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ABSTRACT

Pluralistic diagnosis is a set of developed procedures which attempts to take sociocultural background into account in assessing the meaning of scores on standardized measures. This approach has developed as an outgrowth of findings from an epidemiology of mental retardation which have been conducted in the city of Riverside, California, over the past eight years. There are clinical and social criteria by which students are labeled mentally retarded. The study concludes by noting that a pluralistic diagnostic procedure involves securing information beyond that are ordinarily considered in clinical evaluation. The findings suggest that only persons in the lowest 3 percent of the population should be labeled as subnormals, and that information about adaptive behavior should be considered as well as intelligence test scores in making clinical assessments. Only persons who are subnormal both on the intelligence test and in adaptive behavior should be regarded as clinically retarded. (Author)

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Presented

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Author's Note: A more comprehensive and detailed analysis and report of the referral process, the clinical testing process, the assumptions and inferences of the clinician, and the pluralistic evaluation process discussed herein appear in a forthcoming volume entitled The Eligibles and the Labeled.

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characterize them. A person is categorized as "abnormal" when pathological symptoms are present and "normal" when there is an absence of pathological signs. On the other hand, the statistical model defines abnormality according to the extent to which an individual varies from the average of the population on a particular trait. Ordinarily, if an individual is more than two standard deviations above or below the mean for the population on which a measure was standardized, he is regarded as "abnormal." The clinical perspective regards mental retardation as an attribute of the individual. His symptomatology may exist as an entity regardless of whether it has been identified and labeled by significant others in his social milieu. The trained diagnostician with his clinical measures may detect abnormalities not apparent to lay persons.

This paper focuses primarily on findings from the clinical epidemiology which was based on the assumptions of the clinical perspective.

### Research Design for the Clinical Epidemiology

#### Definitions

The definition of mental retardation operationalized in the clinical epidemiology was that of the American Association for Mental Deficiency.

Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior (Heber, 1961).

This is a two-dimensional definition. Before a person may be diagnosed as mentally retarded, he must be subnormal in both intellectual performance and adaptive behavior. Evidence of organic dysfunction or biological anomalies is not required.

In the same document, "subnormal" is defined as performance on a standard measure of intellectual functioning which is greater than one standard deviation below the population mean, approximately the lowest 16% of the population (Heber, 1961). Educational practice generally places the dividing line somewhat lower. The highest IQ test score for placement in a class for the educable mentally retarded ranges between 75 and 79, depending upon local usage. This cutoff includes approximately the lowest 9% of the population. The test designers suggest a cutoff that more closely conforms with traditional definitions, an IQ below 70, approximately 3% of the population (Wechsler, 1958; Terman & Merrill, 1960). In the clinical epidemiology, all three cutoffs were used and the results compared.

#### Operations

Intellectual adequacy was measured in the clinical epidemiology by using standardized measures of intelligence, primarily the Stanford-Binet LM and the Kuhlman-Binet. We conceptualized adaptive behavior as an individual's ability to play ever more complex roles in a progressively widening circle of social systems. Because there are no generally accepted measures of adaptive behavior, we developed a series of 28 age-graded scales for this purpose drawing heavily on the work of Doll and Gesell, especially for the younger years (Doll, 1965; Gesell, 1948, 1956). Questions were answered by a respondent related to the person being evaluated.

#### Sample

The research design called for a first-stage screening of a large sample of the population of the community using the adaptive behavior

scales and then a second-stage testing of a subsample using standardized IQ tests. We called these samples the screened sample and the tested subsample, respectively.

The screened sample was a stratified area probability sample of 3,198 housing units in the City of Riverside, California, selected so that all geographic areas and socioeconomic levels in the city were represented in their proper proportion. The 46 interviewers were college educated, 36 were teachers. Spanish-speaking interviewers were assigned to all households with Spanish surnames, Black interviewers were assigned to interview in housing units located in predominantly non-White neighborhoods, and Anglo interviewers were randomly assigned the remainder of the households. In each household, one adult member, usually the mother, served as respondent and provided information about all other members of the household to whom she was related. Interviews were completed in 2,661 of the 2,923 occupied housing units, an overall response rate of 90.7%. In all, 6,907 persons under 50 years of age were screened.

There were 483 persons selected for individual intelligence testing on the basis of a disproportionate random sampling frame. Tests were completed on 423 persons for an overall response rate of 87.6%. Intelligence test scores were also secured from other sources for an additional 241 persons, making a total of 664 scores available. Each person in the tested subsample was assigned a weight according to the number of persons he represented in the larger, screened sample.

