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Special Groups and the Beneficial Use of Vocational Interest Inventories

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RECENT CONCERNS ABOUT TEST USAGE AND SPECIAL GROUPS

A dominant issue in vocational and counseling psychology since at least the 1970s has been whether or not traditional counseling methods are appropriate for women, minorities, and other special groups. The issue of appropriate treatment remains a lively one in many areas of social life, because large differences remain in education, occupation, and income by ethnic group, race, and sex, despite the elimination of most blatant forms of unfair discrimination.

Intensive efforts have been made to expunge potential sources of bias from counselor behavior and from the tools they use. Good rapport and effective interpersonal communication are generally understood to be essential for successful counseling and, not surprisingly, considerable attention has been given in the field to determining the effects on the counseling process of interracial or cross-gender counseling, counselor attitudes, counselee expectations, and cultural differences (Atkinson, Morten, & Sue, 1979; Casas, 1984; Schlossberg & Pietrofesa, 1978), and to developing guidelines for counseling women (Richardson & Johnson, 1984) and for becoming a "culturally skilled" counselor (Sue, 1981).

Counseling *tools*, as well as the counseling *process*, have also received considerable attention. Sexist language and stereotyped depictions of different ethnic groups, races, and sexes have been eliminated from informational booklets and materials. Assessment devices have been important tools in educational and career counseling, and so they too have been objects of scrutiny and controversy. Counselors use a variety of standardized assessments, including interest, aptitude, vocational maturity, and personality tests. Controversy over standardized

testing has engulfed the whole of psychology, but because vocational interest inventories have held an especially prominent place in the counselor's armamentarium, they have been the objects of most controversy in vocational and counseling psychology.

This chapter examines the appropriateness of interest inventories in counseling members of special groups and explores how interest inventories might be used beneficially in the career counseling of both minority and majority populations. These issues are pursued in three sections. The first section outlines recent concerns about special groups and the impact those concerns have had on the structure of interest inventories and on perceptions of the role interest inventories do or should play in the counseling process. Some parallels are shown between the controversy over interest inventories and the controversy over another frequent form of psychological assessment (intelligence testing) in educational and occupational settings. An examination of the special-groups literature then provides the backdrop for understanding past problems and future directions for interest measurement, particularly as it applies to disadvantaged social groups. The second section suggests that the use of any counseling tool, including inventories, can be improved by a more analytical understanding of the career choice problems that people have. Drawing on previous research and speculation, the author outlines the risk factors that predispose special groups toward higher rates of career choice problems, and then a problem analysis framework is presented that helps to clarify the problems any particular counselee may be facing, including those problems that may be generated by some special group status. The final section of the chapter proposes nine principles for the beneficial use of interest inventories for both minority and majority populations.

Impact of the Testing Controversy

Just as the concern for special groups in the field of counseling echoes wider social concerns of the last few decades, so too the controversy over interest measurement (Diamond, 1975; Tittle & Zytowski, 1978) can be seen as one manifestation of the larger movement questioning the fairness of psychological tests (Jensen, 1980; Samuda, 1975). The fairness of mental (e.g., intelligence) tests is both an older and more hotly debated topic than is the fairness of interest inventories, but the parallels between the two issues put the interest inventory controversy in a broader perspective.

Mental tests came under fire largely because they show large race differences in mental abilities. Likewise, interest inventories came under fire largely because they show sex differences in vocational interests. Not all measures that indicate race or sex differences are controversial, but mental tests and interest inventories are widely used, they measure traits that are important in life, and they frequently figure in educational and occupational decision making. The initial criticism of both types of test was that they may mismeasure the abilities or interests of some

social groups and, specifically, that mental tests may be biased against blacks and other ethnic minorities, and that interest tests may be biased against women. Further criticisms of interest inventories were that fewer and lower status occupational scales were provided for women, and that interpretive materials were replete with sex stereotypes that might further constrict the vocational choices of females (Birk, 1975). Bias against the physically handicapped appears not to have been an issue, although special provisions are often made for testing the deaf, blind, and otherwise functionally impaired.

Criticisms of those tests have brought about changes in the tests themselves and in beliefs about how they should be used, if at all, under different circumstances. In the case of interest inventories, the criticisms led quickly to the production of guidelines for supposedly sex-fair measurement (Tittle & Zytowski, 1978, Appendix A) which, although not having the force of law, raised the specter of legal action against publishers who did not comply with those guidelines. Whether out of agreement with the guidelines or out of the fear of legal action, and probably for both reasons, publishers made numerous changes in the major inventories within a matter of a few years. The criticisms of established inventories also led to experimentation with new inventories, such as the Unisex Interest Inventory which utilizes more highly "sex-balanced" scales (Hanson & Rayman, 1976; Rayman, 1976). In regard to mental tests, criticisms have led to considerable legal and regulatory activity. Some states are now legally prohibited from using intelligence tests for some educational purposes (e.g., for assigning students to classes for the educable mentally retarded) and other states have voluntarily curtailed their use. Testing in employment settings has also declined, apparently in large part because of stricter and more costly validation standards (Tenopir, 1981). Criticisms of mental tests have resulted in only occasional minor changes in the major tests, but have stimulated the development of new tests or testing systems such as The System of Multicultural Pluralistic Assessment (SOMPA; Mercer, 1979). There is considerable debate about whether the foregoing changes are beneficial or scientifically justified (Gordon, 1980a, 1980c; Schmidt & Hunter, 1981), but that there have been changes cannot be denied.

A frequent criticism has been that tests have been developed and standardized primarily with whites (for mental tests) and white males (for interest inventories). In response to this criticism, standardization samples for mental tests now include a representative proportion of minorities (Gordon & Rudert, 1979, p. 179) and parallel male and female standardization samples now are routinely sought for occupational scales in interest inventories (Campbell & Hansen, 1981).

Another criticism has been that test items themselves may be culture-bound. As a result, some items in the well established tests that appear on the surface to be biased have been eliminated—for example the ugliness item in some mental tests. In addition, all test items in the major mental tests produced today are

submitted to panels of minority psychologists and other interested groups for scrutiny, and all items which those groups find offensive or otherwise questionable are eliminated (Educational Testing Service Board of Trustees, 1984; Jensen, 1980, p. 642). Similarly, all gender-specific titles in interest inventories have been changed to be gender-neutral (e.g., policeman to police officer). Another specific complaint regarding cultural bias has been that some types of test items presume that all people have had the same opportunity to exercise the interests and abilities being measured when, in fact, such opportunities may not have been equally accessible to all types of people. Attempts to characterize mental tests according to their culture fairness or culture "loadedness" (Jensen, 1980) reflect this concern. Responses to this issue with interest inventories have taken several forms. One widespread response has been to develop more "sex-balanced" scales, that is, to find items that men and women respond to at equal rates or to balance a female-favored item with a male-favored item in the same scale. It should be noted, however, that one eminent psychometrician (Cronbach, 1984) has criticized this response because it "falsifies the report of interests by refusing to count whatever part of the content domain is unappealing to females" (p. 440). A second approach has been to liberalize instructions so that one need not have had the opportunity to perform some activity but only be interested in trying the activity for an interest to be registered on the inventory.

Whether to norm, and how, has also been an issue. It is still generally considered inappropriate to norm mental tests separately for different social groups, although some of the newer mental tests nevertheless do so (Mercer, 1979). However, sex-specific or race-specific norms are sometimes employed when making decisions with mental test scores in educational and employment settings. For example, the frequently advocated practice of ranking minorities and whites separately by test scores and then selecting proportionately from both lists (one form of quotas) is tantamount to using separate norms in the first place to calculate the scores of minorities and whites. In contrast, separate norms by sex are now provided by most interest inventories. Both the Strong-Campbell Interest Inventory (SCII; Campbell & Hansen, 1981) and the Kuder Occupational Interest Survey (KOIS; Kuder & Diamond, 1979) provide occupational scale and general theme, or interest areas scores, on both the male and female norms for all test takers and, although Holland argues that raw scores are more appropriate for the scales of the Self-Directed Search (SDS), which is consistent with Cronbach's (1984, p. 422) endorsement of raw scores, the SDS manual provides the data by which counselors can use sex norms if they so desire (Holland, 1979a, Appendix C). The issue of norming is complex and differs for occupational versus basic theme scales, and it has been one of the most heated in the interest inventory controversy. Norming has generated much research but, in general, there is no solution to the norming problem that enjoys a consensus, so different inventories have tackled the matter differently.

Another issue has been whether all test takers should be given exactly the same test and, in this regard, more interest inventories have now become like current mental tests. Different test items are of necessity required for testing the mental capabilities of different age groups, but otherwise all test takers take exactly the same test and receive scores on the same scales. In the past, some major interest inventories such as the Strong Vocational Interest Blank (SVIB) had different forms for the two sexes (Campbell & Hansen, 1981), but it is now standard practice to provide the same assessment form and report scores on the same scales to all people taking an interest inventory. The only exceptions to this rule are the separate assessment procedures that have been established for the physically handicapped. For example, the SDS has a version for the sight-impaired (Holland, 1979a, p. 8). It also should be noted, however, that the male and female scales for the same occupation on the SCII are composed of somewhat different items. Also, although Zytowski and Laing (1978) have provided evidence that scores on opposite-sex scales on the KOIS are valid, and although the *User's Guide* for the SCII (Hansen, 1984b) suggests techniques for interpreting opposite-sex occupational scales, earlier concerns about their interpretability (Johansson & Harmon, 1972; Lunneborg, 1975) linger. This, in turn, makes it relevant to note that a few occupations on recent versions of the SCII and Kuder have norms for only one sex (Campbell & Hansen, 1981; Kuder & Diamond, 1979), although the proportion of such occupations is small in the newly revised versions discussed in previous chapters of this book.

Finally, interpretive materials, which include the test manual as well as any reporting forms and accessory interpretive brochures, have been altered to avoid pigeonholing or stereotyping people because of their test scores or in other ways. Manuals and handbooks for mental tests (Matarazzo, 1972) are replete with admonitions to remember that test scores are not perfectly reliable, that people may change, and that many factors determine one's suitability for different kinds of employment. And interest inventory materials, for example, are now careful to point out that all jobs are suitable for all races and sexes and that stereotyping and past socialization should be considered in interpreting interest scores; they are also careful to present all races and sexes in an equally positive and non-stereotyped manner and to encourage exploration of diverse occupational alternatives.

Despite the recent changes in test content, standardization samples, and interpretive materials, sizeable race differences in responses to many test items and total scale scores remain on mental tests (Jensen, 1980) and sex differences remain on interest inventories (Campbell & Hansen, 1981; Holland, 1979a; Kuder & Diamond, 1979). For example, changes in the SDS to make its wording gender-neutral appear to have had little or no effect on item responses (Boyd, 1978). Extensively liberalized SDS instructions have produced only minor profile differences; they have failed to increase test-taker satisfaction; and they have

failed to increase the number of options or the number of nontraditional options a college woman considers (Holland, 1979a, p. 54).

The failure of interest inventory modifications to change inventory outcomes is not surprising in view of the fact that *different* inventories all appear to have *equivalent* effects on test takers, despite those inventories' use of different norms, scaling procedures, and interpretive procedures (Holland, Magoon, & Spokane, 1981). The lack of effect of inventory modifications may also seem less surprising, in hindsight, by noting that vocational interests are quite stable at both the individual and aggregate levels: specifically, interests are quite stable after high school graduation and the interests of men-in-general and of women-in-general have changed little or not at all from 1930 to 1980 (Hansen, 1984a), 5 decades that span considerable social change. Sex differences in occupational values also seem to have remained quite stable during periods of social change (Herzog, 1982). And if social learning theories of vocational decision making (Mitchell & Krumboltz, 1984) are to be taken seriously, if the special-groups literature is correct that socialization to sex-typed vocational choices is essentially a pervasive, consistent, and enduring feature of people's environments, and if people continue to highly value and to try to implement their gender self-concepts in the occupational sphere (Gottfredson, 1981), then it seems unrealistic to have expected that recent changes in interest inventories would significantly diminish sex differences in occupational preferences (Boyd, 1978; Gottfredson, 1982).

