The paper examines the need for sex-fairness efforts for minority women (particularly black women), and relates those needs to the measurement of vocational interests. Much data is presented portraying the black woman as more likely to enter the labor force, more interested in doing so, more likely to work full time and continuously, and more necessary to the financial welfare of her family than her white counterpart. It is equally true that black women choose occupations traditional for women, are motivated perhaps more by a sense of responsibility than by achievement need, are much more traditional in their sex-role attitudes; thus, concern for the occupational options of white women can be no less directed towards them than towards any other women. An examination is presented of some of the technical aspects of the problem of preparing assessment instruments for minority group examinees in order to emphasize the need for further work in this area. The basic contention is that there may be a discontinuity or mis-match between the interest structures developed from the background of minority females and those possessed by the criterion groups used to validate an interest scale. (Author/AJ)
THE CONSIDERATION OF RACE IN EFFORTS TO END SEX BIAS

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The fundamental issue underlying the present effort of the National Institute of Education's Career Education Program is increasing opportunities for women. "Women", however, are a nonhomogeneous group, and it has seemed inappropriate to proceed as if age, race, and socio-economic class are nonsignificant differences. When differences as powerful as these are ignored, it has usually been to the detriment of those who are not of the majority. Thus, it has appeared necessary to examine different kinds of women. It is only an assumption that efforts to decrease sex bias are equally necessary for all women, an assumption that such efforts should be identical and that such efforts would be equally effective. The purpose of the present paper is to examine the need for sex fairness efforts for a particular group of women, and to relate those needs to the...
measurement of vocational interests. It was originally intended that all minority women and women of different classes would be discussed in this paper. That charge proved to contain the same fallacy cited above: just as all women are not alike, nor are all minority women alike. To attempt to treat them in a single paper, and to include what we know of the effect of class upon occupational aspiration and attainment seemed inappropriate, if not impossible. The paucity of information about Mexican-Americans, Puerto Ricans, American-Indians and Asian-Americans not withstanding, the women who comprise these groups deserve a treatment of their special status difficult to incorporate in a single paper. (It was of interest to these reviewers that where comparative studies included these groups, sex was rarely examined.) The scope of the paper has thus been delimited: major focus shall be directed towards black women, with findings pertinent to other minorities discussed where appropriate and available.

Some could argue, including many blacks, that black women are not in need of the same restitutive efforts required for white women. A number of authors (e.g. Moynihan, 1965; Bernard, 1966; Bock, 1971) have pointed to the black women's "unnatural superiority" in education and
employment in comparison to the black man. Mednick and Weston (1972) found less fear of success amongst black than amongst white women, and Epstein (1972) suggested, in her study of black professional women, that the double negative status might be facilitative, in that each of the negatively valued statuses of black and female may cancel the effect of the other. Yet, other data suggest the black woman suffers from the double negative status: she earns less, for instance, than all other men (including black men) and less than any other group of women. This paper shall seek to explore such possible inconsistencies. Accordingly, the following shall be examined: a) the status of minority women in the world of work; b) comparative aspirations of black and white women; c) career expectations and preferences; d) occupational choice; e) motivation within black women; f) sex-role attitudes; and g) interest inventories with respect to minority women (norming procedures and perceptions of inventories). A composite portrait shall be attempted from which generalizations and recommendations with respect to interest inventories shall be drawn.

Minority Women and the World of Work

Of white women 16 years of age and over, 40.6% were in the 1970 labor force, while 38% of Spanish heritage women participated, and 47.5% of blacks. (US. Summary; Detailed
Characteristics, 1970 Census). Hill (1971) found that in black families, 65% of the female spouses worked full or part time, whereas the comparable figure for white female spouses was 44%. Moreover, though 26% of black wives in two parent families worked full time, only 6% of white wives were so employed. Clearly, black women enter the work force in larger numbers than do their white counterparts.

If the participation of black women in the labor market is proportionately high, their remuneration is absolutely low. Black women earn less than any ethnic group, male or female.

[Insert Table 1 here]

In 1969, the median income of black families with both husband and wife employed was $7,782, whereas the median income of white families with only one earner was $8,450 (Hill, 1971). Clearly, the earnings of black women, though low, are more crucial to the well-being of their families than are the earnings of white women.

Finally, the demographic picture of the working nonwhite woman is more fully sketched by examining the occupations she and her white counterpart have assumed. The occupational status of white and nonwhite women for the years 1910, 1960 and 1970 is presented in Table 2. Whereas 90% of nonwhite women were agricultural laborers, domestics or service workers in 1910, 35.4% of white women were so employed.
Though the proportion of nonwhite women filling low level occupations has diminished during the last half century, nonetheless, almost half the nonwhite women were employed in such occupations during 1970, in comparison to one fifth of the white female labor force.

[Insert Table 2 about here]

Proportionately to white women, however, black women have made greater strides in becoming members of the professional, managerial, and technical class. From a representation of 1.5% in 1910 the percentage has increased to 10.0% for 1970. The concomitant increase amongst whites has been from 11.6 to 15.5%. However, black women hold more traditionally feminine jobs within the professional ranks: in 1970, 54% of black women were employed as teachers, as compared to 39% of whites (Sorkin, 1972), and their dispersion amongst other professions was lower than was that of the majority group (Bock, 1971).

