with an extensive 6-hour assessment battery that includes both the BITCH and the WAIS. We also examined 16 white female subjects, an initial sample of 50 white male subjects, and a second sample of 50 white males. The purpose of the present paper is to report on the relation between performance on the BITCH and on the WAIS for these white and black samples. The studies of the differences in performance of subgroups differentiated along such additional dimensions as urban–rural, socioeconomic status, type of occupation, success or failure in pilot selection, delinquent–nondelinquent, educational background, and the like is so voluminous as to preclude even a cursory review here. The reader interested in a detailed review and critique of these findings, which serve as the historical context for the present study, is referred to Matarazzo (1972).

Method

Procedure

Each applicant arrived at the University of Oregon Department of Medical Psychology Outpatient Clinic shortly after 8:00 a.m. After the subject filled out a short biographic sketch, he or she was individually administered the WAIS as well as Rorschach by the same clinical psychologist examiner (ANW). The nontimed BITCH was next self-administered, along with the Minnesota Multiphasic Personality Inventory, Strong Vocational Interest Blank, and other assessment instruments. A 1-hour clinically oriented interview covering the familial, educational, and occupational history of each applicant was also included.

Subjects

The 11 black male subjects had a mean age of 24.6 years (21–29) and mean education of 14.2 years (12–16). Mean age and mean education, respectively, was 26.0 (22–29) and 14.2 (12–16) for the black female subjects, 24.6 (21–28) and 15.4 (13–18) for the 16 white female subjects, 24.7 (21–30) and 15.0 (12–18) for the first sample of 50 white male subjects (Group 1), and 25.4 (21–30) and 15.3 (12–18) for the second sample of 50 white male subjects (Group 2). The findings for this second sample of 50 white males were identical to those for the first 50 and, to conserve space, will not be reported here in the same detail as the first group. Matarazzo et al. (1964) present a detailed description of the background and psychological test findings on our population of applicants. Results for the black and white samples reported in the present study did not impress us as being different from this earlier-described

[2] Williams pointed out to us (personal communication, 1976) that "Ebonics" is a more appropriate term for what his test samples than is "street-wise." Ebonics may be defined as "the linguistic and paralinguistic features which on a concentric continuum represents the communicative competence of the West African, Caribbean, and United States slave descendants of African origin. It includes the various idioms, patois, argots, idealects, and social dialects of black people" (Williams, Note 2, p. VI).

population other than that (reflecting a national trend) the percentage of college graduates was slightly higher than that of the earlier study.

Results

Table 1 presents the mean scores, standard deviations, and ranges for the BITCH and WAIS Full Scale IQ for each of the five samples. Mean for the WAIS Full Scale IQ of the 50 white male subjects (Group 1) was 117.8, and that of the 16 white female subjects was 117.2. These means and their respective ranges are typical both of the pool of our 1,100 such applicants during the past 17 years and what the literature suggests is a typical Full Scale IQ score for subjects with 3 years of college (Matarazzo, 1972, p. 175; p. 178; p. 284). The mean Full Scale IQ of 110.2 for the 6 black female subjects and the mean of 101.6 for the 11 black male subjects is likewise typical for their comparable 2 years of college education. Figure 1 presents these WAIS Full Scale IQ data individually for each subject. These mean WAIS data, as well as the ranges and relatively small standard deviations shown in Table 1 and Figure 1, suggest that our four samples of subjects are fairly representative of this country's college-educated young men and women and add validity to our belief that they are representative samples from our larger population of police applicants (Matarazzo et al., 1964, p. 127).

Table 1
Performance on the Black Intelligence Test of Cultural Homogeneity and the Wechsler Adult Intelligence Scale for Black and White Female and Male Job Applicants

Variable	*n*	*M*	*SD*	range
Black Intelligence Test of Cultural Homogeneity				
Female				
Black	6	86.7	2.7	83–91
White	16	60.9	12.0	23–79
Male				
Black	11	83.9	3.3	79–88
White				
Group 1	50	64.1	6.0	42–73
Group 2	50	64.4	8.0	36–80
Wechsler Adult Intelligence Scale: Full Scale IQ				
Female				
Black	6	110.2	12.5	100–126
White	16	117.2	7.0	106–129
Male				
Black	11	101.6	7.1	91–115
White				
Group 1	50	117.8	6.9	101–130
Group 2	50	115.5	7.4	102–135

Table 1 and Figure 2 likewise contain comparable data from these four samples on the BITCH. The data for individual subjects in Figure 2 reveal more clearly than do the mean values presented in Table 1 that (a)