Research findings about bias in mental tests and in interest inventories have also been parallel in some important respects. It is still widely believed that intelligence tests are culturally biased, but the research has shown conclusively that mental tests are not biased against blacks and other native-born English-speaking minorities. Similarly, many people assume that "it is probable that all existing career interest inventories are sex biased to some degree" (Fitzgerald & Crites, 1980, p. 51). Although the evidence regarding interest inventories is less extensive, and so less definitive, than that for mental tests, that research has also failed to confirm cultural or sex bias in major interest inventories such as the KOIS, the SDS, and the SCII. The SVIB, which was the forerunner of the SCII, may have been sex biased by definition, because it had separate forms for males and females that shared only 40% of their items in common, and because it reported scores on many fewer occupational scales for females than for males.

The research has also made clear that the superficial appearance of bias often has little relation to the real existence of bias (Gordon & Rudert, 1979). With regard to mental tests, for example, it had been widely assumed that culture-loaded or language-loaded mental tests are especially biased against blacks. However, culture-loaded mental tests have not been shown to be culturally biased, and black-white differences are no larger on such tests than they are on culture-reduced (e.g., performance) tests (Gordon, 1984, p. 467; Linn, 1982, p. 366). The evidence regarding interest inventories suggests that gender-specific

items are not biased as had been widely assumed (Boyd, 1978; Gottfredson, 1976), although counselees and counselors alike rate less favorably the tests that include such items (Boyd, 1978). Similarly, the fact that test scores differ by social group is not by itself evidence that tests are biased.

The foregoing conclusions about lack of test bias are not universally accepted by any means, partly because many people are more concerned about test *fairness* than about test *bias* (Datta, 1978), the former referring to sociopolitical goals and the latter to the properties of a test. Bias in a test "refers to systematic errors in the *predictive validity* or the *construct validity* of test scores of individuals that are associated with the individual's group membership" (Jensen, 1980, p. 375). In contrast, *fairness* is often a term used to refer to equal distributions of outcomes across groups rather than (or in addition to) equal treatment or unbiased measurement.

Criteria used to assess test bias have been grouped under two general headings—internal and external validity. The former refers to the internal structure of a test and the latter to the relation of test scores to other performances that the test theoretically should predict. Research on internal validity shows that neither mental tests nor interest inventories are culturally or sexually biased. For example, the factor structure of mental tests is the same for blacks, Hispanics, Jews, white Gentiles, males, females, and different social classes (Gordon, 1984; Gordon & Rudert, 1979; Hennessy & Merrifield, 1976; Jensen, 1980, chapter 11), and the structure of interests is also largely the same by sex, race, social class, and language of inventory taken by bilingual persons (Cole, 1973; Fouad, Cudeck, & Hansen, 1984; Hansen, 1984a; Hanson & Cole, 1973; Harmon, 1975; Lamb, 1978; Smith, 1983; Weinrach, 1984).

Research on the external validity of mental tests also has failed to reveal bias. For example, extensive research shows that mental tests predict both educational and occupational performance equally well for blacks, Hispanics and whites (Gordon & Rudert, 1979; Hunter, Schmidt, & Rauschenberger, 1984; Jensen, 1980; Linn, 1982). The predictive bias that does exist stems largely from test unreliability and *favours* blacks when common regression equations are used (Hunter et al., 1984; Linn, 1982). External validity has been a more difficult criterion by which to assess the potential bias in interest inventories, because there is no longer a consensus about what an interest inventory should predict, if anything (Zytowski, 1978, p. 132; Tittle & Zytowski, 1978, p. xvii). Predictive validity has been a traditional criterion against which to assess inventories, but it is now rejected by people who argue that predictive validity places a premium on preserving the status quo.

This argument appears to have arisen because of the specific way in which predictive validity has been measured. Although the field has traditionally presumed that inventories ideally should predict vocational satisfaction and adjustment, which would seem to be appropriate goals for all test-takers, inventories have in practice usually been validated against the intermediate criteria of later

entry, preparation for entry, or the desire for entry into a particular college major or type of work. It is really only the appropriateness of these latter intermediate criteria that is now called into question. In any case, evidence on the validity of the major interest inventories for predicting current or future choice indicates that it is similar for different minority groups (Borgen & Harper, 1973; Lamb, 1978) and for males and females (Hansen & Swanson, 1983; Harmon, 1969; Spokane, 1979; Zytowski, 1981, p. 32). Other external criteria have been sought by which to assess the fairness of interest inventories, for example, client satisfaction with the results of the inventory, number of options suggested, increased information seeking, reduction of indecision, and reduced need to see a counselor, but research on these criteria also suggests that inventories are equally beneficial for both sexes (Holland et al., 1981). Analyses of these types of criteria are usually referred to as *effects studies*, although the term *exploration validity* is sometimes used in reference to some of these external criteria.

The adequacy of mental tests and interest inventories for persons with handicaps has received little attention in the counseling literature. Special interest inventories have been developed for the mentally retarded (Power, 1984) and mental tests have long been used to help diagnose mental retardation (Gordon, 1980c). Research on the hospitalized physically disabled (Hershenson & Sloan, 1968) suggested indirectly that the SVIB is suitable for such persons. Holland (1979a, p. 8) summarized favorable evidence for the special form of the SDS for assessing the interests of the visually disabled. However, emotional disturbances appear to interfere with adequate assessment of both vocational interests (Hershenson & Sloan, 1968) and cognitive abilities (see Jensen's, 1980, discussion of the sources of large changes in tested intelligence). One recent text on vocational assessment in rehabilitation counseling (Power, 1984) described a wide variety of mental tests and interest inventories and, except for administrative constraints associated with visual or hearing handicaps, suggested that they both play an important role in counseling persons with handicaps. Interest testing of persons with spinal cord injuries (Rohe & Athelstan, 1982) illustrates how useful interest tests can be in treatment and rehabilitation.

The foregoing discussion does not constitute a blanket endorsement of either mental tests or interest inventories for all types of clients, because the research has dealt primarily with native-born English-speaking test takers. In the absence of clearcut evidence that tests are not biased for recent immigrants or for people who may speak little or no English, the tests cannot be assumed appropriate for these particular groups. At the same time, neither can the tests be assumed necessarily inappropriate. For example, research on the validity of English-language and translated versions of the VPI, SDS, and SVIB-SCII in other countries or for bilingual persons in this country has generally been positive (Hansen, 1984a; Hansen & Fouad, 1984; Holland, 1979a). Similarly, performance (i.e., nonverbal) tests developed for the United States or English populations (e.g., Raven's matrices [Raven, Court, & Raven, 1979]) appear to be

equally appropriate for test takers unfamiliar with United States culture as well as for different groups within the United States population (Jensen, 1980); in fact, they are especially useful for "screening illiterate, semiliterate, bilingual, and otherwise educationally disadvantaged or socially depressed populations for potential academic talent" that might otherwise go undetected (Jensen, 1980, p. 648). To take another example, Japanese standardization of performance tests in the Wechsler Intelligence Scale for Children (WISC), which do not require translation, reveal a mean Japanese IQ of about 107—a result that would not be expected if such IQ tests did in fact require a knowledge of American culture (Gordon & Rudert, 1979; but see Flynn, 1984; Lynn, 1983; Stevenson & Azuma, 1983). In short, evidence to date suggests that the major mental tests and interest inventories in use in the United States today are equally valid for assessing different sexes and racial or ethnic groups, with the possible exception of recent immigrants or those who are not proficient in the language in which the test is administered.

Overall, then, the research on mental and interest tests has shown that the tests reflect real group differences. It does not necessarily follow, of course, that such group differences are desirable or unchangeable; that is a different issue.

The research indicating that the tests are not biased and that they reflect real differences among social groups has not quieted concerns about unfair testing so much as it has brought about a shift in the focus of concern. The testing controversy arose because tests showed group differences in *outcomes*. Therefore, as long as group differences in outcomes remain, so too will concerns about the *fairness* of the tests. Concern now focuses less on how tests should be constructed and more on how they should be used, if at all. One indication of this shift is reflected in Holland's recent proposals (1979a, p. 51; in press) that interest inventories be evaluated not only according to the traditional properties of reliability and validity, but also according to their usefulness and their effects on test takers.

A frequently expressed fear is that test results may only reinforce sex and race differences and leave potentials undeveloped unless the test results are interpreted and used properly (Birk, 1975; Samuda, 1975). Mental tests, for example, are sometimes seen as only reinforcing past race differences if they are not used for assessing problems and designing appropriate educational interventions for the test taker. Interest inventories have been defined as "sex-restrictive" simply if they suggest different distributions of occupations to men and women (Prediger & Hanson, 1974), and this is widely considered to be an undesirable feature of an inventory (Fitzgerald & Betz, 1983). There is, therefore, debate about whether interest inventories should merely reflect traits that may have resulted from past socialization or whether they should constitute a treatment designed to counteract or "upend" earlier socialization to stereotyped interests and social roles (Birk, 1975; Cole & Hanson, 1975; Datta, 1978; Holland, 1975). There has also been argument about whether tests can do much by

themselves to counter many previous years of socialization and continuing reinforcement of resulting differences (Cole & Hanson, 1975; Holland, 1975) and about what kinds of supplementary interpretive procedures and materials can enhance the power of inventories to reduce sex differences in interests (Birk, 1975; Holland, 1975). But these are all issues about how tests should or can be used to benefit counselees, particularly those who are members of special groups.

Despite the rising interest in the issue of beneficial test usage, concrete and specific suggestions are as yet few for how tests should be properly used. For example, the National Research Council of the National Academy of Sciences (Wigdor & Garner, 1982) concluded that, although intelligence tests are not culturally biased, such tests could be used more wisely. However, that report provided little guidance for what would constitute beneficial test usage in different circumstances. Likewise, interest inventory manuals encourage counselors not to rely solely on interest inventory results, but to interpret them in the context of a wide variety of other information about the test taker (Campbell & Hansen, 1981; Holland, 1979a; Kuder & Diamond, 1979). However, manuals and reporting forms provide little explicit guidance to the counselor or the test taker about what that other information might be, how it might be obtained, or how it can be usefully integrated with inventory results. This is not said to criticize test developers and publishers, for they have been responsive to concerns about sex and race bias. It merely reflects the fact that the testing controversy has brought career counseling to the edge of a new frontier—the science and art of beneficial test usage.

Without explicit guidance on how to use the results of mental tests or interest inventories in the best interests of members of special groups, many educators and counselors appear reluctant to use tests at all. Although understandable, this reluctance is unfortunate, because it often means that counselors and test takers turn to less reliable and less objective information about capacities and interests. Counselors have been criticized in the past for channeling women and minorities into stereotyped jobs, and thus many are more comfortable with promoting vocational exploration than with the more traditional goal of promoting realism, because the latter smacks of restricting client opportunities (Birk, 1975). Although realism and exploration are not necessarily conflicting counseling goals (Gottfredson, 1985c), they are generally perceived as such, so this apparent dilemma leads some counselors to reject testing altogether.

Although there is little discussion about what constitutes beneficial test usage, and indeed the issue itself seems as yet to be largely implicit in the field, several types of literature provide clues as to what it might consist of. The remainder of this chapter is devoted to outlining what past research and speculation about special groups and career development suggests for a science of beneficial interest inventory usage, particularly for members of special groups.

The Special-Groups Literature

The term *special groups* is used most often in the vocational counseling literature to refer to social groups who are subject to social, political, and economic disadvantages or discrimination. The most commonly discussed groups include blacks, Hispanics, Asian-Americans, Native-Americans, and women (Atkinson et al., 1979; Brooks, 1984; Fitzgerald & Betz, 1983; Fitzgerald & Crites, 1980; Harmon, Birk, Fitzgerald, & Tanney, 1978; Jackson, 1981; Lazarus & Tobin, 1981; Picou & Campbell, 1975; Smith, 1983; Sue, 1981). Homosexuals, white ethnics, Jews, migratory workers, and delinquents are among the other social groups that are occasionally discussed as disadvantaged groups (Amos & Grambs, 1968; Brown, 1975; National Institute of Education, 1980), but they are generally accorded only passing mention. The deaf (Lacey, 1975), dyslexic (Gottfredson, Finucci, & Childs, 1984a), and other people suffering from physical, mental, or emotional handicaps (Overs, 1975) are rarely considered in either vocational psychology (Osipow, 1976) or the special-groups literature (see Picou & Campbell, 1975, for an exception) but have usually been discussed in the rehabilitation literature (Jaques & Kauppi, 1983). Although gifted students are often assumed to have some of the same problems as do other special groups (e.g., social isolation, under-achievement; Fields, 1984), they also appear to have been ignored in the special groups literature.