### Typology of Mental Retardation

A simplified version of our working typology of mental retardation

is shown in Table 1. The American Association on Mental Deficiency definition contains two primary symptoms--subnormality in intellectual performance and subnormality in adaptive behavior. Combinations of these two dimensions produce four major types of persons: the clinically retarded, the quasi-retarded, the behaviorally maladjusted, and the normals. The clinically retarded are those who are subnormal in both IQ and adaptive behavior. The quasi-retarded are those who are subnormal in IQ but normal in adaptive behavior. The behaviorally maladjusted are those who have normal IQs but are subnormal in adaptive behavior while the normals are those who pass both dimensions. In this paper we are concerned primarily with two categories in this typology, the clinically retarded and the quasi-retarded.

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 Insert Table 1 about here  
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### Findings and Conclusions

#### Suggested Cutoff Level for Subnormality

As noted earlier, three cutoff levels are currently used for defining subnormality--the American Association of Mental Deficiency proposes the lowest 16% of the population; educational usage defines the lowest 9% as subnormal; and traditional practice has been to define the lowest 3% as subnormal. We examined the impact of using each of these cutoffs.

Table 2 presents some of the behavioral characteristics of the adults in our sample who failed the traditional criterion, the lowest 3%, and compares them with adults who failed only the educational or the AAMD criteria. We found that the majority of the adults who were failing at a 9% or the

Table 1

## Typology of Mental Retardation

	Intellectual Performance	Adaptive Behavior
Clinically Retarded	Subnormal	Subnormal
Quasi-Retarded	Subnormal	Normal
Behaviorally Maladjusted	Normal	Subnormal
Normals	Normal	Normal

16% criterion were, in fact, filling the usual complement of social roles for persons of their age and sex: 83.6% had completed 8 grades or more in school; 82.6% had held a job, 64.9% had a semi-skilled or higher occupation, 80.2% were financially independent or a housewife, almost 100% were able to do their own shopping and to travel alone, and so forth. Differences between their performance and that of persons failing the traditional criterion differed at the .001 level of significance on 21 out of 26 of the comparisons made. It is clear that most adults who appeared in the borderline category were managing their own affairs and did not appear to require supervision, control, and care for their own welfare. Their role performance appeared neither subnormal nor particularly unusual.

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 Insert Table 2 about here  
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We found that rates for subnormality using only an IQ test score, ranged from 21.4 to 36.8 to 72.8 per 1,000 for the total population of the community at each successive criterion. When a two-dimensional definition was used, i.e. persons had to fail both IQ and adaptive behavior before being defined as clinically retarded, rates shrunk to 9.7, 18.9, and 34.7 per 1,000 for the total population at each criterion level. As shown in Table 3, there were significant differences by ethnic group and socioeconomic status. We found that rates for clinical retardation, using the two-dimensional definition, increased from 4.4 to 6.1 to 9.6 per 1,000 for the Anglo population but increased from 4.1 to 22.4 to 53.1 per 1,000 for the Black population and from 60.0 to 127.4 to 238.4 per 1,000 for the Chicano population. Similar disparities appeared for low status as



Table 2

Comparison of Behavioral Characteristics of Adults Scored as Retarded  
At the Three Criteria Levels Grouped in Mutually Exclusive Categories

Characteristics	Failed Traditional Criterion (Nw=59)	Failed Educational or AAMD Criterion (Borderline Retardates) (Nw=116)	Significance Level
<b>Educational-Intellectual Roles</b>			
% Completed 8 or More Grades	25.4	83.6	<.001
% Dropped--School Academic Reasons	35.6	0.0	<.001
% Trouble Learning in School	65.2	37.1	<.01
% Reads Newspapers	27.1	67.2	<.001
% Reads Magazines	6.8	72.4	<.001
% Reads Books	32.2	46.5	NS
% Reads and Talks about News	66.1	84.2	NS
<b>Occupational Roles</b>			
% Who Have Held a Job	54.2	82.6	<.001
% Semiskilled or Higher Occupation Status	14.3	64.9	<.001
% Financially Independent or Housewife or Student	62.7	80.2	<.001
<b>Family Roles</b>			
% Head of Household or Spouse of Head	69.5	78.4	NS
<b>General Community Roles</b>			
% Belongs to Social Clubs	11.9	33.3	<.01
% Votes in Elections	6.8	48.7	<.001
% Goes to Movies	35.6	89.7	<.001
% Works with Little Supervision	81.4	100.0	<.001
% Goes to Store Alone	67.8	96.3	<.001
% Travels Alone	69.5	96.3	<.001
<b>Informal Community Roles</b>			
% Writes Letters	50.8	92.6	<.001
% Attends Church	67.8	81.9	NS
% Visits Relatives Frequently	54.8	79.5	<.001
% Visits Neighbors Frequently	61.0	93.1	<.001
% Visits Friends Frequently	35.6	81.9	<.001
% Visits Co-Workers Frequently	45.9	76.6	<.001
% Plays Parlor Games	30.5	71.3	<.001
% Goes Dancing	40.7	45.7	NS
% Participates in Sports	13.6	58.6	<.001