Levels of Aspiration

As a recent reviewer of the literature on occupational aspirations has noted (Kirkpatrick, 1973), the interaction of race, age, social class, sex and geographic locale complicates the picture of racial comparisons; the failure of investigators to consistently control for these variables has produced a body of research from which it is difficult to draw generalizations. The following section shall briefly
review two kinds of recent aspiration research: a) those studies in which sex differences were apparently not examined, and b) studies in which sex of respondent has been controlled. The former are cited in part for the rare comparisons they provide of several minority groups. Only those studies which have controlled for class will be considered.

**Studies Which Fail to Control for Sex of Respondent**

Crosby (1971) drew a sample of 5,992 black and white 10th grade students in the deep South so as to obtain a heterogeneous group with respect to social class. He found that whites had higher levels of aspiration when class was not controlled, but that within similar socioeconomic groups blacks displayed higher levels in the majority of comparisons.

Though not stated, Phillips (1972) probably drew his Mexican-American, white, and black fourth grade subjects from the Southwest. The investigator measured both desires for academic achievement and for peer and teacher acceptance. Blacks were found to have the highest hopes for social acceptance and academic achievement, while Mexican-Americans, like upper lower class whites, appeared to want social acceptance more than they wanted academic recognition. Middle class whites wanted achievement recognition more than social acceptance. One of the weaknesses of this interesting study is the author's apparent failure to measure class amongst the
black and Mexican-American subjects. Bell (1965) found that two groups of black mothers both classified as lower class held significantly different educational and occupational aspirations for their children, on the basis of their relative class positions. (Though both groups were lower class, one group was of a higher status than was the other.) Thus class differences, at least within the black group, appear to be important determiners of aspiration even when the class differences are small.

An investigation of Mexican-American, whites and blacks living on the West Coast provides partial support for Phillips' findings. Hindelang (1970) found that black fourth, fifth, and sixth grade pupils gave higher educational aspirations than did whites (92% vs. 85% said they wished to finish college), or Mexican-Americans (71%). The investigator attributes some of the racial difference in aspiration to differences students perceived amongst their parents in the latter's desire to have them attend college. Mexican-Americans expressed the lowest (53%) perception of their parents wish to see them receive a college education. The lack of significant differences between the three groups, with respect to jobs they wished to acquire, suggested that blacks desired more education than was necessary for their educational aspirations. It should be noted that it is not uncommon for blacks to be overeducated for the work they actually perform.
Interestingly, only black children believed their teachers were prejudiced against members of their racial group. Even if the Mexican-American children should have erred, these findings suggest that they are psychologically less burdened by the effects of racism than are black children.

The only study within this group to find whites' aspirations higher than those of other minority groups was reported by Antonovsky (1967). In a Northern metropolis he found white middle-class children had higher aspirations and expectations than did middle-class black or Puerto Rican children, or than lower class children of the white, black or Puerto Rican groups. Lower class Puerto Rican children obtained the lowest levels.

Studies which Control for Sex Differences

Amongst those studies investigating sex differences, Carter, Little, and Barabasz (1972) found neither sex, nor race distinguished the aspirations of black and white seventh and eighth graders (Students were enrolled in the University College Buffalo Campus School.). Social class served as a covariate. Thorpe (1969), who also controlled for class, found that both race and sex determined aspiration, with black girls expressing higher aspirations than white girls or black boys. The sample was composed of 1493 North Carolina high school students.

Finally, in a study more sophisticated than most in
this area, Picou (1973) attempted to develop a causal model of aspiration which related social class, academic performance and sex to occupational aspiration. The sample was composed of 915 Louisiana youth classified as "rural", which was in fact a subsample of a proportionate, stratified, random cluster sample of high school seniors. Using a statistical technique which is a variant of multiple regression analysis, he found academic performance exerted the strongest effect upon occupational aspirations for both blacks and whites. Interestingly, while the socioeconomic variables of father's occupation and education manifested the largest correlations with aspirations for the white sample, for blacks family income was more highly correlated with aspiration. (This attests to the centrality of the black mother's employment, certainly for the economic benefits which accrue, but perhaps for other, more psychological benefits as well.) Mean aspiration scores were highly similar for black and white youth. Finally, the model which related socioeconomic factors, sex and academic performance to aspiration accounted for the formation of occupational aspirations of white youth more successfully than of black. While for white youth 22% of the variance was accounted for by these factors, the same variables accounted for only 8.5% of the occupational aspiration variance of black youth. Clearly, other variables determine aspirations for both blacks and whites, but this is
particularly the case for blacks. The possibility of different motivational structures for the two groups shall be examined elsewhere in this paper.

Summary

Four of the seven studies reported above found educational and/or occupational aspirations higher for blacks than for whites, where socioeconomic status was controlled. It is clear, then, that to whatever extent hopes and desires determine occupational attainment (and there is some indication the relationship is weak) it is not the absence of wanting which denies blacks equitable employment levels. However, for Puerto Ricans and Mexican-Americans, and the lower classes of all racial groups, lowered aspirations, particularly for academic recognition, may be a detriment to the attainment of certain kinds of jobs.