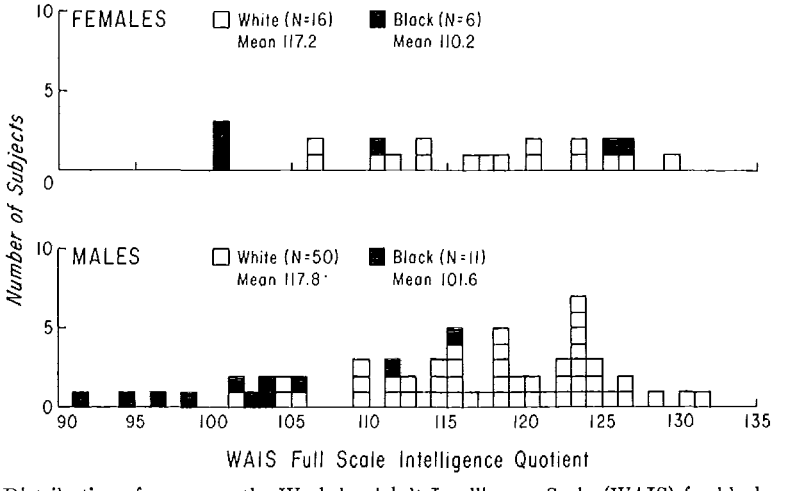

Figure 1. Distribution of scores on the Wechsler Adult Intelligence Scale (WAIS) for black and white female and male police applicants.

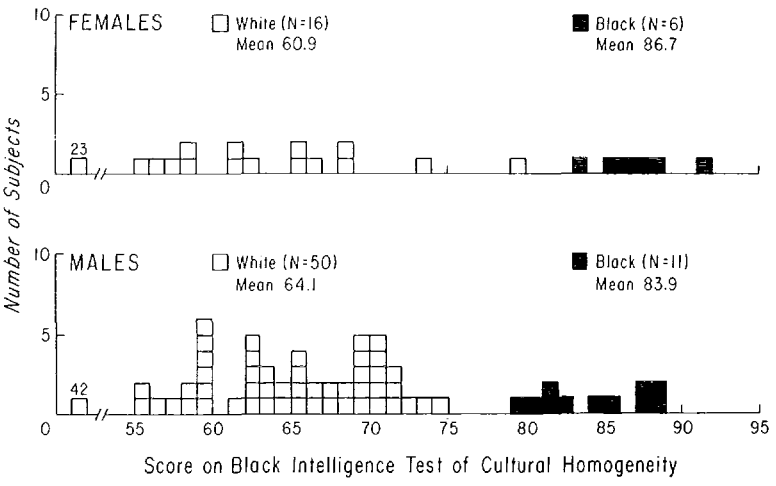

Figure 2. Distribution of scores on the Black Intelligence Test of Cultural Homogeneity for black and white female and male police applicants.

black subjects, whether male or female, miss very few of the 100 BITCH items (means of 86.7 and 83.9 for females and males, respectively); (b) white female subjects, who as a group correctly answered only 60.9 of the same 100 items, and white male subjects, who as a group correctly answered only 64.1 of the items, perform very poorly on the BITCH relative to their black-applicant counterpart. One can see from Figure 1 that the white and black subjects show considerable overlap in the distributions of their WAIS Full Scale IQ scores. In Figure 2, however, the respective performance of blacks and whites on the BITCH *distributes them into two nonoverlapping groups,* with not a single white female or male scoring above a single black male or female. This is in keeping with Williams'

Table 2
Correlations Between the Black Intelligence Test of Cultural Homogeneity (BITCH) and the Wechlser Adult Intelligence Scale (WAIS) for Four Groups of Job Applicants

Variable	Blacks			Whites		
				Females	Males	
	Males (n = 6)	Females (n = 11)	Combined (n = 17)	(n = 16)	Group 1 (n = 50)	Group 2 (n = 50)
BITCH versus						
WAIS Verbal Scale IQ	.04	−.38	−.04	−.01	.30	.07
WAIS Performance Scale IQ	.08	−.12	.13	.30	.09	.02
WAIS Full Scale IQ	.05	−.33	.04	.22	.26	.05
WAIS Information	.03	−.50	−.22	.36	.23	.08
WAIS Comprehension	.19	−.23	.10	.04	.24	.10
WAIS Arithmetic	.06	−.50	−.25	−.05	.14	−.18
WAIS Similarities	−.27	−.18	−.05	−.25	.35	.13
WAIS Digit Span	.18	.10	.30	−.09	.08	.12
WAIS Vocabulary	−.16	−.38	−.18	.12	.16	.08
WAIS Digit Symbol	−.09	−.39	−.10	.36	−.01	.23
WAIS Picture Completion	.23	.16	.16	.65*	−.04	−.12
WAIS Block Design	.26	−.46	−.06	.05	−.06	−.18
WAIS Picture Arrangement	.10	.18	.15	.14	.17	.09
WAIS Object Assembly	.28	.15	.33	.11	.24	.02
BITCH versus						
Years of education	−.48	−.32	−.33	−.39	.16	.02
WAIS FSIQ versus						
Years of education	.51	.36	.36	−.18	−.01	−.09

* $p < .01$.