compared to high status persons, regardless of ethnic group. Proportionately more low status persons and persons from minority ethnic groups are defined as clinically retarded as the cutoff level for subnormality is raised.

We compared the findings from our field survey with the actual labeling practices of clinicians in the community and found much higher rates from the field survey than from actual labeling practices when the 16% or the 9% cutoff was used. The greatest correspondence between field survey rates and rates of labeling occurred when the traditional 3% cutoff was used.

We concluded that the 3% cutoff, that is, IQ below 70 and adaptive behavior in the lowest 3% of the population, was the criterion most likely to identify those in need of special assistance and supervision and least likely to stigmatize as mentally retarded persons who would be filling a normal complement of social roles as adults. Persons scoring in the so-called "borderline" category should be regarded as low normals rather than as clinically retarded.

#### A One- or Two-Dimensional Definition?

Although the American Association of Mental Deficiency proposes the two-dimensional definition of mental retardation which we used in our study, in actual clinical practice most clinicians measure only intelligence in a systematic fashion when making assessments. We examined the probable consequences of clinicians using only an IQ test score rather than measuring both IQ and adaptive behavior in reaching a diagnosis of retardation.

First, we compared the social role performance of the quasi-retarded, i.e. those who failed only the IQ test, with the clinically retarded, school-aged child, i.e. those who failed both the IQ test and the adaptive

behavior scales. Among the primary differences between the two is that the clinically retarded are reported to have had more trouble learning, are more frequently behind the school grade expected for their age, have repeated more grades, and are more likely to be enrolled in special education classes. The quasi-retardate, in spite of his low IQ test score, has avoided falling behind his age mates or being placed in special programs. We found that 80% of the quasi-retarded adults had graduated from high school; they all read books, magazines, and newspapers; all had held jobs; 65% had white-collar positions; 19% had skilled or semi-skilled positions while 15.7% are unskilled laborers. All of them were able to work without supervision; participated in sports; traveled alone; went to the store by themselves; and participated in informal visiting with co-workers, friends, and neighbors. In other words, their social role performance tended to be indistinguishable from that of other adults in the community.

As shown in Table 3, there was a 54.7% shrinkage in the rate of mental retardation for the total population of the community, at the 3% criterion, when adaptive behavior was measured as well as IQ. However, the shrinkage varied by ethnic group and socioeconomic status. There was no shrinkage for Anglos. Everyone who had an IQ below 70 was in the lowest 3% in adaptive behavior. On the other hand, 60% of the Chicanos and 30.9% of the Blacks who had IQ test scores below 70 passed the adaptive behavior measure. Comparable results were found at the other two criterion levels. A similar pattern appears for socioeconomic status but is less pronounced than in the case of ethnic group.

The most important aspect of these figures is the finding that, at the 3% cutoff, the evaluation of adaptive behavior contributed little

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 Insert Table 3 about here  
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Table 3

Prevalence Rates for Clinical Retardation per 1,000 for Selected Subgroups  
 Comparing the Rates Using a One-Dimensional With Those  
 Using a Two-Dimensional Definition<sup>a</sup>