It appears to these reviewers that research has amply demonstrated comparable levels of aspiration, and that few additional studies are warranted, at least if the targets of comparison are blacks and whites. Even for Mexican-Americans and Puerto Ricans, however, it seems unlikely that insufficient striving is a major reason for occupational inequities. Rather, occupational attainment and its antecedents appear more in need of exploration than does occupational striving. Certainly there is implicit within such investigation that failures of attainment are being attributed more to the
"victim" than to those institutions—unions, industry and schools—which have brought about his victimization. Nevertheless, it would be naive to deny that racism has been effective in producing some of those very psychological characteristics which are then used as evidence of inferiority and unemployability.

Thus, it is important that research come to include those intervening variables which may mediate occupational aspiration and attainment. Picou (1973) provides interesting data with respect to academic performance. Another variable of importance is undoubtedly that of locus of control. Gurin and Katz (1966) found that a sense of high personal control was related to aspiring to occupations which were more demanding of ability, which were more prestigious, and for men, were less traditional for blacks. Lao (1970) found that black students with higher personal control scores performed better academically, were more academically confident, and had higher educational expectations. Interestingly, Beasley (1967) found white students believed their occupational choices were a function of their personal preferences, whereas black students apparently believed choices were beyond their control. Without attempting to adequately review the internal-external control dimension in relationship to aspiration, and more importantly, in relationship to occupational attainment, it becomes clear that this variable is a significant one in determination of occupational choice, and,
Life Career Expectations and Preferences

The first question asked was the broad one of whether black and white women resembled one another with respect to their stated desires and expectations for work. Inspection of data from three sources revealed significant differences in a) desires for employment, b) realistic expectations, and c) projected employment patterns. Information about what the two groups of women wanted was derived from Fichter (1967) and Kuvlesky and Obordo (1972). (See Table 3) Though the two studies reveal different patterns of response within each racial group, it is nonetheless striking that the proportion of black women who wished to combine full time employment with the traditional roles of wife and mother was roughly twice that of white women who desired this option, irrespective of investigator. Concomitantly, the ratio of white to black women who wished to be homemakers was almost 2:1 in both samples.

[Insert Table 3 about here]

It is possible that the differences between the two studies derive from the populations sampled. Kuvlesky and Obordo administered questionnaires to high school sophomores in three rural, largely low income counties of Texas. One might speculate that the age of the subjects, their place of residence and their socioeconomic status would mitigate
against career strivings. Fichter's population of southern college graduates was older, undoubtedly more urban, and probably of higher social status. (Though the social class of black college students is lower than that of white college students, Gurin and Katz (1966) found the educational and occupational levels of their 4000 black students higher than those of a comparison group of southern and national non-whites.) Thus, that 47% of black college seniors desired full time employment and families while only 27% of black, rural, high school students wanted this combination seems reasonably accounted for by those value differences which are associated with region, age, and class. Both black and white women seemed to respond to those influences, which depressed the scores of Kuvlesky and Obordo's sample, but did not change the ratio of black to white responses.

[Insert Table 4 about here]

The pattern for career expectations parallels that for aspirations. Examination of Table 4 reveals that in three of the four studies cited, three times as many black women expected to work full time while raising children (in Fichter's study the ratio was 2:1) and similarly, in three of the four studies two times as many white women expected to be homemakers.

The differences in employment preference and expectation between black and white women are not simply a function
of a greater desire to work on the part of black women: What is apparent is a difference in the pattern of employment. White women want and expect to absent themselves from the labor market while they have children: 50 and 55% of the white respondents in Fichter's report, and 61% of the white subjects in Kuvlesky and Obordo's study preferred this pattern. Only 29% of the black women in the former study and 36% in the latter chose this option.

Given the nature of these differences, some mention might be made of the respective subjects' attitudes towards children. It was not that black women wanted children less: Kuvlesky et al. found no differences in the desired number of children between blacks and whites, and Fichter found black men and women expressed a greater desire to have children than did whites of either sex. [Though these were stated desires it should be noted that black women with four years or more of higher education have the lowest fertility rates of any group of women, including women with similar educational backgrounds (Jackson, 1973). This low rate may be due in part to the low ratio of black men to black women; while there were 95.3 white males to every 100 white females in 1970, the corresponding ratio for black men and women was 90.8 men. Accordingly, in 1970 there were more single, divorced and widowed black women than white (Jackson, 1971).]

Since the concern here is with attitudes, it seems safe to
conclude that black women believe the roles of wife and mother are more compatible with occupational roles than do white women.