Although there is no consensus about what constitutes a special group or how many there are, the unifying theme of the literature is that many people have career problems because society is insensitive or unfair in its treatment of those people. This stance is evident in terms such as culturally disadvantaged or culturally oppressed which frequently are used to designate these groups. The literature focuses on the social groups most commonly presumed to be victims of discriminatory social processes, and in the last decade this literature has condemned deficit or social pathology (e.g., culture of poverty) models of race, sex, and ethnic differences, because such explanations of group difference are perceived to “blame the victim” (Smith, 1982) and to ignore the strengths of those groups (Casas, 1984; Richardson & Johnson, 1984; Samuda, 1975). Some attributes that are commonly viewed as dysfunctional may even, from another point of view, be perceived as strengths or adaptive behavior (Davidson, 1980, p. 130). It is further argued that it is more appropriate to view special groups as *different* in values than to view them as *deficient* in any regard (Sue, 1981, pp. 12–16).

The shunning of deficit models may account partly for why groups whose members are widely understood to have functional deficits or limitations (e.g., in hearing) tend to be ignored in the special-groups literature. Nevertheless, there is much more overlap between the problems of the physically, mentally, and emotionally handicapped and other special groups than is commonly recognized

(Hershenson & Sloan, 1968), and the former are considered special groups for the purposes of this chapter. The career problems of the blind, deaf, physically disabled, mentally ill, and dyslexic, for example, have been attributed not solely to their functional limitations, but also to insensitivities, stereotyping, and discriminatory social processes that are very much like those from which the members of other special groups are presumed to suffer (Gellman, 1959; Gottfredson, Finucci, & Childs, 1984b; Higgins, 1980; Jaques & Kauppi, 1983; Lacey, 1975; Osipow, 1976; Scott, 1969; Segal, 1978).

The more detailed discussions of the problems of special groups typically focus on one particular special group at a time and outline how that group differs from the majority society, the ways in which the group has been oppressed or otherwise disadvantaged in the United States, and the dilemmas and problems members of those groups face in pursuing success in a white male middle-class occupational world. The literature stresses that the problems these groups face are unique and have not been properly understood or appreciated in the counseling setting. It is frequently stated that vocational theories and assessments were developed from research on samples of white middle-class males and that they are therefore inadequate for understanding or aiding members of special groups. Some authors argue that different theories are necessary for special groups, and others argue that equal treatment in counseling may be discriminatory treatment for members of special groups (Sue, 1981, p. 107). It is frequently argued that it is destructive to emphasize changing the attributes of the victims rather than placing responsibility with society where it presumably more properly belongs. Therefore, there are frequent references to the need to teach respect for cultural differences, to the need to educate the members of special groups about the external sources of their problems, to the need to counteract negative stereotypes of special groups, and to the need for clients and counselors alike to challenge the status quo.

This literature has been useful because it has sensitized counselors to cultural and gender differences. Although there is still debate about whether research has demonstrated that counselors are, in fact, biased (Richardson & Johnson, 1984), the failure to understand or respect cultural and sex differences may have previously impaired counselor effectiveness and fairness in dealing with counselees from special groups. Perhaps a more important contribution of the special-groups literature in the present context is that it shifts attention to important career determinants that have tended to be ignored in current vocational theory. In particular, the special-groups literature has reinforced earlier occasional criticisms (Warnath, 1975) that vocational theory pays too much attention to the internal psychological sources of career development and it pays too little attention to external constraints (Atkinson et al., 1979; Brooks, 1984). It is stressed in the special-groups literature that members of special groups have been subject to societal restrictions and stereotypes that have severely limited the types of occupations available to them—constraints that do not exist for majority males.

The special-groups literature thus constitutes a challenge to current vocational theory and to the value of the tools and counseling interventions that the latter has fostered. These criticisms also echo the complaints of many sociologists that vocational psychology assumes free occupational choice, whereas the real world offers nothing of the sort for the bulk of our population.

The special groups literature has helped to generate more concern about the career development of special groups, but it has been of less use in providing guidance for acting on those concerns in career counseling settings (Casas, 1984; Holland, 1984). In particular, the literature has provided guidance for establishing rapport with people who are culturally different, but it has provided less guidance for what counselors should do after rapport is established to help members of special groups deal with the special problems they are assumed to have. One inadequacy of the literature in the present context is its failure to treat the problems of special groups in a sufficiently specific and analytic enough manner to aid counselors in their efforts with individual clients. Articles about special groups continue to provide additional detail on cultural differences and social oppression among a handful of special groups—primarily blacks, Hispanics, Asian-Americans, Native-Americans, and women—and, ironically, they continue to detail the very stereotypes they seek to destroy. However, they remain unclear about how these and other aspects of special-group status translate into the particular career problems that counselors are likely to see in their clients and be required to treat. For example, racism, discrimination, sexism, and stereotyping may all be undeniable social facts, at least at some point in the history of a special group, but they are ill-defined, all-embracing terms that are more emotionally evocative than scientifically descriptive. This issue can be clarified by noting that most of the problems associated with being a member of a special group that are discussed in the literature can be classified into four categories: societal reactions to special groups (e.g., slavery, immigration policy), mechanisms by which social and economic environments affect individuals (e.g., role modeling, restricted information), deleterious consequences for special groups as a whole (e.g., lower mean income, occupational segregation), and deleterious consequences for individuals' career development (e.g., unnecessarily constricted vocational choices). It would appear that the special-groups literature has given the most systematic attention to societal reactions to special groups and their deleterious consequences for those groups, whereas it has provided only a very ad hoc examination of the other two types of problem. The former group-level issues are useful for galvanizing concern for special groups and for designing social programs to aid whole social groups, but the latter individual-level issues are essential in diagnosing and treating clients in the traditional one-to-one or small group counseling settings.

A second limitation of the special-groups literature is its overemphasis on the uniqueness and externality of the problems special groups face. Such emphases are, once again, useful in galvanizing concern, but they may not be beneficial in

the long run if they discourage comparative analyses of both internal and external barriers to career development. A similar observation by Jaques and Kauppi (1983) about the disabled is relevant to all special groups: "Often to compensate for the inattention given to the disabled those in the field come to emphasize their uniqueness or specialness. Although this can serve to mobilize certain resources of help, the focus on the differences rather than on the similarities of the disabled to people in general may ultimately serve to isolate the disabled even further from the general society" (p. 250). Each special group may indeed have its own values and unique history, and members of these special groups may be readily identifiable in social settings because of their physical features or behavior. Counseling psychology has stressed the uniqueness of all individuals, and it is equally true that each social group can be considered unique among all others. But this does not mean that the career development problems that members of special groups have are also unique. For example, the need to balance family and career goals is frequently presented as a unique problem of women. The problem may be more prevalent and severe for women, but it is also a problem that faces minorities who move into the majority culture. Nor can it be said to be a problem that all white middle-class males escape. To take another example, the stereotypes of different special groups differ from one group to another, but the negative effects of stereotyping are cited in discussions of all special groups (Atkinson et al., 1979, p. 18). Furthermore, the solutions proposed to the problems of special groups (e.g., expand vocational options) often sound like good advice with regard to any client (Crites, 1981, chap. 8; Fitzgerald & Crites, 1980, p. 56; Jackson, 1981). Direct and systematic comparisons of the problems of different special groups have not been made in the literature, but it would be beneficial to distill the mass of discussion on the problems of special groups into a smaller set of systematic and theoretically meaningful principles applicable to all groups that would be useful in counseling settings.

The special groups literature has been rather forceful, overall, in condemning majority groups for the problems special groups have and in rejecting explanations that partially locate the source of career problems within special groups themselves. Much of the blame placed on majority groups for the career problem of special groups may be well deserved, but the special groups literature, with some notable exceptions (Richardson & Johnson, 1984), seems to have adopted an unscientific stance toward the possible role that group differences in traits or social practices may play in hindering career development. For example, in discussing her thesis that race is a prepotent factor in career outcomes, Smith (1983) stated that "This situation occurs not because there are inherent differences among the various races in ability, subscription to success goals, or attitudes but rather because structural factors found in labor market dynamics, institutional practices, and the legacy of racism serve to perpetuate a differential career development among Americans of different racial backgrounds" (p. 166). Although stated as an apparent fact, this is actually a matter of scientific debate,

particularly because racial differences in abilities (on unbiased tests) and in other career-relevant behaviors (e.g., fertility) have been well established.

Special groups are generally portrayed as different in social values and practices, differences that the literature argues should be more widely respected, but special groups are generally assumed *not* to differ in ways that could be taken as implying that one group is inherently different or in some way superior or inferior to another. Sex, race, and ethnic group differences in interests and abilities, for example, are usually discussed as products of socialization and of differential opportunity imposed by the majority culture, and authors who provide evidence suggesting otherwise (Benbow & Stanley, 1980; Jensen, 1969) are accused of being biased, racist, or sexist and of perpetuating negative, inaccurate, and destructive stereotypes. The stress on uniqueness has served to perpetuate an ad hoc and inconsistent approach to different special groups, and thus has continued to obscure rather than illuminate group differences in advantages and disadvantages that counselors should be aware of.

The rejection of possible group differences in capabilities or adaptive behavior (adaptive in American society) is clearly demonstrated by the efforts of some authors to counteract the *positive* stereotypes of Asian-Americans and to qualify their success (Sue & Kitano, 1979; Suzuki, 1977) and by claims that "the nature of stereotypes often seems to depend upon the moods or conditions of society rather than upon any real characteristics of the stereotyped group" (Sue & Kitano, 1979, p. 77). Group differences in values are sometimes used in explaining group differences in outcomes, but only in selected circumstances.

For example, the *lower-than-average* attainments of blacks, Hispanics, and Native-Americans are attributed to barriers imposed by the majority culture but the *higher-than-average* attainments of Asian-Americans and Jews are attributed to certain cultural values among the latter (Sue, 1979; Suzuki, 1977). Cultural values of special groups are generally rejected as explanations of lower-than-average attainments because they "blame the victim" (Suzuki, 1977, p. 27) and well documented group differences in abilities, (e.g., the superior science and math abilities of Asian-Americans) are seldom considered important in explaining either positive or negative group outcomes and are dismissed as stereotypes. It is not entirely clear how important group differences in abilities are, but it seems unwise to ignore them (Gottfredson, 1985b).

At the same time that the special-groups literature has maintained that deficit models ignore the strengths of a group, that literature itself has failed to describe those strengths or has dismissed putative career-related advantages (e.g., the conformity of Asian-Americans) as debilitating factors in other respects. Some of the putative advantages of majority males could similarly be redefined (e.g., high-level jobs are more stressful), but they never are in this literature. Discussions of Asian-Americans (who, in fact, achieve *higher* levels of education and occupation than do whites) leave the impression that to highlight the achievements or strengths of one group would be to weaken the claim that it—or any

special group—merits particular concern (Gump & Rivers, 1975). Characterizations of Asian-Americans as a “model minority” are sometimes viewed as a “divisive concept used by the Establishment to pit one minority against another by holding one group up as an example to others” (Sue, 1981, p. 117).

In short, the heavy emphasis placed by the special-groups literature on external constraints has constituted a beneficial corrective to the overemphasis in vocational theory on the volitional aspects of career development. However, that literature has promoted an overly narrow conception of the problems some special groups may face, and it has failed to accord much significance to the strengths that some groups have. This literature still appears to be concerned primarily with mobilizing concern, whereas more effort might now be devoted to constructively channeling the concern that has already been aroused.

ANALYSIS AND COMPARISON OF RISK FACTORS IN CAREER CHOICE

The foregoing discussion should not be construed as implying that members of special groups do not have problems that require special attention, or that research should not be devoted to special groups and their problems. What has been argued is that the special-groups literature has failed to take as broad a perspective as seems desirable, and that it has failed to examine the career problems of special groups systematically or analytically enough to provide much guidance to counselors in diagnosing and dealing with those problems at the level of the individual counselee.

The special-groups literature has dealt primarily with the problems that special groups face rather than with any strengths they may have; this chapter does also. This focus is not meant to imply that an analysis of a counselee's current or potential strengths is unimportant. On the contrary, such analyses are vital—especially for people who suffer from enduring handicaps. Gottfredson et al. (1984b) have argued, for example, that vocational counseling for the dyslexic *requires* a focus on developing compensatory strengths. Hershenson (1974) has pointed out that the focus on compensation in the rehabilitation literature is one that vocational psychology could profitably adopt. In short, compensatory strengths and strategies are important in career development, but it is beyond the scope of this chapter to deal with them.