	Number Fail IQ	Rate per 1,000 Fail IQ	Number Fail IQ Pass A-B	% Shrinkage	Number Fail IQ Fail A-B	Rate per 1,000 Fail IQ Fail A-B
<b>Traditional Criterion (IQ 69- and Adaptive Behavior, Lowest 3%)</b>						
Total Population	150	21.4	82	54.7	68	9.7
Anglo	25	4.4	0	0	25	4.4
Chicano	100	149.9	60	60.0	40	60.0
Black	22	44.9	20	90.9	2	4.1
Deciles 1-3 (Low)	125	78.7	69	55.2	56	35.2
Deciles 4-7 (Middle)	20	7.0	11	55.0	9	3.1
Deciles 8-10 (High)	5	2.0	2	40.0	3	1.2
<b>Educational Criterion (IQ 79- and Adaptive Behavior, Lowest 9%)</b>						
Total Population	258	36.8	126	48.8	132	18.9
Anglo	48	8.4	13	27.1	35	6.1
Chicano	161	241.4	76	47.2	85	127.4
Black	49	100.0	38	77.5	11	22.4
Deciles 1-3 (Low)	188	118.3	86	45.7	102	64.2
Deciles 4-7 (Middle)	59	20.6	36	61.0	23	8.0
Deciles 8-10 (High)	11	4.3	4	36.4	7	2.8
<b>AAMD Criterion (IQ 84- and Adaptive Behavior, Lowest 16%)</b>						
Total Population	510	72.8	267	52.3	243	34.7
Anglo	135	23.5	80	59.2	55	9.6
Chicano	283	424.3	124	43.8	159	238.4
Black	88	179.6	62	70.5	26	53.1
Deciles 1-3 (Low)	273	171.8	125	45.8	158	99.4
Deciles 4-7 (Middle)	146	50.9	76	52.1	70	24.4
Deciles 8-10 (High)	91	35.8	75	82.4	16	6.3

<sup>a</sup> The total for the ethnic groups does not add up to the total population because there  
 were a few persons classified as "Other Ethnic Group" not reported in this table.

additional information to that provided by the IQ test for Anglos. However, evaluation of adaptive behavior was important in evaluating persons from ethnic minorities and lower socioeconomic levels--persons from backgrounds that do not conform to the modal social and cultural pattern of the community. Many of them may fail intelligence tests mainly because they have not had the opportunity to learn the cognitive skills and to acquire the knowledge needed to pass such tests. They demonstrate by their ability to cope with problems in other areas of life that they are not comprehensively incompetent.

We concluded that clinicians should develop a systematic method for assessing adaptive behavior as well as intelligence in making clinical assessments of ability and should operationalize the two-dimensional screening procedure advocated by the AAMD ten years ago.

#### Taking Sociocultural Factors Into Account in Clinical Assessment

Our third major conclusion was that the IQ tests now being used by psychologists are, to a large extent, Anglocentric. They tend to measure the extent to which an individual's background is similar to that of the modal cultural configuration of American society. Because a significant amount of the variance in IQ test scores is related to sociocultural characteristics, we concluded that sociocultural factors must be taken into account in interpreting the meaning of any individual score.

Specifically, we studied two different samples of persons to determine the amount of variance in IQ test scores which could be accounted for by sociocultural factors. The first group were the 100 Chicanos, 47 Blacks, and 556 Anglos from 7 months through 50 years of age for whom IQs were

secured in the field survey or in the agency survey and for whom we also had information on the sociocultural characteristics of their families. Eighteen sociocultural characteristics were dichotomized so that one category corresponded to the modal sociocultural configuration of the community and the other category was nonmodal. IQ was used as the dependent variable in a stepwise multiple regression in which the 18 sociocultural characteristics were used as independent variables. The multiple correlation coefficient for this large heterogeneous sample was .50 ( $p < .001$ ), indicating that 25% of the variance in the IQs of the 703 culturally and ethnically heterogeneous individuals in this group could be accounted for by sociocultural differences.

In a similar analysis, 1,513 elementary school children in the public schools of Riverside were studied using 13 sociocultural characteristics of their families as independent variables and Full Scale WISC IQ as the dependent variable. The 598 Chicanos and 339 Black children in the sample included the total school population of the 3 segregated minority elementary schools which then existed in the district. The 576 Anglo children were randomly selected from 11 predominantly Anglo elementary schools in the district. The multiple correlation coefficient was .57, indicating that 32% of the variance in the IQs of this socioculturally heterogeneous group of elementary school children could be accounted for by differences in family background factors. Sixty-eight percent of the variance was residual, that is, unaccounted for.

Not only did sociocultural characteristics account for a large amount of the variance in IQ test scores in the large samples which combined all three ethnic groups, but they also accounted for a large amount of the variance in IQ within each ethnic group. A series of stepwise multiple

regressions were run for Chicanos and Blacks, separately, using IQ as the dependent variable and sociocultural variables as the independent variables. Table 4 presents the results of these analyses.

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 Insert Table 4 about here  
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The first set of correlations presents the findings for the 100 Chicanos in the field survey. Eighteen sociocultural variables were correlated .61 with IQ and accounted for 37.2% of the variance in the measured intelligence of this group. The five sociocultural characteristics most significant in the stepwise regression were: living in a household in which the head of household has a white-collar job; living in a family with five or fewer members; having a head of household with a skilled or higher occupation; living in a family in which the head of household was reared in an urban environment and was reared in the United States.