Occupational Choices: The First Paradox

Given the above described black pattern of preferences and participation in the labor force, one might predict similar nontraditionality in occupational choices. In comparison to white women, precisely the opposite occurs. Before examining these data let us consider some myths. Much has been made of the black woman's professional role since Moynihan (1965). Bock (1971) in support of Jessie Bernard's notion of "unnatural superiority" of the black woman, points out that black women constituted 60.8% of the black professional class in 1960 whereas white women constituted only 37.2% of the white professional group. Thus, in comparison to black men, proportionately more black women were physicians and surgeons, lawyers and judges, accountants and auditors, than were white women in comparison to white men. This greater representation has occasioned considerable debate over what should be done about the black woman's greater "progress" in relation to her man. Whether this concern is motivated by sexist or racist reasons, it is misplaced. The point is that black men are so woefully underrepresented in the professions, not that black women are overrepresented. In fact, in 1970 only 10% of black women in the labor force were professionals, while
15.5% of white women were so designated. Further, the earnings of nonwhite women were still only 60% those of nonwhite men in 1970, though this relationship might not hold at the professional level.

It is possible that black women have encountered less job discrimination than black men, particularly at professional levels of employment. For instance, Sorkin (1972) points out that though the educational gains of black men and women were comparable from 1952-1970 (3.9 years and 4.0 years respectively), black men in comparison to white men lost ground at the professional and managerial levels during this same period (Bock, 1971). And, while the incomes of highly educated black women actually exceed those of highly educated white women (in 1970, according to Sorkin, black women with 16 years or more education earned 129% as much as white women at that level), the incomes of black men are less than those of white men at all levels of schooling.²

It would seem not so much that the black woman’s professional representation is superior, but that the black man’s professional representation is inadequate. The "superiority" of black women is finally called into serious question when the nature of her professional participation is examined.

Within the professional class, black women are concentrated in fewer professions than are black men, white women
or white men. Not only is their dispersion smaller, the occupations which they hold are traditionally more feminine than are those of any other group. About 54% of black professional women are teachers (Sorkin, 1972, Ginsberg and Hiestand, 1966) in comparison to about 39% of white women. Summarizing the occupational choices of the Gurin and Katz 1966 sample of black college women, these reviewers found 88% were choosing such traditional fields as elementary and secondary school teaching, clerical jobs, nursing, and occupational therapy. Berman (1972) obtained occupational choices of 545 black, Puerto Rican, Chinese and white female graduates of a public high school in New York City. In that study we found occupations traditional for women had been chosen by 73.5% of the black students, 78% of the Puerto Rican, 52% of the Chinese, and 66.8% of the white. Though the non-traditionality of Chinese occupational choices is noteworthy, the traditionality of black choices supports what has been reported elsewhere. (Findings with respect to the Chinese women should not be construed to mean that they are not subject to the same constraints as are other women. Asian-American women feel their culture grants them less freedom than is accorded the white woman. Their choices reflect cultural patterns which obtain even more for men than for women. [See Journal of Social Issues, 29, 1973]) Even more illuminating of the constraint which sex
manifests upon occupational choice for black women are the findings of Gurin and Katz with respect to the correlates of what it was that made an occupation desirable. A subsample of same sexed peers rated the desirability of the various occupations. Amongst black males, the choice of what was desirable occupationally tended to be related to how demanding of ability the occupation was (.64), to how difficult it would be for a black in comparison to a white to enter the occupation (.58) and to how nontraditional the occupation was for blacks (.61). However, amongst the girls, occupations which had been deemed desirable were negatively related to the same variables. Thus, for girls, a desirable occupation was one which was not demanding of ability (-.31), not difficult for a black to enter (-.12) and less traditional (-.16). Thus, if choices that are deemed desirable by like-sexed peers are considered "role-appropriate" choices, the picture emerges that for a girl to have high aspirations, to choose a non-traditional occupation or one demanding a great deal of ability, simultaneously means she is making an "inappropriate" choice for a woman. High aspiration in the occupational area seems to be inconsistent with femininity... [Gurin and Katz, 1966, p.97].

Finally, Gurin and Katz found that "...most high status (social class) characteristics seem to encourage conventional
but undemanding occupational aspirations for girls (p. 109)."

This constriction of choice appears to begin early, as the women initially considered fewer occupations which were demanding, nontraditional and prestigious than did the males. They also made their choices earlier, and were more certain of them. These data are congruent with the investigators' findings that women thought a career would be less important after college than did men, and they gave little thought about advancement or career development.

It is not clear to the reviewers whether young black women are more constricted in their occupational desires than are young white women. We know that in fact they enter fewer occupations, but Fichter (1967) found high similarity between his black and two white samples in occupational choice, with 65% of the blacks and 60 and 63% of the whites choosing education or social work. Gurin and Katz concluded that black girls in their sample were highly similar to women generally. Whether more constricted or not, it is clear that they are no less constricted than are their white counterparts, in spite of their stronger work orientation. The paradox, then, is that though black women are not so constricted in their conception of the feminine role, in that they see marriage and childrearing as compatible with employment, they nonetheless seem to be at least as constricted as white women in their conception of what occupational roles are appropriate for them.
Some Notes on Motivational Antecedents in Black Women

No attempt shall be made to fully review the motivational literature extant with respect to black women. The discussion shall rely primarily upon the work of Turner (1972) and Gurin and Katz (1966). Briefly, the latter found that the achievement orientation within men was positively related to aspirations which were demanding of ability and which were prestigious. When women aspired for jobs demanding of high ability, they did so for much the same motivational reasons as did the males. But, as pointed out above, fewer women so aspired. Thus, while the investigators believed it unnecessary to postulate a different set of motivational factors for women and men, it is clear that more of the variance of the women's actual occupational choices might have been accounted for had additional variables been included within the research.