The following discussion focuses on one aspect of career development that may recur throughout the life cycle—making occupational choices. Other tasks in career development are also important, but career choice is the task that traditionally has been of most concern in career counseling, so it is a particularly appropriate place to begin systematically outlining the career problems of special groups.

Fifteen social groups are systematically examined. These represent the groups that are most commonly researched or discussed, but they are not all that might be considered special groups. The object here is neither to advocate an unmanageable proliferation of special groups nor to denigrate or elevate the importance of any particular ones. Instead, the objective is to shift attention away from special group status and toward the problems that special group status actually poses for members of those groups. Thus, the groups used here should be considered as illustrative of analyses that could be performed with any special group. If white Protestant males are excluded, these groups represent at least 75% of the population.

The literature has dealt with several very different classes of problems. This chapter distinguishes among different types of individual-level problems: risk factors, underlying problems, symptoms (i.e., presenting problems), and criteria of successful development.

Risk Factors in Career Choice

It is useful to adopt the concept of risk factor in describing the career choice problems of special groups. Risk factors are attributes of the person or of the person's relation to the environment that are associated with a higher-than-average probability of experiencing the types of problems under consideration. A poor education is an example of a career risk factor because it does not bar one from succeeding occupationally, but it does decrease the *odds* of success; it is not a career problem itself, but it often contributes to such problems. For example, just as smoking increases one's chances of getting cancer, but by no means makes it a certainty, so too does being poorly educated decrease one's chances for succeeding occupationally.

This subsection of the chapter reviews the major career choice risk factors. The next subsection assesses how prevalent these risk factors may be in different segments of the population. What immediately follows is an attempt to organize diverse ideas and bits of information from many sources into a few analytically useful categories of risk. The list is only a starting point for more explicit and systematic discussion of the problems special groups face; it can no doubt be improved by others.

Twelve career choice risk factors are organized here according to whether they represent: (a) comparisons of the individual with the general population; (b) comparisons of the individual to other persons within the same social circle; or (c) family responsibilities. These risk factors appear to represent the major attributes and circumstances having a deleterious effect on career choice processes as identified by the special-groups literature, vocational development theory, and status attainment research in sociology.

Comparisons With the General Population: Low Intelligence, Poor Education, Poverty, Cultural Isolation, Low Self-esteem, and Functional Limita-

tion. Two decades of status attainment research in sociology (Blau & Duncan, 1967; Campbell, 1983; Duncan, Featherman, & Duncan, 1972; Jencks et al., 1972, 1979; Sewell & Hauser, 1975) have shown quite clearly that level of occupation aspired to and level actually attained are both influenced by differences in socioeconomic background, intelligence, and educational level attained. Since at least the time of the War on Poverty in the 1960s, these three variables have been perceived as keys to reducing inequalities between the less advantaged and the more advantaged segments of society. There continues to be debate about just how strong each of these influences is relative to the other and about why they are important (Campbell, 1983; Gottfredson, 1985a), but it is safe to say that higher intelligence (net of socioeconomic background) is predictive of getting better grades, doing better on standardized achievement tests, persisting in school and attaining higher levels of education, having higher educational and occupational aspirations, and performing better in training and on the job (Gottfredson, 1985a). Getting more education (net of ability) is associated with getting more prestigious and better paying jobs. More advantaged socioeconomic background, depending on how it is measured, predicts (net of ability) higher educational and occupational aspirations, getting more education, and (net of ability and education) higher income. Differences in socioeconomic background are usually interpreted as differences in economic resources, so coming from a poor family is listed here as a risk factor. Socioeconomic background actually can be decomposed theoretically into several components, and some of the other components (e.g., cultural isolation) are considered separately in the following.

Being culturally isolated or segregated and having low self-esteem have both been widely considered to be handicaps for minorities and women, although their actual relation to occupational attainment is not yet well understood. Low self-esteem is usually considered to be a separate problem from that of cultural isolation, but one which is likely to result from being a member of a culturally segregated group that is commonly viewed as being deviant or inferior. In a review of the literature on self-esteem, Gecas (1982) concluded that low self-esteem is associated with undesirable outcomes, including lower academic interests, aspirations, and achievements, but that it is not clear whether the converse is true, that is, that high self-esteem has favorable consequences. Some investigators have argued that a "medium" amount of self-esteem is optimal. Other aspects of self and self-concept are frequently invoked to explain the lower achievement levels of certain groups, but the most common have not stood up well to empirical test. For example, accumulated research questions the existence of fear of success as an enduring and stable personality trait and as a motive that characterizes primarily females (Minton & Schneider, 1980, p. 289); it also has been found that achievement motivation is not useful in predicting occupational attainment (Spencer & Featherman, 1978).

Cultural isolation refers to the common focus in the special-groups literature on the difficulties members of special groups have in fitting into and succeeding

in a white man's occupational world. This term appears to encompass a variety of more specific problems that have been identified in the literature. For example, the apparent failure of many youngsters to identify with cross-race or cross-sex role models, presumably because of a sense of social distance or difference, may explain why the literature has placed so much stress on the detrimental effects of not having *same-sex* and *same-race* occupational role models. Cultural isolation also refers to not knowing the social behaviors appropriate in majority culture settings as well as to not being accepted as a member of the majority group (which is usually assumed to be white males) and not being accorded the same respect, understanding, and assistance (e.g., mentoring) as would a member of the majority group. For example, two arguments that have been put forward in favor of school desegregation have been that it might enable minority students to learn how to deal more effectively with whites, which presumably is necessary for their occupational success in a white occupational world, and that it might provide them access to useful informal networks (i.e., white networks) of information about job opportunities (Braddock, Crain, & McPartland, 1984).

Some individuals are at risk of having career problems because they have some unusual functional impairment or limitation such as dyslexia or the loss of hearing, sight, or use of limbs. These are deficits that can be considered the result of some genetic or environmental accident and as generally being outside the normal range of variation. Research has not made clear to what extent the occupational handicaps experienced by such people are due to the functional limitations themselves rather than to the social problems that generally accompany those limitations. However, it seems clear that many functional impairments can restrict the range of occupational alternatives, regardless of whatever secondary handicaps they may typically generate (Felton, Perkins, & Lewin, 1966; Ferron, 1981). Functional limitations obviously differ widely in type, severity, and social visibility (Hershenson, 1974). Career counselors may seldom see the most severely impaired (e.g., mentally retarded, schizophrenic, blind, deaf) because such cases usually are handled by more specialized service providers, but most counselors can expect to see some slightly to moderately dyslexic, hearing or speech impaired, physically handicapped, or otherwise functionally limited clients, because 17% of the population aged 18-64 in 1978 reported having some disability that limited the type or amount of work they could do (Lando, Cutler, & Gamber, 1982, Table 7). See Lando et al. (1982, Table 76) for the most common disabling conditions for different age groups and see Dearman and Plisko (1981, Table, 6.4) for the percentages of school students with different types of handicap.

Different Within Own Social Circle: Nontraditional Interests, Socially Isolated, Less Intelligent Than Family and Peers, and More Intelligent Than Family and Peers. The problems associated with having nontraditional interests are most commonly recognized in the literature on women's career development, but they are also a common theme in discussions of ethnic minorities. Rodriguez

(1979), for example, has discussed the family strains created by being a "scholarship boy"—that is, being upwardly mobile, entering a world alien to that of one's past, and thereby distancing or estranging oneself from childhood family and friends and from their values and expectations. A person may be a potential nontraditional in a variety of ways, including gender, social class, and ethnic group.

One need not be culturally different to be considered odd or different or to be cut off from the social interaction that most of us take for granted. Being *culturally* different means that one is segregated *together* with one's cultural group away from the rest of society. Being *socially* isolated refers here to being segregated, often as an individual, from the rest of one's own cultural group. This social isolation can occur because of societal reactions to unusual attributes of the person (such as blindness, disfigurement, or homosexuality) but also because some functional limitations (such as dyslexia or deafness) interfere with normal communication and thus with the everyday social learning and contact that it facilitates (see Lacey, 1975, on the deaf). The fairly new emphasis on mainstreaming handicapped school children and on creating a barrier-free environment for all physically disabled people appears partly to reflect a concern with decreasing the social isolation of the handicapped and its resultant disadvantages for them. Many of the arguments in favor of integrating handicapped with nonhandicapped populations parallel those given for integrating different racial/ethnic groups, including the increased capacity of the handicapped groups to function successfully in the majority society and increased acceptance and understanding across groups (Hanline & Murray, 1984).

As was noted earlier, *low social class* or *poor socioeconomic background* are broad terms that refer to a host of attributes that have been considered deleterious to career development. Lack of financial resources for pursuing a desirable education or occupation is one risk factor already noted. Another factor, discussed earlier, is segregation from the middle-class society which is commonly presumed to dominate cultural and economic affairs. But two other risk factors are evident if social classes are viewed as one way in which people define their own social circle. Considerably higher occupational attainment is required for youngsters from the higher social classes than from the lower social classes in order for those youngsters to equal the average level of attainment within their own social settings and thus to be considered successes in those settings. This is consistent with the fact that aspiration level is related to social class even after intelligence is controlled (Sewell & Shah, 1968). It is also well established that youngsters from the higher social classes tend to be more intelligent than youngsters from lower social classes, but that there is still much overlap in intelligence across the social classes and much variability within them (Sewell & Shah, 1968). Two types of youngsters appear to be at particular risk because of these circumstances. First, highly intelligent lower class youngsters may be likely to have unrealistically *low* aspirations, and less intelligent youngsters from the

higher social classes may be likely to have unrealistically *high* aspirations (Gottfredson, 1981). The gifted are a subgroup of all people with high intelligence compared to family and peers; not surprisingly, one career development problem often associated with giftedness is underachievement. The two risk factors just described seem to be a source of much of the unrealism that counselors encounter and so can be expected to be prevalent problems in any population.

Family Responsibilities: Primary Caregiver, Primary Economic Provider. Conflict between family and career is invariably discussed as one of the major problems women face, but two types of work-family conflict have actually been identified in the special-groups literature, and they clearly are not restricted to being female. The first risk factor is that of being (or expecting to be) a primary caregiver. This refers to having major responsibility for the daily care of children, elderly parents, or other dependents. Not only is having children to care for a risk factor, but so too is bearing children at younger rather than older ages (Richardson & Johnson, 1984). The second risk factor is that of being (or expecting to be) a primary economic provider (i.e., having economic dependents). In discussions of the career problems of women, being an economic provider is usually seen as being consistent with having a career orientation and thus as not being a handicap in career development. However, the need to support a family can seriously impede optimal career development, if it means foregoing education or training for a more desirable job in order to make ends meet now. Newly divorced homemakers who reenter the job market and teenage parents both have been noted to face this family-career conflict. A similar, but perhaps less severe problem, is that of the youngster from a poor family who is expected to go to work as soon as possible to help support parents and siblings. It also is probably the case that many men who are primary economic providers may move into fields of work that do not particularly interest them in order to provide the income level or security that is desired or expected by the families they support (Gottfredson, 1981).

Differences in Risk Rates by Special Group

The foregoing risk factors are not restricted to any particular special group, nor even to special groups in general. They do, however, tend to be especially troublesome for some groups because the members of those groups have a higher than average probability of being at risk. Another useful step, then, in understanding the career choice problems of special groups would be to outline the relative risk rates for different groups for each of the risk factors.