There were 47 Blacks in the field survey for whom we had information on all variables in the analysis. Findings on such a small number are less reliable, but the multiple correlation coefficient between IQ and sociocultural characteristics was .52, accounting for 27% of the variance in IQ test scores. The five best indicators were: having a mother reared in the North; having a head of household with a white-collar job; having a male head of household; living in an intact family; and living in a family which is buying its own home.

For the elementary school children, all 17 variables were correlated .39 with Full Scale IQ for Chicano children and .44 with Full Scale IQ for the Black children. This means, that sociocultural characteristics could account for 15.2% of the variance in the IQ test scores of Chicano

Table 4  
Sociocultural Component of IQ for Chicanos and Blacks

Sociocultural Variable <sup>a</sup>	Field Survey		Full Scale WISC: Children 6-14 Years				
	Chicanos (N=100) R %	Sociocultural Variable <sup>a</sup> in North	Blacks (N=47) R %	Sociocultural Variable <sup>a</sup> Per Room	Chicanos (N=598) R %	Sociocultural Variable <sup>a</sup> 1-5 In Family	Blacks (N=339) R %
	Variance		Variance		Variance		Variance
Head White-Collar	.37 <sup>c</sup> 13.7	Mother Reared in North	.27 <sup>b</sup> 7.3	Less than 1.4 Per Room	.24 <sup>c</sup> 5.8	1-5 In Family	.21 <sup>c</sup> 4.4
1-5 In Family	.43 <sup>c</sup> 18.5	Head White-collar	.33 <sup>b</sup> 10.9	Mother Expect Some College	.32 <sup>c</sup> 10.2	Mother Expect Some College	.30 <sup>c</sup> 9.0
SES Index Head 30+	.47 <sup>c</sup> 22.1	Head Male	.35 12.3	Head 9+ Years Education	.34 <sup>c</sup> 11.6	Head Married	.35 <sup>c</sup> 12.2
Head Reared Urban Area	.49 <sup>c</sup> 24.0	Nuclear Family	.38 14.4	English All or Most of the Time	.36 <sup>c</sup> 13.0	SES Index Head 30+	.39 <sup>c</sup> 15.2
Head Reared In U.S.	.54 <sup>c</sup> 29.2	Own Home	.41 16.8	Own Home	.37 <sup>c</sup> 13.7	Own Home	.41 <sup>c</sup> 16.8
Total - 18 Variables	.61 <sup>c</sup> 37.2	Total - 17 Variables	.52 27.0	All 17 Variables	.39 <sup>c</sup> 15.2	All 16 Variables	.44 <sup>c</sup> 19.4

<sup>a</sup> All sociocultural variables are stated in the direction of sociocultural modality.

<sup>b</sup> Significant at the .05 level of significance.

<sup>c</sup> Significant at the .01 level of significance.



children and 19.4% of the variance in the IQ test scores of Black children.

In brief, Chicano elementary school children with higher IQ test scores tend to come from less crowded homes and have mothers who expect them to have some education beyond high school. They have fathers who were reared in an urban environment (over 10,000 population) and who have a ninth grade education or more. They live in a family which speaks English all or most of the time and is buying its home. Black children with the highest IQs also come from families that have characteristics similar to those of the modal configuration of the community. They come from families with less than six members; have a mother who expects them to get some college education; have parents who are married and living together in a home which they either own or are buying; and have a father who has an occupation rated 30 or higher on the Duncan Socioeconomic Index (Reiss, 1961). Thus, the more the family is like the modal sociocultural configuration of the community, the higher the IQs of Black and Chicano children on the WISC. Clearly, sociocultural factors cannot be ignored in interpreting the meaning of a standardized intelligence test when evaluating the child from a non-Anglo background. The tests are measuring, to a significant extent, sociocultural characteristics.

#### Developing a Sociocultural Index for Classifying Children by Family Background

The findings from the multiple regression were used to group each Black and Chicano elementary school child who was given the WISC into one of five groups according to the extent to which his family background conformed to the modal configuration for the total community of Riverside. Each child was given one point for each family background characteristic which

was like the dominant society on the five primary sociocultural variables related to Full Scale IQ for his ethnic group. If his family was similar to the modal configuration on all five characteristics, he received a score of five. If his background was similar to the dominant configuration on four characteristics, he received a score of four, and so forth. The average IQ test score for children in each sociocultural grouping is shown in Table 5.