Turner (1972) suggests what some of these variables might be. In her study of 28 black and 45 white female sophomores attending the University of Massachusetts, she identified high and low career expectation groups within both races. For each race independent multivariate analyses of variance were performed in order to identify those demographic, attitudinal and developmental variables which discriminated the high from the low career expectation (CE) groups. Strikingly, no overlap of predictors occurred, i.e., those variables
which discriminated high from low CE groups were entirely different for the two races. Amongst the whites, high career expectations appeared to be related to a) parental stress of competitive values during the student's childhood, with a deemphasis of correct and obedient behavior; b) equalitarian attitudes towards male and female roles; c) a higher incidence of separation and divorce amongst parents. For the black women, however, high career expectations were related to what appeared to be the students' perceptions of the expectations and desires of significant others. The high CE group thought that most of the men they knew preferred, and that their mothers expected, more work involvement for their wives and daughters respectively. High scores were also somewhat (p < .072) related to an appreciation of parental strictness. Interestingly, Turner found that 54% of the black women wanted less work involvement than they expected, while 40% of the white women wanted more.

What Turner suggests is that black subjects' high expectations for work derived not so much from an achievement ethic, as from a sense of responsibility. This conclusion has certainly been reached by others: Scanzoni (1971) says that the black woman works because she has to; Hill (1971) points out that white families have higher incomes than do black families, even when only the male is employed; Batchelder (1964) reminds us that in the late 19th century
black women in the North often provided the only family income, as they were hired as washerwomen when no one would hire their husbands. The point made here is that as far as is known Turner's data provide the first psychological support for this conclusion. Further, it is suggested that more than economic necessity is operative in the black woman's employment; rather, black women have internalized what was and remains a necessity in such a way that they view their role as family member differently than do white women. Black women appear to see themselves as significantly more capable of performing both instrumental and expressive functions. These attitudes are reflected in two dimensions. First, we propose that black women see themselves as more competent and able than do their white counterparts. Fichter (1967) noted his black sample was significantly more confident of their own abilities than were the whites. For each of eight selected occupations blacks were less likely than whites to profess that they lacked the ability to perform the stated work. White women were also twice as likely to say that they lacked the proper personality for the occupation. Epstein (1972) also noted a greater level of self-confidence in her sample of black professional women than she had in a sample of white professional women.

The second corollary derives from what it means to have to meet not only the expressive expectations and needs
of others, but instrumental needs as well. In a culture which has limited the woman's role to the former, the necessity of performing both roles has, we believe, been burdensome. This sense of burden is somewhat attested to by the number (54%) of black women in Turner's sample who wanted less work involvement than they expected (it is to be remembered that 40% of the white sample wanted more). Employment for the black woman has come about not from a desire for personal fulfillment, as from existing in a society which in preventing her mate from manhood (as culturally defined) has demanded she be more than a "woman". It is not that she has lacked fulfillment or satisfaction, but that their occurrence has been more accidental than sought.

Sex-Role Attitudes

In a study of 77 black and 40 white college women, Gump (1972) found highly significant differences between the two in their endorsement of the traditional feminine role. Black women were much more likely than white women to endorse the position that a woman's identity derived primarily from marriage, that a mother with children should remain in the home, and that a woman should be submissive in relationship to men. (Three of the four statistical comparisons were significant at less than the .001 level.) It is important to note that black women believed equally as much in the
importance of maximizing their own potential. The difference between the black and white women derived then, from the latter's much greater adherence to this progressive view. Black women were balanced in their espousal of the two views. The white respondents are presently more interested in achieving fulfillment for themselves, than in fostering the achievements of their children and husband at their own expense. These findings were replicated in a larger study of black and white college women (Gump, 1973, unpublished paper).

The Composite Portrait

Much data has been presented portraying the black woman as more likely to enter the labor force, more interested in doing so, more likely to work full time and continuously, and more necessary to the financial welfare of her family. Consonant with these findings are those of Weston and Mednick (1970) who found significantly more fear of success imagery within a white than a black sample of college women. (The investigators also mention partial replication of these findings with additional samples.) While such facts suggest a woman much less constricted by the traditional role than is her white counterpart, they represent an incomplete portrait for it is equally true that black women choose occupations traditional for women, are motivated perhaps more by a sense of responsibility than by achievement need, are much more traditional in their sex-role attitudes than are young
white women, and to some extent seem burdened by the responsibility they carry.

Thus, it appears that black women have not escaped many of the constraints imposed upon white women, though they are free of some of them, and that concern for the occupational options of women can be no less directed towards them than towards any other women. For there are those who would assert too quickly the freedom of black women, and they must be reminded of her bondage. If black women have not been coddled, nor have they been cherished; if they have not been limited, nor have they been protected; if they are independent, it has been at the great price of too little dependency.