Relative risk rates are well known for some risk factors and for a few special groups; relevant data appear to be more scattered for additional risk factors and special groups; and data appear to be nonexistent for yet others. In short, some

The data on which the estimates in Table 5.1 are based are described in the following discussion and many are presented in Table 5.2. All hypotheses are for people in their teens and 20s, who are presumed here to be the major clientele of

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TABLE 5.2
Indicators of the Relative Prevalence of Certain Career Development Risk Factors Among Young People

Indicators of Risk Factor	White		Black		Hispanic		Native-American		Asian-American		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Low Intelligence												
<i>Standardized tests: high school sophomores, 1980 (means)^a</i>												
Vocabulary	52.0		42.4		44.2(Mex)		45.0		51.6		50.0	
					44.0(PR)							
					48.1(Cu)							
Math part 1	51.8		43.1		44.5(Mex)		44.6		55.7		50.0	
					43.9(PR)							
					48.0(Cu)							
<i>Standardized tests: high school seniors, 1980 (means)^a</i>												
Vocabulary part 1	51.4		43.6		44.5(Mex)		45.8		50.2		50.0	
					44.3(PR)							
					48.5(Cu)							
Math part 1	51.5		42.8		43.8(Mex)		45.2		54.2		50.0	
					43.4(PR)							
					48.2(Cu)							
<i>SAT scores, college-bound seniors, 1982 (means)^b</i>												
Verbal	444		341		379(Chic)		—		390		—	
					360(PR)							
Math	483		366		416(Chic)		—		513		—	
					403(PR)							
<i>GRE combined quantitative and verbal, 1980/81 (means)^c</i>												
	1039		733		847(Mex)		925		1054		1015	
					801(PR)							
<i>GRE quantitative, % below score 500, 1980/81^d</i>												
	40.7		87.3		70.8(Mex)		59.8		26.5		44.2	
					74.0(PR)							
Poor Educational Background												
<i>Years of education: 1980^e</i>												
% with less than 12 years, aged 20-24	16.4	14.1	30.2	23.3	41.6	38.2	34.3	31.2	12.5	14.4	19.2	16.4
% with at least 16 years, aged 25-29	25.8	22.0	10.7	12.1	9.7	8.4	8.5	7.7	40.5	35.9	23.6	20.6
<i>Representation among degree holders, 1978/79 or 1979/80: ratio of % of degrees to % of age-relevant population^f</i>												
(Numbers in parentheses are the ratio of % female of degree holders to % female of age-relevant population)												
All fields: BA	1.11		0.51		0.62		0.57		1.13		—	(0.99)
MA	1.10		0.58		0.36		0.66		1.05		—	(0.98)
PhD	1.11		0.41		0.31		0.66		1.33		—	(0.59)
Professional	1.14		0.35		0.45		0.50		0.95		—	(0.54)
Quantitative fields: BA	1.13		0.32		0.55		0.43		1.93		—	(0.50)
MA	1.12		0.21		0.29		0.50		2.79		—	(0.36)
PhD	1.12		0.16		0.21		0.33		2.71		—	(0.30)
Professional	1.12		0.35		0.47		0.50		1.58		—	(0.50)

(Continued)

TABLE 5.2
(Continued)

Indicators of Risk Factor	White		Black		Hispanic		Native-American		Asian-American		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Comes From Poor Family												
% of children below poverty level												
Below age 15, 1979 ^g	12.4		40.8		27.6		n.a.		n.a.		16.8	
Aged 15-17, 1979 ^g	8.6		42.3		21.8		n.a.		n.a.		13.6	
Families & unrelated individuals, 1975 ^h	9		28		24(Mex) 32(PR)		26		17(Ch) 7(Ja) 6(Ph)		n.a.	
Income, median household per capita, 1975 ⁱ	4333		2263		2130(Mex) 2153(PR)		2453		3867(Ch) 6105(Ja) 3897(Ph)		n.a.	
Unemployment rate, aged 40-44, 1980 (a parental age group) ^j	3.7	4.4	7.8	6.8	6.0	8.0	9.7	9.2	2.5	4.4	4.1	4.8
Cultural Isolation or Segregation												
Limited or non-English speaking: elementary/secondary students, 1978 ^k							8.5		14.5		2.2	
% of enrollment (of same race)	0.2		0.2		25.9							
*Occupations of workers aged 16 or over, 1980 ^l												

% managerial or professional
Occupational prestige, aged 16-
74, 1976 (mean)^m

24.4	22.0	10.8	15.4	11.4	11.8	13.8	16.9	32.9	23.2	22.5	20.7
39.5	38.8	30.5	32.0	30.4	30.0(Mex) 32.1 32.9(PR)	33.9	33.5	43.9	38.3(Ch) 40.8 36.1(Ja) 37.0 40.3(Ph)	n.a.	

% of married women (husbands
present) married to white men,
1970ⁿ

aged 25-34	—	99.5	—	0.6	—	17.5	—	35.8	—	11.0(Ch) 30.6(Ja)	—
aged 35-44	—	99.7	—	0.6	—	15.0	—	35.2	—	6.9(Ch) 39.5(Ja)	—
aged 45-54	—	99.8	—	0.6	—	14.9	—	35.0	—	5.2(Ch) 14.9(Ja)	—

% of children living with mothers
only, 1980^p

aged 15-17	14.4	46.8	20.9	n.a.	n.a.	19.1
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Functional Limitation

Work disability, aged 18-34,
1978^q

% disabled	5.5	6.2	10.2	7.3	2.3	12.2(Mex) 5.6 34.9(PR)	n.a.	n.a.	8.3	8.6
% severely disabled	1.8	1.9	3.6	3.5	1.4	21.2(Other) 4.8(Mex) 5.5 30.9(PR) 4.8 10.4(Other)	n.a.	n.a.	2.4	2.9

(Continued)

TABLE 5.2
(Continued)

Indicators of Risk Factor	White		Black		Hispanic		Native-American		Asian-American		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Primary Caregiver												
<i>Number of live births per 1000 women, 1975^a</i>												
aged 10-14	—	0.6	—	5.1	—	n.a.	—	n.a.	—	n.a.	—	1.3
aged 15-17	—	28.3	—	86.6	—	n.a.	—	n.a.	—	n.a.	—	36.6
aged 18-19	—	74.4	—	156.0	—	n.a.	—	n.a.	—	n.a.	—	85.7
<i>% of women still childless, 1982^c</i>												
aged 18-19	—	89.7	—	70.9	—	78.8	—	n.a.	—	n.a.	—	86.9
aged 20-24	—	69.4	—	48.9	—	51.1	—	n.a.	—	n.a.	—	66.6
aged 25-29	—	40.8	—	23.8	—	29.4	—	n.a.	—	n.a.	—	38.8
<i>% of EVER MARRIED women still childless, 1970^e</i>												
aged 15-19	—	53.6	—	32.6	—	42.8(Mex)	—	42.5	—	55.3(Ch)	—	50.9
						35.2(PR)				52.1(Ja)		
						42.5(Total)				48.1(Ph)		
aged 20-24	—	37.4	—	20.6	—	22.0(Mex)	—	20.9	—	45.9(Ch)	—	35.6
						21.3(PR)				46.1(Ja)		
						24.3(Total)				32.7(Ph)		
aged 25-29	—	16.0	—	12.6	—	9.3(Mex)	—	9.6	—	32.3(Ch)	—	15.8
						9.6(PR)				29.1(Ja)		
						11.3(Total)				21.7(Ph)		
<i>Number of children ever born per 1000 women, 1982^c</i>												
aged 18-19	—	118	—	370	—	264	—	n.a.	—	n.a.	—	156
aged 20-24	—	444	—	859	—	782	—	n.a.	—	n.a.	—	502
aged 25-29	—	1104	—	1668	—	1500	—	n.a.	—	n.a.	—	1176

Number of children ever born per 1000 women, 1970^e

aged 15-19	—	70	—	118	—	111(Mex)	—	117	—	19(Ch)	—	76
						191(PR)				27(Ja)		
						119(Total)				63(Ph)		
aged 20-24	—	656	—	924	—	982(Mex)	—	994	—	257(Ch)	—	686
						1109(PR)				279(Ja)		
						943(Total)				574(Ph)		
aged 25-29	—	1713	—	2035	—	2226(Mex)	—	2330	—	1013(Ch)	—	1745
						2133(PR)				1035(Ja)		
						2034(Total)				1216(Ph)		

Primary Economic Provider

% still single (never married), 1982^c

aged 18-19	94.2	(83.1)	98.7	(96.0)	87.8	(74.4)	n.a.	n.a.	94.9	(84.9)
aged 20-24	70.1	(50.5)	82.3	(71.5)	65.6	(44.7)	n.a.	n.a.	72.0	(53.4)
aged 25-29	34.1	(20.6)	48.3	(40.6)	31.1	(20.3)	n.a.	n.a.	36.1	(23.4)

% married with spouse present, 1982^c

aged 18-19	4.2	(14.1)	0.7	(2.7)	7.7	(20.1)	n.a.	n.a.	3.7	(12.5)
aged 20-24	26.6	(41.7)	15.7	(22.3)	29.7	(44.7)	n.a.	n.a.	24.9	(39.0)
aged 25-29	56.8	(65.6)	40.7	(39.7)	58.6	(63.1)	n.a.	n.a.	54.7	(62.1)

Note: The Hispanic category cannot be presumed mutually exclusive with the other racial/ethnic groups unless indicated otherwise by an asterisk (*). Prior to 1980, the Census Bureau never singled out Spanish-origin persons as a mutually exclusive racial category. Instead, persons in the Spanish-origin category could be of any race. The practice in the other sources of data used here is unclear. Mex = Mexican. PR = Puerto Rican. Chic = Chicano. Cu = Cuban. Ch = Chinese. Ph = Filipino. Ja = Japanese.

^aDearman & Plisko (1981, Table 2.27, SD = 10). ^bBerryman (1983, Table 48, SD = 100). ^cBerryman (1983, Table 51). ^dBerryman (1983, Table 49). ^eU.S. Bureau of the Census (1984a, calculated from Table 262). ^fBerryman (1983, Tables 2, 5-7). ^gU.S. Bureau of the Census (1982, Table 48). ^hU.S. Commission on Civil Rights (1978, Table 4.6). ⁱU.S. Commission on Civil Rights (1978, Table 4.2). ^jU.S. Bureau of the Census (1984a, Table 272). ^kDearman & Plisko (1981, Table 2.11). ^lU.S. Bureau of the Census (1983b, Table 1). ^mU.S. Commission on Civil Rights (1978, Table 3.4). ⁿU.S. Bureau of the Census (1973, calculated from Tables 10 & 11). ^oU.S. Bureau of the Census (1982, Table 23). ^pLando, Cutler, & Gamber (1982, Table 7). ^qNational Center for Health Statistics (1977, Table 1). ^rU.S. Bureau of the Census (1984b, Table 10). ^sU.S. Bureau of the Census (1973, Tables 8 & 13). ^tU.S. Bureau of the Census

most career counselors. Some indication is provided about how the hypotheses may differ for older groups of people.

Low Intelligence. Eysenck (1984) has summarized the research on racial/ethnic differences in IQ. According to his review, "The highest IQs in different parts of the world have been obtained by Mongoloid populations, particularly the Japanese and Chinese, both in their own countries and in emigrated samples studied in the United States" (p. 260). The Japanese and Chinese appear to score about a half a standard deviation above the white IQ mean on nonverbal tests. Mongoloids "are followed by Caucasoid populations in Northern Europe or emigrated from there to the United States, Australia, and elsewhere. Caucasoid groups in Southern Europe come next, followed by Caucasoid peoples in the Middle and Near East" (p. 260). In the IQ metric, the mean scores of these Caucasoid groups range from about 100 to around 90. Eysenck's summary continues, "Amerinds [American-Indians] and Mexican-Americans come next, followed by Afro-Americans, African Negroids, and Australoids" (p. 260). Mean IQs for the former groups range in the high 80s and mean IQs for the latter groups nearer the low 80s. Data are sparser for some groups than for others, but Eysenck notes that there have been hundreds of studies on blacks and they "agree on the fact that the mean IQ of American blacks is approximately 85, and that they score somewhat higher on verbal than on nonverbal tests" (p. 258). Gordon (1980b) has also shown that the size of the black-white difference in IQ has not changed since at least World War I. The foregoing data are consistent with the fact that blacks are more than twice as likely as whites to be in classes for the mentally retarded and Asian-Americans are more than twice as likely as whites to be in programs for the gifted and talented (Dearman & Plisko, 1981, Tables 2.13 and 6.5). Eysenck (1984) also refers to the high IQ of British Jews, which is consistent with the many studies of American Jews (Hennessy & Merrifield, 1978). Whereas Mongoloids are particularly high on nonverbal IQ tests, Jews are particularly high on verbal IQ tests—113 according to a review by Gordon (1980b).