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 Insert Table 5 about here  
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The drawings in Figures 1 and 2 present the picture even more clearly. The drawings in Figure 1 depict the scores of Chicano children in the various sociocultural groupings and compare them with the distribution of scores for children on whom the test was standardized. The average IQ for the entire group of Chicano children was 90.4, approximately two-thirds of a standard deviation below the mean for the standardization group. The 127 children from backgrounds least like the modal sociocultural configuration of the community, having 0 or only 1 modal characteristic, had an average IQ of 84.5, borderline mentally retarded by the American Association of Mental Deficiency criterion. The 146 children with 2 modal characteristics in their background had a mean IQ of 88.1, those with 3 modal characteristics a mean IQ of 89.0, those with 4 modal characteristics a mean IQ of 95.5, and those with all 5 modal characteristics had a mean IQ of 104.4. When social background was held constant there was no difference between the measured intelligence of Chicano and Anglo children.

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 Insert Figures 1 and 2 about here  
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The situation is just as dramatic for Black children. The total group of 339 Black children had an average IQ of 90.5 when there was no control

Table 5

Mean IQs for Sociocultural Modality Groups Based on Variables Found Significant in Two Samples

		High	5	4	3	2	1-0	Low
<b>Chicano Children</b>								
	Children's Sample Variables	Number	25	174	126	146	127	598
	Mean		104.4	95.5	89.0	88.1	84.5	90.4
	Standard Deviation		10.4	12.1	11.8	11.6	11.3	12.7
<b>Black Children</b>								
	Children's Sample Variables	Number	17	68	106	101	47	339
	Mean		99.5	95.5	92.8	87.1	82.7	90.5
	Standard Deviation		12.1	11.3	11.0	10.5	11.4	12.0

Figure 1

Convergence of the Average IQ Test Scores of Chicano Children with the Standard Norms as Sociocultural Factors are Increasingly Controlled