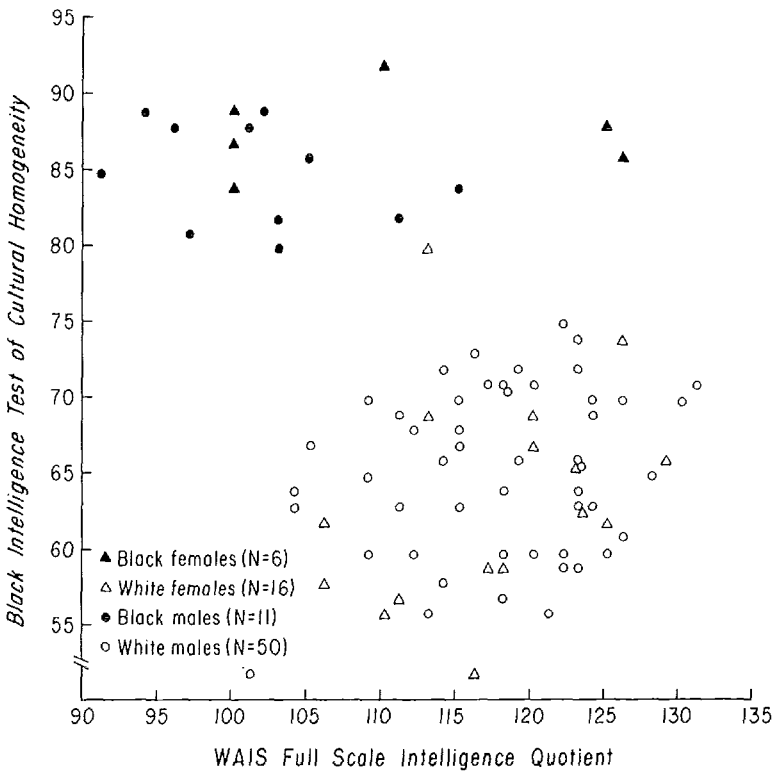

Figure 3. Scatterplot of individual Black Intelligence Test of Cultural Homogeneity (BITCH) and Wechsler Adult Intelligence Scale (WAIS) scores for black and white female and male police applicants.

(Note 1) findings with his standardization samples. One thus may conclude that Williams' hope of constructing a test that is specific to the black experience relative to that of the white has been demonstrated in yet another sample: Portland, Oregon, police applicants.

Table 2 presents the Pearson product-moment correlation coefficients between the BITCH and WAIS score for individual subjects in the five samples. It is at once obvious that a score on the BITCH is in no way a function of WAIS IQ, or vice versa. The two tests seem to sample totally different aspects of individual differences in our samples. Whether for the two black samples alone, or for the combined black male and female sample of 17 subjects, the BITCH and WAIS show a correlation neither for Full Scale IQ, Verbal Scale IQ, or Performance Scale IQ, nor for any one of the 11 subtests of the WAIS.

The correlation findings from the 16 white female subjects and from the 50 white male subjects in Group 1 and the 50 white male subjects in Group 2 are similar to those of their black-counterpart samples and reinforce the finding that the WAIS and BITCH do not correlate with each other. (The one significant r of .65 can be assumed to be a *chance* finding in a table with as many values of r as this one.)

Because we feel the BITCH is an assessment instrument whose psychometric properties ought to be fully explored, and because we wish to underscore the import of the findings in Table 2, we constructed and present in Figure 3 a scatterplot of the individual Full Scale IQ and BITCH scores for each of the 83 subjects comprising our first four samples.[3] The indi-

[3] The absence of significant correlation shown in Table 2 could of course reflect a *restriction* in the range of *talent* in our samples. Examination of the WAIS and BITCH data in our Table 1 and Figures 1 and 2 suggests that such was not the case, despite the narrowness and restriction in the range of years of education in both samples. The influence of this restricted range of *education* is demonstrated in the deviation from the typically reported r of .30–.50 between years of educa-

vidual data in Figure 3 offer impressive support for the belief that in our samples of applicants a score on the BITCH is totally independent of WAIS Full Scale IQ, and vice versa.