Table 5.2 shows aptitude and achievement test scores for American students at different educational levels. The vocabulary test scores for high school sophomores and seniors, shown in Table 5.2, are good measures of *g* (general intelligence), and they reveal the same ranking described above in Eysenck's review of other sorts of data. Scores for these students on seven diverse tests were reported (not shown here) and they all provide consistent evidence about racial/ethnic differences in mental abilities: Asian-Americans score as well as or better than whites on all tests; some Hispanic groups (Cubans) and American-Indians score lower than whites on all tests (by about .2-.5 SDs), followed by other Hispanic groups (Mexican-Americans and Puerto Ricans) and then by blacks, who score close to one standard deviation below whites on most tests (Dearman & Plisko, 1981, Table 2.27). Racial/ethnic differences in intelligence

may be somewhat smaller for particular educational groups than for the general population, because less intelligent people tend not to go as far in school as other people, but Table 5.2 shows that sizeable racial/ethnic differences in academic aptitude remain at all levels of education (see also Hennessy & Merrifield, 1978). Most of those racial/ethnic differences are found in the different individual fields of study as well (Berryman, 1983, Tables 50 & 51).

Profile differences by ethnic group among the high school students in Table 5.2 are also informative. In particular, mean scores of Asian-Americans equal those for whites on all tests except math, on which the former outperform whites by about .4 standard deviation. Data on spatial ability are available elsewhere for seniors (who are less representative of the general population than are sophomores) and they show that once again Asian-Americans outperform whites by about .4 standard deviation (Dearman & Plisko, 1981, Table 2.27). Table 5.2 shows that this strong quantitative ability profile for Asian-Americans is found among college-bound high school students (students taking the SAT) and among those seeking admission to graduate and professional schools (students taking the GRE). This elevated quantitative profile among Asian-Americans is interesting, because it is the typical profile among applicants to programs of study in engineering, mathematics, and the physical sciences (Berryman, 1983, Tables 35 & 36), and because Asian-Americans are in fact overrepresented in scientific and technical jobs.

Mental abilities are important for job performance in all jobs, but they are particularly important in high-level jobs (Gottfredson, 1985a). Nevertheless, it should be noted that they are not the only abilities that are important on some jobs and racial/ethnic groups appear to differ on these other capacities as well. In particular, psychomotor abilities are particularly important in some jobs, mostly low-level ones, and Asians-Americans, Hispanics, and Native-Americans have all been found to outperform whites on the psychomotor tests of the General Aptitude Test Battery (GATB), and blacks score only slightly lower than whites on such tests (Hunter, 1983).

Sex differences in mental abilities are small by comparison to racial/ethnic differences. There are no sex differences in mean intelligence, but there is evidence that females are less variable in general intelligence than are males, meaning that fewer of them are found at the high and low extremes of intelligence (Jensen, 1980, pp. 627-628). Males are higher on spatial visualization ability on the average (Jensen, 1980, pp. 626-627; Minton & Schneider, 1980, pp. 273-275), and there appear to be fewer females than males with extremely high math reasoning ability even after controlling for interest and prior coursework (Benbow & Stanley, 1980). Females do somewhat better than males on some measures of verbal aptitude, in particular, on tests of verbal fluency (Minton & Schneider, 1980, pp. 271-272). Females also appear to be somewhat superior to males in social sensitivity or insight as measured by the ability to judge emotions or states communicated by nonverbal cues (Minton & Schneider,

1980, p. 295). Finally, males surpass females in gross motor coordination, and the reverse is true for fine motor coordination (Minton & Schneider, 1980, p. 277).

This author knows of no evidence showing that the distributions of intelligence among the deaf, blind, dyslexic, and mentally ill differ from that of the general population, but there is some difficulty adequately assessing the intelligence of such groups. The mentally retarded are, by definition, of low intelligence.

There is no convincing evidence that younger cohorts are either more or less intelligent than older cohorts.

Poor Academic Background. Table 5.2 provides data on educational attainment by sex and race for young people. (Cohorts born more recently are more highly educated than cohorts born earlier this century.) Females are less likely than males to drop out of high school, although the sex difference varies considerably by racial/ethnic group. Among persons aged 20–24, Hispanics are most likely to have dropped out of high school, followed by Native-Americans and then by blacks. Dropout rates for Asian-Americans are similar to those for whites. Whites are 2–3 times and Asian-Americans are about 4 times as likely to get 16 or more years of education as are Hispanics, blacks, and Native-Americans. Rates are approximately equal for males and females. Blacks, Hispanics, and Native-Americans are much less likely than whites to obtain a BA or higher degree; whites, Asian-Americans, males, and females are all about equally likely to get BAs or MAs, but Asian-Americans are *more* likely than whites to get PhDs and females are much *less* likely than males to get PhDs or professional degrees. Thus, males are more likely than females to be found at the extremes of educational attainment, both high and low, and the hypothesis of no sex difference in educational level shown in Table 5.1 should be understood to be an oversimplification of this more complex sex difference. Other data suggest that Jewish-Americans obtain more education than do either white Gentiles or Asian-Americans. For example, one follow-up of high school students, who were members of Jewish organizations, reported that 95% attended college (Swerdlloff & Rosen, 1973).

Table 5.2 also provides some data on field of degree, which is an issue of particular concern in the special groups literature. Women, Native-Americans, and especially blacks and Hispanics are more underrepresented among people obtaining degrees in quantitative-based fields than in other fields. In contrast, Asian-Americans are 2–3 times as likely as whites to get degrees in quantitatively-based fields.

Work-disabled individuals tend to get less education than do the nondisabled. For example, Lando et al. (1982, Table 33) reported that 26% of work-disabled males aged 18–34 in 1978 had less than 12 years of education, and 14% had 16 or more years, as opposed to 17% and 21%, respectively for the nondisabled.

Percentages were 37% and 0.4% for the severely disabled males. Among females aged 18–34, percentages were 17% and 14% for the nondisabled, 30% and 10% for all disabled females, and 48% and 0.4% for the severely disabled. Although these data are not directly comparable to the data in Table 5.2, they suggest that the disabled resemble blacks and Hispanics in education more than they resemble whites, and that the severely disabled (especially women) fare worse than any of the racial/ethnic groups. Educational disadvantages could be expected to differ according to the type of disability in question and according to the severity of the functional limitation. For example, Gottfredson et al. (1984b) found that dyslexics obtain less education (particularly graduate and professional degrees) than would be expected on the basis of their intelligence and social class, and that severe dyslexics were at a greater disadvantage than mild dyslexics.

Comes From Poor Family. Table 5.2 shows the percentage of *children* who live in families below the poverty line, the percentage of *households* below the poverty line, and the median household income per capita. These data show that black, Hispanic, and Native-American youngsters are probably much less likely than whites to have *family* financial resources at their disposal. Asian-Americans range from being somewhat less favored to considerably more favored than whites in this regard, depending on the particular Asian-American group in question. The same general trends are found for another indicator of family economic well-being—the unemployment rate among an age group that can be presumed to be parents of people in their teens and 20s.

Family poverty is presumed to be equal for male and female youth because they grow up in the same families. Although relevant data may exist for persons with handicaps, they were not located. Therefore, no hypotheses are presented for most of the handicapped groups. The mentally retarded may tend somewhat to come from somewhat poorer families, because *some* types of mental retardation run in families and mental retardation of parents can be presumed to adversely affect family economic well-being. There is some evidence that certain other handicapped groups such as dyslexics do *not* come from poorer families, but are fairly representative of all economic strata (Klasen, 1972, pp. 149, 169).

Cultural Isolation/Segregation. It is not clear how to operationalize cultural isolation or segregation, but several relevant indices are shown in Table 5.2. If having limited proficiency in English is used as one indicator, it suggests that Hispanic children are most often isolated from the majority culture, followed by Asian-Americans, and then by Native-Americans. Essentially all whites and all blacks are English speakers. A different picture emerges if isolation is measured in terms of socioeconomic or occupational level of each racial/ethnic group as a whole, which might be considered an indicator of the occupational exposure youngsters receive. The two measures used here—mean occupational prestige

level and percentage of workers who are professionals or managers—suggest that familiarity with high level jobs is likely to be at least as high for Asian-American youth as for white youth and to be considerably lower for blacks, Hispanics, and Native-Americans. Although comparable data are not available for white ethnics, some differences in occupational attainment are well documented. For example, Jews are greatly over represented in scientific and scholarly careers and among leading intellectuals in the United States, and Catholics are underrepresented in both areas (Hardy, 1974; Kadushin, 1972; Wuthnow, 1977). Rates of intermarriage with whites provide yet another pattern of isolation from the dominant culture. Among married women with husbands present, only about 1 in 200 blacks is married to a white man versus 1 in 3 for most age groups of Japanese- or Native-American women. Rates for Hispanics and Chinese are intermediate.

The data presented here suggest that different racial/ethnic groups probably differ considerably in their isolation from the white majority culture depending on the particular indicator in question and that they are isolated according to some indicators but not others. This is consistent with data on racial segregation; for example, black-white segregation is high in housing, lower in schooling, and yet lower in employment (Becker, 1981). It is assumed here that, overall, all racial/ethnic groups are somewhat culturally isolated and segregated.

It is also assumed that men and women are culturally isolated from each other to some degree, but this assumption reflects a common belief more than any particular empirical evidence. To the extent that women are culturally isolated, it might be expected that children living only with their mothers might also be somewhat isolated. Table 5.2 shows that in 1980, 47% of black teenagers and 21% of Hispanics versus only 14% of whites were somewhat isolated according to this criterion. Comparable data for children were not available for the other racial/ethnic groups, but related data (U.S. Bureau of the Census, 1983a, calculated from Tables 121, 161) on the percentage of families that are female-headed (no husband present) show that Native-American families in 1980 were about twice as likely as white families to be female-headed (23% vs. 11%). Among Asian-Americans, Japanese and Philipino families were equally likely (12%) and Chinese families were less likely (8%) than white families to be female-headed. People with handicaps are presumed to be no more and no less *culturally* isolated than the nonhandicapped members of their social groups.

Functional Limitation. Approximately one third of adults aged 20–34 in 1972 (not shown in Table 5.2) reported some chronic health problem, and about 7% reported that they were disabled to the extent that their condition limited the type or amount of work they could do; 2% reported being severely disabled (Krute & Burdette, 1981, Table J). By age 55–64, $\frac{3}{4}$ of adults reported some chronic condition, and 29% reported being work disabled (18% severely so). Some conditions are more prevalent among whites than nonwhites (e.g., respira-

tory or digestive problems, neoplasms), but others are more prevalent among nonwhites (e.g., cardiovascular, mental, and urogenital problems; Krute & Burdette, 1981, Table I). However, nonwhites are more often disabled by their conditions; among adults aged 20–64 in 1972, about 14% of whites were disabled, but 19% of nonwhites were. A slightly larger proportion of women than men had some chronic condition (51% vs. 46%) and were disabled (15% vs. 14%; Krute & Burdette, 1981, Table F). As with race, the sex differences vary according to the specific condition in question. A few specific examples illustrate this variability. The percentages of men, women, whites, and nonwhites who were disabled because of the following conditions are, respectively, 0.8, 0.5, 0.7, and 0.3 for hearing problems; 0.8, 0.8, 0.8, and 1.1 for visual impairments; 2.5, 3.2, 2.6, and 5.3 for mental problems; and 0.8, 1.4, 1.2, and 0.4 for nonrespiratory allergies (Krute & Burdette, 1981, Tables F and H). Detailed data for different nonwhite categories are sparse, but they suggest that racial/ethnic groups cannot be assumed to have the same types or numbers of disabilities. Although the data for some Hispanic groups seem suspect, Table 5.2 shows data for the percentages of people aged 18–34 in 1978 in different racial/ethnic groups who reported having a disability that limited the type or amount of work they do. The handicapped groups listed in Table 5.1 of course have at least one functional limitation by definition.

Self-esteem. Low self-esteem has commonly been attributed to all groups that have been subject to discrimination and negative stereotyping, but empirical research appears to contradict this assumption. Reviewers outside the special-groups literature have repeatedly concluded from the extensive body of research on self-esteem that general self-esteem among blacks is equal to or greater than that of whites (Gecas, 1982; Gerard, 1983) and that males and females report similar levels of self-esteem from the early school years through adulthood (Minton & Schneider, 1980, p. 315). Differences in self-esteem by social class are negligible (Gecas, 1982). Thus, it cannot be assumed a priori that any racial/ethnic or other special group is at particular risk of low self-esteem. There is some suggestion, however, that racial desegregation can damage the self-esteem of the less successful group (Gecas, 1982; Gerard, 1983). There is also some evidence that the self-esteem of functionally handicapped groups suffers in nonhandicapped settings. For example, the self-esteem of the educable mentally retarded is higher in handicapped as opposed to nonhandicapped settings, unless the nonhandicapped setting is specifically structured to prevent or obscure the unfavorable social comparisons that normally occur (Madden & Slavin, 1983). Several studies reviewed by MacMillan (1977, pp. 257–258) showed that self-concepts became more favorable when children were placed in classes for the educable mentally retarded; and self-concepts became less favorable when the children were returned to regular classes, probably because of changes in referent group. To some extent, social or cultural isolation may actually protect self-

esteem when social comparison processes (Gecas, 1982) in more integrated settings are likely to be unfavorable.