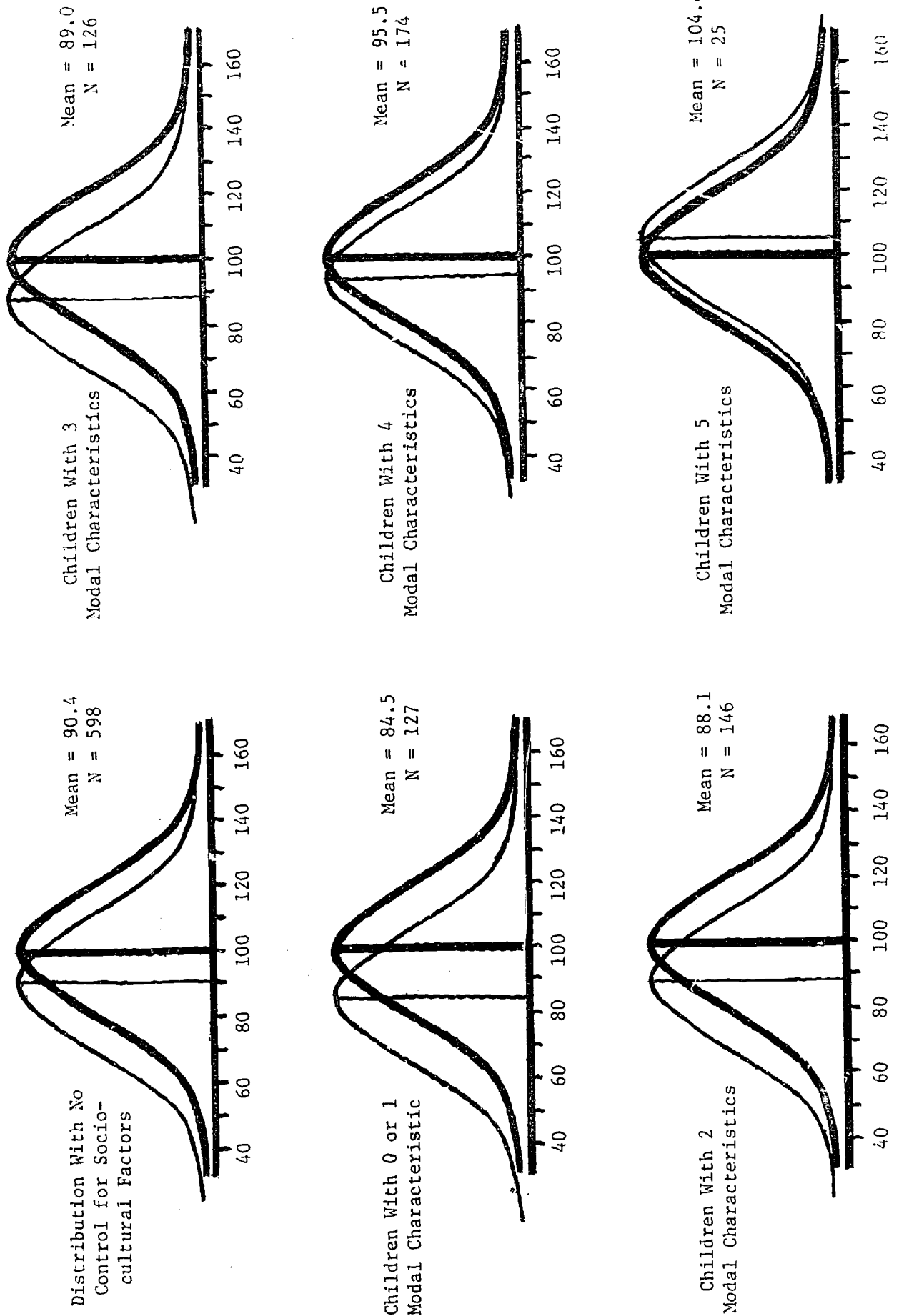
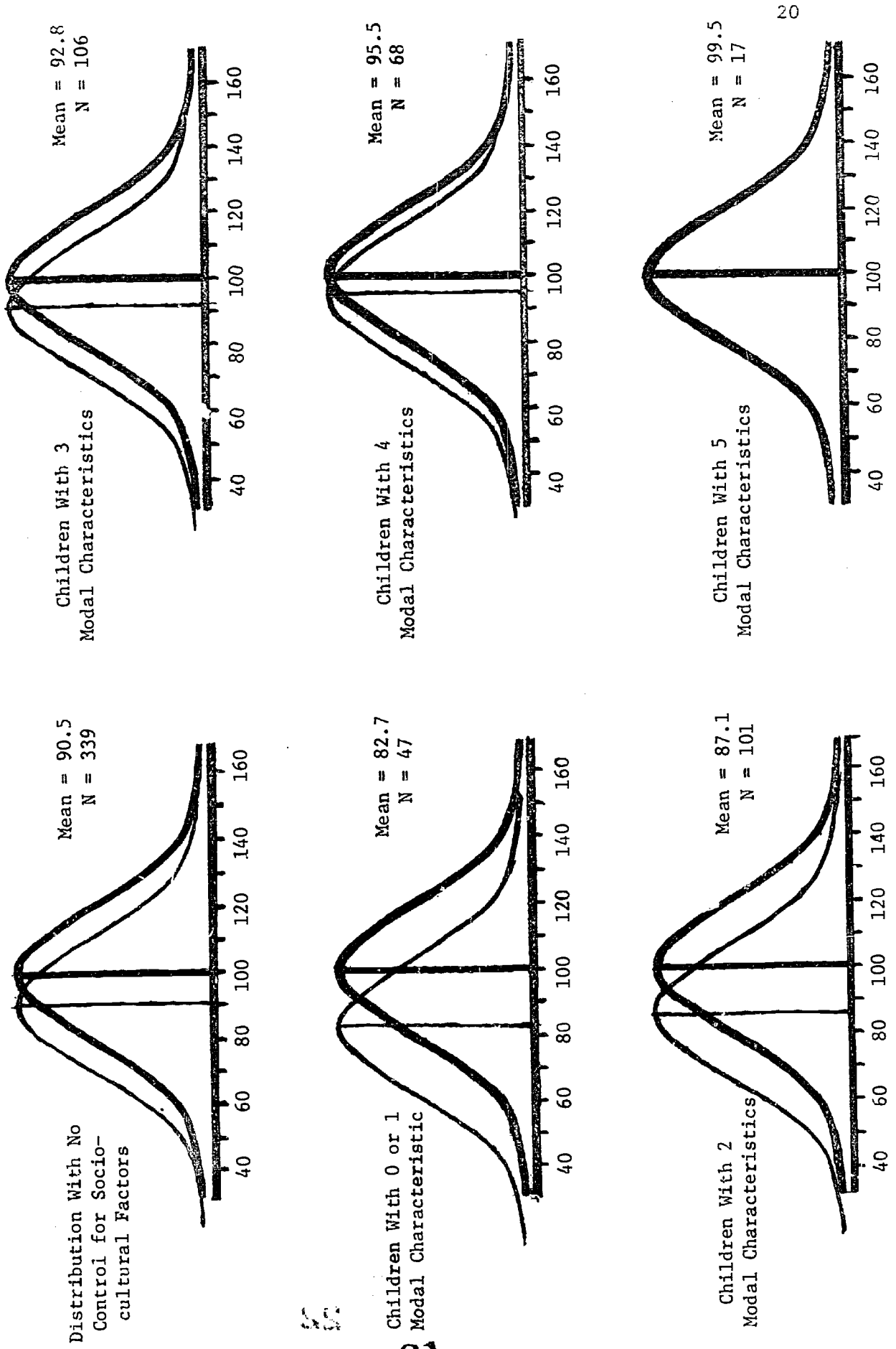