Technical Considerations

Almost twenty years ago, Thurstone (1955) made a distinction between tests and questionnaires: "The questionnaires are also called inventories, schedules and self-appraisals. None of these are tests in any real sense." Lawshe and Balma (1966) enlarged upon this distinction: "Measurement of temperament and interest and self-report devices of all types are referred to as inventories or questionnaires, not tests. The term 'test' is reserved for measures of maximum performance." According to these writers, instruments such as the Strong Vocational Interest Blank (SVIB) and the Kuder Preference Record do not qualify as psychological tests in the true sense of the concept.

In addition, there is ample evidence to indicate that
little relationship exists between abilities and corresponding interests (Darley and Haganah, 1955; Perrone, 1964). The degree to which interest and aptitudes are correlated is at such a low level, the prediction of one from the other with a reasonable degree of accuracy is not possible (Womer, 1961). Nevertheless, instruments such as these are used extensively in assessment and guidance situations which involve examinees from the total spectrum of American life, both in educational and vocational settings.

Interest inventories are of little practical value by themselves; however, when they are considered together with aptitude and achievement patterns, they can be useful aids for helping certain students select a career pattern or course of study. The major question is whether minority female students fit into this class of examinees.

Strong (1943), in one of his minor studies, reported that the only interest data pertaining to black females was that furnished by a study at Meharry Medical College. Twenty-five black women, average age 20.3 years, who had averaged two years of post-college work were studied. These women were scored on the then current women's interest scale for nurses at the beginning of their training in this field. It was found that their response equalled those obtained by the 1946 criterion group of white nurses.

None of the revisions of the SVIB since the 1946 version have reported criterion data for groups of black
females for any occupation. Campbell (1971) reported that for the 1946 women-general samples, a total of 7,819 females were examined. This group represented approximately 42 different occupational groups. The 1968 version used a sample of 1,000 women who represented forty-six clearly defined occupational groups and an additional one hundred miscellaneous (?) adults and sixty-eight miscellaneous (?) high school students. A revision of the women's form was completed in 1969. This involved several structural changes in the instrument and an updating of the item array. Approximately fifty-eight occupational groups are listed in Campbell's descriptions of the women's criterion groups. The degree of black female representation in the women-in-general, or in the criterion groups is not indicated in his handbook, or in the manuals for the various revisions.

One could conclude from the lack of data pertaining to the inclusion of black female samples in the more recent revisions that no attention was given to the assessment of the interests of black women in the occupational groups covered by the SVIB. On the other hand, one may conclude that there are insufficient numbers of black women in the occupations covered to obtain any meaningful sample size. In either case, the black female student who takes this interest device is penalized. Her responses will be compared with the responses of white examinees whose interests
have been shaped by the same forces shaping the interests of women comprising the validation groups. A black woman is thus faced with a mis-match of interests.

The ACT Handbook (1972) reported special subgroup norms (Afro-American, Mexican, Spanish American) for vocational interest profile scales. Norms for Mexican/Spanish American females were not available due to insufficient sample size. An examination of these norms show that there is a tendency for black students to score higher on all of the interest scales when compared to a general norm group at the vocational entry level except trades. A similar pattern emerges from the norms presented for the Mexican/Spanish American students, although less extreme than for blacks.

Of special interest to our present discussion of technical factors is the cautionary statement which accompanies the norms presented in the ACT Handbook. It is pointed out that these subgroup norms must be used with caution because students in various subgroups have had diverse educational experiences. Students from culturally different backgrounds may not have had the educational opportunities nor the life experiences which are comparable to those whose scores constitute the general normative group.

Deutsch (1964) suggested that when standardized interest inventories are used, special caution should be observed in making normative interpretations of scores of
individuals who are members of minority groups. Anastasi (1968) suggested that the validity of a test for a particular criterion may differ from group to group; thus, one test may be a better predictor for a certain person with certain characteristics than for other persons. For example, an instrument may be a better predictor for boys than for girls, or a better predictor for white than black adolescents. In both instances, sex and race are known as moderator variables.

A variety of moderators have been identified. Saunders (1956) pointed out the presence of such demographic variables as sex and socio-economic status as moderator variables. Hobert and Dunnette (1967) demonstrated the utility of moderators in selecting managers. Rock, Evans and Klein (1969) identified the level of parent's interest in students' hobbies, sociability, socio-economic status and level of interest in school as potential moderators.

Our basic contention in regard to interest inventories is that there may be a discontinuity or mismatch between the interest structures developed from the background of minority females and those possessed by the criterion groups used to validate an interest scale. This notion implies that both the predictor (inventory) and the criterion (reference group) are biased against the minority female, both from the standpoint of sex and ethnic membership.
The background experiences of the minority female forces her to develop a different array of expressed interests than those developed by white men and women. It is possible that the development of scales for women may partially alleviate the discrepancies which exist in the case of the former situation, however, more attention needs to be given to the mis-match between the interests of minority women and white women used in the criterion groups. The major indication of most research evidence is that tests used in making employment decisions should be considered unfair to disadvantaged minorities unless there is creditable contrary evidence. Kirkpatrick, et al. (1968) studied four different jobs for evidence of test unfairness toward blacks. They concluded that test fairness is a specific problem that needs to be researched in the particular situation, and that the issue of fairness hinges on the nature of the sample, the criteria, and the tests.