Authors in the special-groups literature generally cite studies that apparently support the contention that there are race and sex differences in general self-esteem (Fitzgerald & Betz, 1983), so there is some inconsistency here that must be resolved. Table 5.1 relies on the conclusions of experts on self-esteem outside the special-groups literature (Wylie, 1984).

There is, however, more consensus that specific components of self-esteem differ by race and sex. For example, self-efficacy, self-confidence, locus of control, and related perceptions of competence (as opposed to self-worth) appear to differ by race, sex, and power relations in specific circumstances (Betz & Hackett, 1981; Gecas, 1982; Minton & Schneider, 1980, pp. 286–288, 450). Research that controls for the actual differences in competence described above (Betz & Hackett, 1981) suggests that concepts of self-efficacy may be more useful than concepts of self-worth for explaining the career choices of some special groups.

Different Within Own Social Circle: Nontraditional Interests, Social Isolation/Segregation, Low Intelligence Compared to Family and Peers, and High Intelligence Compared to Family and Peers. The author knows of no evidence concerning rates for nontraditional interest, but it is assumed here that majority whites are traditional and that females are now more likely to have nontraditional interests than are males.

There is no reason to presume that individuals of any particular racial/ethnic group or sex are especially likely to be isolated within their own social groups. Handicapped individuals can be presumed to be, but most evidence is anecdotal. Measures of psychological social distance suggest that some disabled groups (e.g., mentally ill, mentally retarded, alcoholic) are much more isolated by negative social reactions than are others (e.g., diabetic, amputee, blind; Tringo, 1970).

The mentally retarded are undoubtedly of lower intelligence than many or most of the people in their own social circles, but there seems no reason to expect members of any other special group listed in Table 5.1 to be especially likely to be at either the extreme low or high ends of the intelligence distribution of their family and peers.

Primary Caregiver. If the presence of children is taken as an indication that a person is a primary caregiver, fertility data provide some evidence concerning race and sex differences in this risk factor. (It is assumed here that being a mother is much more demanding of caregiving and a more serious family–work conflict than is being a wife, and fertility data are provided for all women whether married or not.) Table 5.2 shows that among women aged 18–19 in 1982, 86.9% were still childless, that two-thirds of 20–24 year olds were childless, and that the

percentage dropped to about 40 by ages 25–29. If it is presumed that fathers are not primary caregivers when mothers are present in the household, then only a tiny fraction of males at these same ages have day-to-day responsibility for children or other dependents because only 3–4% maintain families without a wife (calculated from data in U.S. Department of Labor, 1980, Table 79).

Racial differences among women are also evident in Table 5.2. At all ages shown, black and Hispanic women are considerably less likely than whites to be childless (ignoring marital status), and both of these groups have borne twice as many children as have whites. The differences are especially striking for the high school and college ages, where birthrates are at least two to three times as high for blacks and Hispanics as for whites, and the highest birthrates are found for blacks. For example, whereas only about 10% of 18–19-year-old white women in 1982 had at least one child, more than 20% of Hispanic women and almost 30% of black women had at least one child. Although life-time expectancies for childbearing are similar across the three racial/ethnic groups (U.S. Bureau of the Census, 1984b, Table 2), it is apparent that Hispanic women tend to bear their first children at younger ages than do whites, and blacks bear children at still younger ages. These differences would seem to be extremely important, but they have been totally ignored in the special-groups literature.

Comparable fertility data are not available for recent years for Asian-Americans, Native-Americans, or the handicapped. Data for all racial/ethnic groups listed in Table 5.2 are available for 1970, however. (Percent still childless is available only for the subset of women who were *ever married* by that time.) Those data, shown in Table 5.2, suggest that fertility rates among Native-Americans are high and similar to those among blacks; in contrast, rates for the different Asian-American groups are usually lower than those for whites. Comparable data from 1960 show the same pattern (Bogue, 1969, Table 18–20).

Primary Economic Provider. This risk factor refers here to having at least one financial dependent for whom one is largely responsible. Good data are not available, but some indication is provided by assuming that all married males with a wife present and all women with children under age 18 but without husbands present are primary economic providers, and that the percentage of men who are single (never married) is an estimate of the number of men *without* financial responsibility for other people. Table 5.2 shows that only 5% of males aged 18–19 in 1982 had ever married. The percentages rise to 28 among men aged 20–24 and to 64 among men aged 25–29. (Data for females are shown for purposes of comparison, but they are not considered relevant in this context.) At each age, men are less likely to have married than women are to have had at least one child; this suggests that women tend to become primary caregivers at younger ages than men become economic providers. This sex difference in family responsibilities is even more pronounced when only married men with wives present are considered. Among women aged 16–44, 26% have children under 18

but no husband present (calculated from data in U.S. Bureau of the Census, 1983d, Table 23).

Racial/ethnic differences are also evident in Table 5.2. At all ages Hispanic men are somewhat more likely than whites to be married with a spouse present, and black men are considerably less likely to be primary economic providers according to this criterion. On the other hand, black women may be more likely than white women to be primary economic providers (Gump & Rivers, 1975).

Individuals with handicaps are assumed less likely than nonhandicapped individuals to be either primary caregivers or primary economic providers, because fewer disabled than nondisabled marry (Lando et al., 1982, Table 17). Some handicapped groups, particularly the mentally retarded and the severely physically disabled, may be more likely to be dependents themselves, but the author has no data to support that assumption.

The analysis of risk factors and relative risk rates seems useful in several ways. It indicates in more specific and more meaningful terms some of the conditions implied by general concepts such as racism and stereotyping. For example, cultural isolation, poverty, and low self-esteem are some of the marks that racist practices are assumed to leave on affected individuals. In addition, Table 5.1 shows that each special group shares some of the same risks as do some other special groups. For example, higher rates of risk for low intelligence, little education, and few financial resources are shared by a few of the racial/ethnic groups; cultural isolation or segregation is probably shared by all racial/ethnic groups; and isolation of some sort is shared by most or all types of special groups. Systematic differences among the special groups are also evident, but the differences are more a matter of degree of overlap in disadvantages than lack of overlap altogether. The handicapped and the two sexes tend to face different types of risks than do the different racial/ethnic groups.

Table 5.1 also illustrates how a common list of risk factors compiled from studies of different individual special groups can help focus attention on risk factors that are important for some social groups but that are often ignored. For example, being a primary caregiver is typically assumed to be a career development problem for women, but the data in Table 5.2 are a reminder that this problem is much more prevalent among women in some racial/ethnic groups than in others. Likewise, although males generally are perceived not to be subject to any special risk factors, this assumption may be incorrect. Males tend to bear the economic burdens of supporting a family, and this responsibility can impede optimal career development. This burden also varies by racial/ethnic group, although not in the same way as do the racial/ethnic differences in being a primary caregiver.

The list of risk factors generated from groups that have already been studied is useful for understanding the problems of groups that have not been studied. For example, the list provides a way of thinking about the career problems of reentry

women, displaced workers, homosexuals, the aged, delinquents, and many other special populations.

A more general implication of Table 5.1 is that members of *any* group, whether "special" or not, can be afflicted by any of the risk factors. Listing the problems of special groups in an analytical manner, but without reference to special group status per se, helps the counselor to be alert to problems a counselee may have that are *not* typical for that type of person. In other words, the entries in Table 5.1 indicate what risk factors are most likely for different types of people, but the list of risk factors in Table 5.1 provides a more comprehensive list of problems that should be kept in mind for all people.

Finally, by relying primarily on empirical evidence rather than on common beliefs, the entries in Tables 5.1 and 5.2 illustrate that many common assumptions about special groups are false. For example, it is well established in the psychological literature that special groups are much more similar in self-esteem and much less similar in cognitive abilities than is commonly asserted.

CAREER CHOICE PROBLEMS AND THEIR DIAGNOSIS

It is not sufficient for counseling purposes to know only what the risk factors are that can lead to career choice problems. Counselors typically deal with counselees who *already* have problems that require diagnosis and treatment. Counselors are not concerned solely with the treatment of career and other problems, nor are they unconcerned with the prevention of those problems. However, counselors function more like physicians than like public health officers in the sense that they have traditionally specialized more in responding to the problems individuals bring to them than in designing group-level interventions to prevent the sorts of problems they treat. A knowledge of group differences, such as those described in the previous section, is valuable to counselors, as are in-depth descriptions of particular special groups and the atypical circumstances they often face. However, it has not been clear how counselors should use such group-differences data when dealing with individuals who may or may not be typical of their groups.

This section outlines a framework for classifying and diagnosing career choice problems that links the information gained from group-level analyses to the individual-level approach of traditional career counseling. More specifically, it represents an attempt to organize much of what has been said in the literature about special groups in a way that illustrates the linkage of those data and hypotheses to common career counseling issues such as indecision, realism, and exploration in vocational choice and in a way that provides a better understanding of how interest inventories may be most useful in the overall career counseling process. This diagnostic framework focuses on the external and internal

barriers commonly associated with special group status and so only partially overlaps diagnostic or theoretical systems with a psychodynamic or developmental orientation (Knefelkamp & Slepitz, 1978).

Diagnosis refers to having a systematic way of recognizing and classifying problems, and it is often considered useful, if not essential, for determining effective treatment. Stated more simply, it helps to have a good idea what the problem is before trying to treat it. A variety of diagnostic schemes have been developed for classifying career development problems (Bordin, 1946; Campbell & Cellini, 1981; Crites, 1969, 1981; Pepinsky, 1948; Rounds & Tinsley, 1984; Williamson, 1939), but none has attracted much interest on the part of researchers or practitioners (Rounds & Tinsley, 1984)—a situation that suggests that none has been found particularly useful. It seems imperative, however, to continue the search for better ways by which counselors can identify and analyze the career choice problems of counselees (Osipow, 1982; Rounds & Tinsley, 1984), particularly for those counselees at special risk.

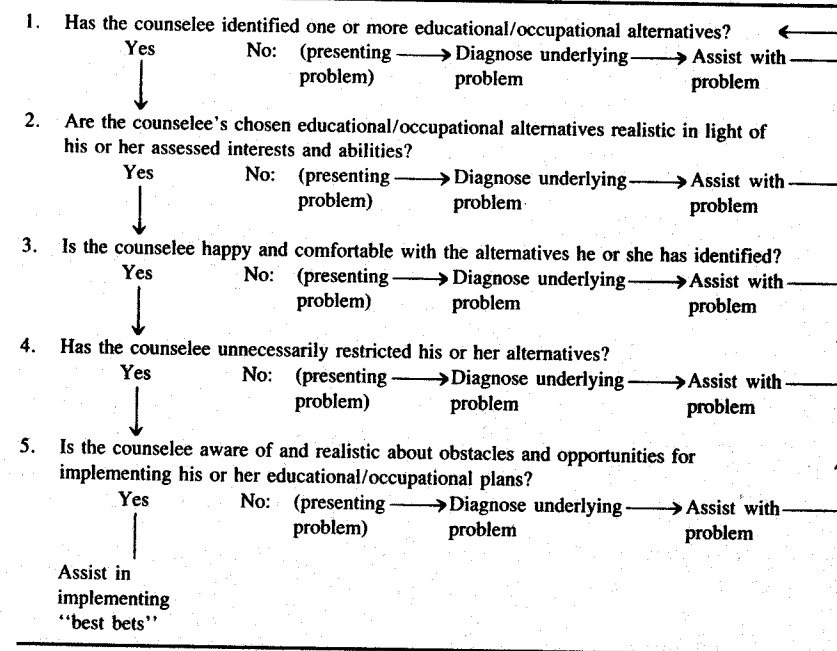
The problem framework described here uses four categories of problem: risk factor, underlying problem, symptom (presenting problem), and assessment criterion. Twelve risk factors have already been described. Each of the three other categories is briefly described before showing the relations among them and their implications for beneficial test usage.