Figure 2

Convergence of the Average IQ Test Scores of Black Children with the Standard Norms as Sociocultural Factors are Increasingly Controlled



Distribution With No Control for Sociocultural Factors

Mean = 90.5  
N = 339

Children With 3 Modal Characteristics

Mean = 92.8  
N = 106

Children With 0 or 1 Modal Characteristic

Mean = 82.7  
N = 47

Children With 4 Modal Characteristics

Mean = 95.5  
N = 68

Children With 2 Modal Characteristics

Mean = 87.1  
N = 101

Children With 5 Modal Characteristics

Mean = 99.5  
N = 17

for sociocultural factors. The 47 children who came from backgrounds least like the modal configuration of the community had an average IQ of 82.7. Those with 2 modal characteristics had an average IQ of 87.1. Those with 3 modal characteristics had an IQ of 92.8, those with 4 characteristics an average IQ of 95.5, and those with 5 characteristics an average IQ of 99.5, exactly at the national norm for the test. Thus, Black children who came from family backgrounds comparable to the modal pattern for the community, did just as well on the Wechsler Intelligence Scale for Children as the children on whom the norms were based. When sociocultural differences were held constant, there were no differences in measured intelligence.

#### Pluralistic Diagnosis in the Evaluation of Black and Chicano Children

One underlying premise of our approach to assessment is that there should be convergence between social definitions and clinical definitions. Specifically, this means that, in so far as possible, clinical procedures should not be labeling persons as "abnormal" who are regarded as "normal" by other persons in their social group or persons who are filling the usual complement of social roles typical of persons of their age and sex. A second premise of our approach is that, given the large amount of variance in IQ test scores which can be accounted for by sociocultural factors, sociocultural factors should be taken into account when interpreting the meaning of a particular set of clinical measures.

A pluralistic, sociocultural perspective would evaluate each child in terms of two frameworks simultaneously--the standardized norms for the test and the norms for the sociocultural group to which he belongs. His

position on the standardized norms indicates his probability of succeeding in a regular class in the American public school system as it is now constituted. His position in the distribution of scores of other children from similar sociocultural backgrounds, children who have had approximately the same opportunity to acquire the knowledge and skills needed to answer questions on an intelligence test designed for an Anglo American society, will provide a more accurate indication of his potential for learning if enrolled in appropriate educational programs. If a child scores more than one standard deviation above the mean for his sociocultural group, then he probably has high normal ability, even if his actual IQ is 100--average by the standard norms of the test. Conversely, a child who achieves a score of 75 on an IQ test when he comes from the least modal sociocultural background is within the normal range for persons, like himself, who have had little exposure to the cultural materials needed to pass the typical intelligence test. His educational program should be planned on the assumption that he is a person with normal learning ability who may need special help in learning the ways of the dominant society.

#### Summary

To summarize, a pluralistic diagnostic procedure involves securing information beyond that ordinarily considered in clinical evaluation. Our findings suggest that only persons in the lowest 3% of the population should be labeled as subnormals. Our findings also suggest that information about adaptive behavior, an individual's ability to cope with problems in the family, neighborhood, and community, should be considered as well as his

score on an intelligence test in making clinical assessments. Only persons who are subnormal both on the intelligence test and in adaptive behavior should be regarded as clinically retarded.

Finally, the meaning of a particular IQ test score or adaptive behavior score should be assessed not only within the framework of the standardized norms for the general population but should also be evaluated in relation to the sociocultural group from which the person comes.

When we re-analyzed the survey data from the field survey of the clinical epidemiology using these pluralistic diagnostic procedures, differences between rates for mental retardation between ethnic groups disappeared. Approximately the same percentage of persons were being identified as clinically retarded from each ethnic group. When we re-diagnosed 268 children who were in classes for the educable mentally retarded in two school districts in southern California using pluralistic diagnostic procedures, we found that approximately 75% of the children in those classes would not have been placed in special education if their adaptive behavior and sociocultural backgrounds had been systematically taken into account at the time of assessment. When they were taken into account, the proportion of children diagnosed as mentally retarded from each ethnic group was approximately the same as the proportion of children from that ethnic group in the total public school population.



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