An event reported by Williams (1972) illustrates the above point. In a West Coast city, one hundred minority postal employees were hired in spite of low test scores on their screening tests. At the end of one year, they were all given excellent ratings based on job performance. At that point, they were readministered the screening tests; they all failed. The tests did not predict the employees' ability or interest in throwing mail.

A possible solution to this state of affairs may
come from the work of Droege and Hawk (1969). They have attempted to develop a measure of cultural exposure level that may be used as a moderator of test validity. The use of such a measure would theoretically obviate some of the practical difficulties of taking ethnic membership into account in adjusting test scores. This measure should be investigated in regard to its applicability to existing interest instruments.

Lykken and Rose (1963) called the moderator variable $Z$ and further suggested a formula which seems particularly appropriate to our discussion. They indicate: "The predictability of $Y$ from $X$ varies as a function of $Z$, although $Z$ may be uncorrelated with $Y$ or $X$" (p. 42). From this, we may derive the following equation:

Let $X = \text{interest inventories (predictor variables)}$

$Y = \text{scores of reference group (criterion variables)}$

$Z = \text{bias (moderator variable)}$

The moderator variable ($Z$) may be characteristics of the person, of the inventory or of the criterion. Motivation, race, sex, and socio-economic status (SES) may be classified as person characteristics, whereas other factors such as bias and unfairness may be classified as inventory and criterion characteristics. Theoretically, if we use bias as a moderator for both predictor and criterion variables, several interesting matching and
mis-matching patterns emerge. These are presented in Table 5 below:

[Insert Table 5 here]

We shall briefly concern ourselves with two of the above conditions (nos. 1 and 4).

1. **Z absent in both X and Y**

   Due to the fact that Z is absent, both the predictor and the criterion variables are presumed to be fair for the intended population. The women's version of the SVIB is a fair inventory for white women since it was standardized on a white female population. This is, we would expect Y (the criterion) to be easily predicted from X (the predictor) because of the match (similarity of the basic factors in the predictor and criterion variables). Under Z absent or fair conditions, interest inventories do what they are expected to do—predict to the criterion group interest structure.

4. **Z present in X and Y**

   If Z is present in both the predictor and the criterion, the correlation tends to be high. The bias in the inventory and the criterion will lower the scores. If a minority female scores low on the inventory, she is less likely to have an interest structure which approximates that of the reference group. For white females (for whom the inventories were standardized and for whom Z is absent), the inventories are fair and the criterion is fair; i.e. a
matching situation. For minority females (who were not included in the standardization sample and for whom $Z$ is present) the inventories and the criterion are unfair; i.e., also matching situations.

**Conclusion**

We have presented this brief examination of some of the technical aspects of the problem of preparing assessment instruments for minority group examinees in order to emphasize the need for further work in this area. A massive amount of controversy has centered on the appropriateness of standardized psychological tests and inventories for minority group individuals. It is our opinion that the future of employment and educational testing will depend for the most part upon the vigor of future research efforts into proper techniques for the validation of these instruments for minority group students. The major obligation of instrument validation is the professional responsibility of the psychologist, and it is to this group of professionals that the following recommendations are made. The technical knowledge is available and there has been a start in minority test validations (Williams, 1972).
 Guidelines

1. Efforts directed at amelioration of sex bias should be extended as strenuously toward members of minority groups as toward whites. The early section of this paper has suggested there may be a need to counteract explicit and implicit attitudes that black women do not require guidance which would lead them to expand vocational options. Through minority participation in the N.I.E. workshop, and through attention given to predominantly black and Spanish high schools, N.I.E. may play an important role in educating counselors to be sensitive to the needs of minority women.

2. Given the tendency of black women to make early career decisions within a limited array of occupations, to the extent that interest inventories may be used as sources of stimulation their early administration is thought to be particularly important for the minority student.

3. Student handbooks should include accurate information about the proportions of minority men and women in various occupational roles, so that occupational planning may include realistic knowledge of group participation.

4. Counselor manuals should also include discussion of group participation in various occupations, and
counselors should be urged to encourage the minority student's broad consideration of occupational choice, even where present numbers of minorities in given roles is low. Low participation has too often been used as a source of discouragement. Where the student's interests and abilities are realistically matched, counselors should be advised to admit their ignorance of "how it would be" for the minority student entering unchartered waters, rather than to "protect" him from contemplated difficulties.

5. Publishers should establish response rates on homogeneous scales for minority men and women. Should substantial differences in response be found, separate norms should be presented for different minority groups. Should differences not be found, publishers should indicate clearly that differences were evaluated, and that groups have been combined due to similarity of response.

6. Normative groups for occupational scales should be examined to determine if minority groups are included, and where minorities are included their response patterns should be compared with the majority, and item modifications made where necessary.

7. Minority group psychologists should seek federal, state and private support for the purpose of developing new
instruments which are appropriate for use with minority group women.
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Turner, B. F. Socialization and career orientation among


Footnotes

1Presently on leave of absence.