Discussion

Williams (Note 1) set out to develop a test for black individuals that would effectively sample the black experience and would also reveal individual differences in intelligence. The data in Figure 2 indicate that he was successful in his first hope, inasmuch as the blacks in our study score higher on the BITCH, to a striking degree, than the whites in our study. The data in Figure 2 also reveal, however, a psychometrically disturbing feature of the BITCH. That is, whereas the white subjects in the present study were widely distributed across the possible range of performance on the BITCH—yielding the sort of distribution that a test ought to elicit—this same test failed to produce a relatively comparable distribution of talent in the upper half of its range for the black subjects in the present study. Our 17 blacks ranged in score from 79 to 91 (a difference of only 12) on this 100-item test, which suggests that the BITCH, for any practical potential use in the present police selection program, was unable to discriminate one black examinee from another. On the other hand, the distribution of scores for our white subjects was from a low of 23 to a high of 79 for the 16 females, and from a low of 42 to a high of 73 for our 50 males in Group 1. This reflects a much greater range of talent on this test and suggests that Williams' hope that the BITCH would effectively discriminate whites with knowledge about the black experience from whites without such knowledge appears to be borne out. Inasmuch as we believe that a test such as the BITCH could prove to be a very valuable tool in police-selection programs such as our own, we hope that in its future revisions Williams will *raise* the present ceiling of the test in order that the BITCH can better discriminate among the levels of talent of today's black police applicants than is shown in our tables and figures.

The lack of even a *modest* positive correlation in Table 2 between the BITCH and any one of the three WAIS IQ measures, or any one of the 11 subtests, is disappointing. Had the BITCH correlated positively, for example, with a subtest such as Comprehension or Picture Arrangement, subtests that presumably are sensitive to individuals who are "street-wise," we could have inferred that a general intelligence factor akin to Spearman's or Wechsler's *g* is as present in the BITCH as is found in all other tests of general intelligence currently in use. Since no such modest correlations emerged we were led in other directions in our search for what the BITCH may be measuring. The data for our white subjects in Figure 2 suggest that the BITCH is sensitive to individual differences in prior experience with the black dialect and black experience among such white police applicants. Such racially relevant information about a white examinee is useful to a police department such as our own, which is committed to recruiting white officers with such experience. What perforce Williams and we and others who use this test must next demonstrate is that such street-wiseness and familiarity with the black dialect among whites is related to an external validational criterion that is fair to the BITCH. In a program of research such as ours, this might be the demonstration that *white* applicants who are hired distribute themselves by their subsequent on-the-job performance in police work, especially with minority or disadvantaged groups, in a manner that is correlated with (predicted by) their individual differences in scores on the BITCH.

No such validation data on the BITCH are presently available to us. At the moment, the data presented in the tables and figures of the present study permit us to conclude only that each of our black subjects, for all practical purposes, "hit the top" on the BITCH. This finding would seem to validate, in our setting, Williams' hope that his test samples the black experience, but the severe restriction of range

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tion and WAIS Full Scale IQ shown at the bottom of Table 2 for our two white samples. The cross-validated negative correlation also shown between education and score on the BITCH adds further confirmation that the BITCH reflects something akin to ghetto "street-wiseness," which for our black male, black female, and white female applicants is found more in subjects with fewer years of education than in those from the same sample who have more education.

in the current form of the test limits its usefulness as a selection instrument. Another conclusion from our findings is that whites both earn a lower mean score than blacks and also distribute themselves across a much wider band of individual differences than do blacks. The latter of these two findings would appear to be important to Williams' purposes and ultimate hope for the potential efficacy of his test.

Finally, for our college-educated samples of black and white police applicants, there is no concurrent validity for the BITCH when it is correlated with a well-known test such as the WAIS. Although this lack of concurrent validity against the WAIS is what Williams himself would have predicted (personal communication, 1976), it is still a conclusion whose full import for us must be examined on the basis of further research. To show that the BITCH taps individual differences in an applicant's street wiseness or "Ebonics" (i.e., that it is a subculture argot test measuring the degree of assimilation for a specific cultural pattern; see footnote 2) and yet be unable to demonstrate even a modest correlation between it and a well-researched test of measured intelligence such as the WAIS suggests that the BITCH is not a test of general intelligence for the top 50% of the range of the WAIS shown in Figure 1. In this early stage in the development of Williams' test, this lack of correlation could indicate that the BITCH is a more useful tool than the WAIS in a selection program such as ours; or conversely, this lack of correlation could just as readily suggest that the BITCH is insensitive to individual assessee dimensions that are important in selection.

Reference Notes

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Received March 24, 1976 ■