2One may only speculate about the cause of this discrepancy between black men and women. As Sorkin suggests, it is possible that nonwhite women were hired more readily than nonwhite men, as employers sought compliance with the 1964 Civil Rights Act, because they could be hired at lower salary levels. Nonwhite women are also attractive because they may be counted twice in affirmative action reports. Finally, it is to be noted that about 54% of all black women classified as professional are teachers, in comparison to 39% of white women, and in 1970 black women teachers earned $1400 more than their white counterparts. Thus, much of the black women's comparatively higher earnings may be a function of her employment in the most traditional of female occupations and, according to Sorkin, to her more continuous employment within this occupation, resulting in greater seniority. The relative income advantage of professional black women in comparison to white women is not so clearly indicative of less discrimination encountered by her as opposed to the black male.
<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Sex</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negro</td>
<td></td>
<td>$3,008</td>
<td>$5,194</td>
</tr>
<tr>
<td>Spanish Heritage</td>
<td></td>
<td>3,241</td>
<td>6,034</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3,649</td>
<td>7,610</td>
</tr>
</tbody>
</table>

Note.—Data for this table were obtained from U.S. summary: Detailed characteristics, 1970 census, 1973.

Spanish heritage refers to Puerto Ricans, Mexican Americans and others whose mother tongue or surname is of Spanish origin.
<table>
<thead>
<tr>
<th>Occupational Category</th>
<th>1910</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonwhite</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional &amp; Technical Managers,</td>
<td>11.6%</td>
<td>14.1%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Officials &amp; Proprietors, Physical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>除外农场</td>
<td>1.5%</td>
<td>1.5%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Craftsmen &amp; Foremen</td>
<td>8.2%</td>
<td>2.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Clerical &amp; Sales</td>
<td>17.5%</td>
<td>43.2%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Operatives</td>
<td>21.2%</td>
<td>14.3%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Non-Farm Laborers</td>
<td>1.5%</td>
<td>1.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Service Workers except Private Household</td>
<td>17.2%</td>
<td>38.5%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Private Household Workers</td>
<td>9.2%</td>
<td>3.2%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Farm Laborers &amp; Foremen</td>
<td>3.1%</td>
<td>4.0%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Note.-Above figures have been extracted from A.L. Sorkin, Education, occupation, and income of nonwhite women, Journal of Negro Education, XXII, 1970, Table 1., p. 345.
<table>
<thead>
<tr>
<th>Career Preferences</th>
<th>Investigator</th>
<th>Race</th>
<th>Other a Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homemakers: work not at all, or only before birth &amp; after growth of children</td>
<td>Fichter b</td>
<td>37%</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>45</td>
<td>80</td>
</tr>
<tr>
<td>Work occasionally throughout</td>
<td>Fichter</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td>Combine part-time work with marriage &amp; child rearing</td>
<td>Fichter</td>
<td>47</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>27</td>
<td>10</td>
</tr>
</tbody>
</table>


aOther whites refers to data gathered by the National
Table 3. (continued)

Opinion Research Center's study of approximately 10,000 1964 graduates nationwide, reported by Fichter.

Subtotals for categories given by Fichter do not sum to 100% due to the exclusion in this table of respondents indicating a desire for career without marriage or without children.
<table>
<thead>
<tr>
<th>Career Expectations</th>
<th>Investigator</th>
<th>Race</th>
<th>Other Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homemakers: work not at all, or only before birth and after growth of children</td>
<td>Fichter</td>
<td>Black</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>46</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Turner</td>
<td>21</td>
<td>53</td>
</tr>
<tr>
<td>Combine full-time work with marriage &amp; child rearing</td>
<td>Fichter</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Turner</td>
<td>54</td>
<td>16</td>
</tr>
<tr>
<td>Combine part-time work with marriage &amp; child rearing</td>
<td>Fichter</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Kuvlesky &amp; Obordo</td>
<td>36</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Turner</td>
<td>25</td>
<td>31</td>
</tr>
</tbody>
</table>

Note.—Data for Table 4 were derived from Fichter (1967), Kuvlesky & Obordo (1972), and B.F. Turner (Socialization & career orientation among black & white college women, Paper presented at APA, 1972), who examined 28 black and 45 white freshmen women at the University of Massachusetts (See Note, Table 3).

Other whites refers to data gathered by the National Opinion Research Center's study of approximately 10,000 1964 graduates nationwide, reported by Fichter.

The investigator does not account for the fact that the
Table 4. (continued)

Subtotals for black women sum to less than 100%. (Some respondents are excluded in this table because they plan either not to marry or not to have children.)
Table 5

The Effect of Z Present or Absent on Correlation

(R.L. Williams, 1973)

<table>
<thead>
<tr>
<th>Predictor(X)</th>
<th>Criterion(Y)</th>
<th>Match</th>
<th>Expected Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z absent</td>
<td>Z absent</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Z present</td>
<td>Z absent</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Z absent</td>
<td>Z present</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Z present</td>
<td>Z present</td>
<td>Yes</td>
<td>High</td>
</tr>
</tbody>
</table>