Distinction Between Assessment Criteria, Presenting Problems, and Underlying Problems

Although it may be a laudable goal to help people solve most or all of their problems, the limited resources of both counselors and clients make it more realistic and efficient to focus on those problems that significantly impede successful development. This makes it especially useful to have in mind what the features of *successful* development are when trying to assess and rank the major problems counselees have. These criteria of successful career choice development are referred to as *assessment criteria*. Five major assessment criteria are proposed in Table 5.3: (a) has the counselee identified one or more educational/occupational alternatives? (b) are the counselee's chosen educational/occupational alternatives realistic in light of his or her interests and abilities? (c) is the counselee happy and comfortable with the alternatives he or she has identified? (d) has the counselee unnecessarily restricted his or her alternatives? and (e) is the counselee aware of and realistic about obstacles and opportunities for implementing his or her educational/occupational plans?

As indicated in Table 5.3, the criteria are applied sequentially, for reasons of both logic and efficiency, although in practice criteria 2–4 can be considered simultaneously to some extent. These criteria are consistent with other diagnostic schemes that emphasize indecision and unrealism about suitability of choice (e.g., Crites, 1981, and the other "descriptive" classifications discussed by

TABLE 5.3
Outline of a System for Assessing Career Choice Problems



Rounds & Tinsley, 1984), but they include two criteria that are not considered in many schemes—counselee comfort with the choice(s) and counselee realism about the accessibility (as opposed to the suitability) of the choice(s). Providing information about job openings and training requirements has been a major activity in guidance and career counseling, of course, but diagnostic schemes usually stop short of assessing counselees' realism about their prospects and plans for actually implementing their choices. This last criterion may be an especially important one when aiding members of special groups because they are generally presumed to have to cope with diverse barriers. The five assessment criteria listed in Table 5.3 are not the only ones that might be proposed, and there are difficulties in determining whether counselees have met them (Hewer, 1966), but they seem consistent with two prominent goals in career counseling—ensuring opportunity while at the same time encouraging wise choice. The five criteria should be considered guides for promoting successful development, not absolute nor necessarily even consistent goals. Circumstances may be such that individuals may not be able to pursue occupations that are optimal in terms of interests and abilities or they may choose, for good reasons, not to pursue such occupations.

If the counselor determines that the counselee meets an assessment criterion, then the next assessment criterion is considered. However, if the counselee fails to meet the criterion, then the problems underlying that failure are sought before going on to the next criterion. Certain *presenting problems* (e.g., anxiety, academic failure) may be typically associated with different types of developmental failure, but they are of limited value in diagnosing and treating the counselee's career choice problems. They are merely symptoms in this context, and so are not discussed further.

Four classes of *underlying problems* are described next: (a) lack of self-knowledge; (b) having life goals and values that conflict with one another (internal conflict); (c) having goals and values that conflict with those of important people in one's life (external conflict); and (d) perceived barriers and opportunities. These four general underlying problems can be conceptualized as ranging from "inner" to "outer" in terms of whether the problem relates to the person's knowledge of and reactions to self, to family and friends, or to institutions of education and employment. The specific problems that underlie failures to meet the five different assessment criteria differ from one criterion to another, as detailed later, but these same general types of problems may be responsible for failure to meet any of the developmental criteria. These four categories of underlying problem appear to provide a useful way of organizing the many specific problems that have been identified by research, theory, and clinical experience, but they also serve as a stimulus for identifying other problems that may be seldom, if ever, discussed in the counseling literature. The underlying problems discussed here are similar to the problems included in diagnostic schemes designed to illuminate the etiology of vocational problems (e.g., Bordin, 1946; see also the Rounds & Tinsley, 1984, review of "psychodynamic" classifications of vocational problems).

A Problem Analysis Framework

Table 5.4 illustrates a framework for analyzing career choice problems. Examples of specific problems that can underlie failure to meet each of the assessment criteria are shown for each of those five criteria. These examples are illustrative, not exhaustive. The individuals presumed to be at most risk of having the specific underlying problems are listed opposite those problems. The individuals at most risk are those people who are characterized by the risk factors shown in Table 5.1. The last column of Table 5.4 thereby provides a way to trace the consequences of special group status to failures in career choice. Although the table is based on a reading of the literature, it should be considered a synthesis more of hypotheses than of findings in the field.

The following discussion illustrates the types of details that are provided in Table 5.4 for each of the five assessment criteria.

TABLE 5.4
A Problem Analysis Framework for Career Choice Problems: Five Assessment Criteria and Their Related Presenting Problems, Possible Underlying Problems, and Individuals Most at Risk

Assessment criterion	Presenting problems(s)	Possible underlying problems	Individuals most at risk (risk factor)
1. Has the counselee identified one or more educational/occupational alternatives? Yes (go to next criterion) No: Undecided		<p><i>Lack of self-knowledge</i></p> <ul style="list-style-type: none"> uncertain identity --does not know own interests, personality, strengths and weaknesses --interests/abilities not well developed <p><i>Internal conflict</i></p> <ul style="list-style-type: none"> cannot reconcile own incompatible life goals --interesting work is too low in pay or prestige --interesting work is wrong sex/type --job preferences conflict with family life <p><i>External conflict</i></p> <ul style="list-style-type: none"> goals conflict with family's wishes friends have different goals <p><i>Perceived barriers and opportunities</i></p> <ul style="list-style-type: none"> perceived barriers to preferred work --thinks preferred job(s) not available --training is expensive --lacks necessary ability 	<ul style="list-style-type: none"> functional limitation low self-esteem culturally isolated/segregated socially isolated/segregated a potential (social class) nontraditional primary economic provider a potential (gender) nontraditional primary caregiver primary caregiver primary economic provider a potential nontraditional (any type) poor family poor academic background

(Continued)

TABLE 5.4
(Continued)

Assessment criterion	Possible underlying problems	Individuals most at risk (risk factor)
2. Are the counselee's chosen educational/occupational alternatives realistic in light of his or her interests and abilities (i.e., are interests and abilities sufficient)? Yes (go to next criterion) No: may be no presenting problem and may be happy with choice lack of interest or motivation academic difficulties depression anxiety	<p>--expects bias in hiring</p> <p><i>Lack of self-knowledge</i> --has overestimated own ability or special talents --mistaken about own interests</p> <p><i>Internal conflict</i> own life goals are incompatible --has sacrificed interests for pay or prestige --has sacrificed interests for sextype or family responsibilities --ignores lack of ability in order to pursue pay or prestige</p> <p><i>External conflict</i> following course expected by parents,</p>	<p>low intelligence low intelligence compared to family/peers functional limitation a potential nontraditional (any type) culturally isolated/segregated socially isolated/segregated functional limitation</p> <p>low intelligence socially isolated/segregated a potential (gender) nontraditional</p> <p>a potential (social class) nontraditional primary economic provider a potential (gender) nontraditional primary caregiver low intelligence compared to family/peers</p>

3. Is the counselee happy and comfortable with the alternatives he or she has identified? Yes (go to next criterion) No: lack of interest or motivation depression anger/resentment guilt needs reassurance	<p>friends, spouse --level too difficult --field of work not interesting</p> <p><i>Perceived barriers and opportunities</i> job perceived as easy to get --satisfactory job(s) available --training not difficult --training inexpensive --no bias or positive bias (affirmative action) expected underestimates or unaware of importance of abilities</p> <p><i>Lack of self-knowledge</i> --has underestimated own ability</p> <p><i>Internal conflict</i> has not reconciled own incompatible life goals --has restricted occupational ambitions to fulfill other (e.g., family) roles --is jeopardizing other roles to pursue occupational ambitions</p>	<p>low intelligence compared to family/peers a potential nontraditional (any type)</p> <p>primary economic provider poor academic background poor family a potential (gender or racial/ethnic) nontraditional low intelligence culturally isolated/segregated socially isolated/segregated</p> <p>high intelligence compared to family/friends low self-esteem</p> <p>a potential nontraditional (any type) primary caregiver primary economic provider</p>
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(Continued)

TABLE 5.4
(Continued)

Assessment criterion	Presenting problem(s)	Possible underlying problems	Individuals most at risk (risk factor)
		<i>External conflict</i> has accommodated to family and peer expectations --has restricted his or her ambitions --has restricted locale of training or employment	a potential nontraditional (any type) primary economic provider primary caregiver
		<i>Perceived barriers and opportunities</i> preferred job perceived as difficult to get --jobs(s) not available --training for more preferred job is too expensive or lengthy --lacks ability for more preferred job --expects bias in hiring	poor family primary economic provider poor academic background low intelligence compared to family/peers functional limitation functional limitation a potential (gender or racial/ethnic) nontraditional culturally isolated/segreated socially isolated/segreated
4. Has the counselee unnecessarily restricted his or her alternatives? Yes (go to next criterion)	No: may be no presenting problem and may be happy with choice wants training information wants job information wants job search training	<i>Lack of self-knowledge</i> --has underestimated abilities --has never considered possibility of self in other roles (e.g., lacks role models)	low self-esteem functional limitation socially isolated/segreated culturally isolated/segreated poor family primary caregiver
		<i>Internal conflict</i> alternatives consistent with preferred identity --using alternative to help consolidate gender identity --avoiding discomfort of being different or "marginal" --avoiding estrangement from family and friends --avoiding unnecessary effort <i>External conflict</i> counselee's goals satisfy family and peer expectations --family expectations low --family and friends reinforce "stereotyped" choice --following family tradition <i>Perceived barriers and opportunities</i> lacks information about alternatives --not exposed to information about alternatives --has not paid attention to past information about alternatives See also Perceived Barriers for criterion 3	socially isolated/segreated culturally isolated/segreated functional limitation culturally isolated/segreated a potential nontraditional (any type) high intelligence compared to family/peers high intelligence compared to family/peers functional limitation high intelligence compared to family/peers functional limitation a potential nontraditional (any type) culturally isolated/segreated socially isolated/segreated
5. Is the counselee aware of and realistic about obstacles and opportunities for implementing his or her educational/occupational plans? Yes	No: wants information about training wants job information	<i>Lack of self-knowledge</i> --does not appreciate the	

TABLE 5.4
(Continued)

Assessment criterion	Presenting problem(s)	Possible underlying problems	Individuals most at risk (risk factor)
Assist counselee in gathering information and in implementing "best bets."	wants job search training discouraged about plans resisting or denying need to adjust goals	<p>effort or motivation that will have to expend</p> <p><i>Internal conflict</i> --not willing to consider need to adjust goals</p> <p><i>External conflict</i> --would be embarrassed to change plans</p> <p><i>Perceived barriers and opportunities</i> --not exposed to enough information about job requirements --has not taken full advantage of information and opportunities in own social environment (e.g., friends and relatives) --has not made much effort to gather information</p>	<p>socially isolated/segregated culturally isolated/segregated</p> <p>socially isolated/segregated</p>

Assessment Criterion 1: Counselee is Able to Voice a Choice. This criterion refers specifically to being able to name one or a small number of occupations as viable alternatives. It does not refer to being undecided about which of those particular options is best. That final narrowing of one's choices to a single title need not, and probably should not, be done until after people have investigated the accessibility of various alternatives, how to make themselves more competitive, and developed back-up alternatives. In short, this criterion is somewhat different from the concept of being "undecided."

Not knowing one's own interests and abilities or not even having any well-developed interests and abilities both represent a lack of knowledge about oneself. A lack of knowledge about one's own interests and aptitudes obviously makes it difficult to identify occupations that might be consistent with those interests and abilities, so it can result in the inability to voice a choice at all. Although lack of self-knowledge probably occurs for a variety of reasons and in all populations, certain risk factors identified earlier show how special group status can be implicated in this type of indecision. Although the deaf, minorities, and women have all been thought, at least by some authors, to be handicapped more often than other groups by lack of self-knowledge, it is probably not these statuses per se that suppress the development of self-knowledge. That suppression can more likely be traced to the social and cultural isolation that often accompanies those statuses, because isolation or segregation can restrict a person's experiences and opportunities for developing and testing one's interests and competencies.

An inability to reconcile one's own incompatible life goals can also paralyze career decision making. For example, a primary economic provider may be unable to identify an occupation that will simultaneously meet his or her economic goals (e.g., economic security) and vocational interests (e.g., art). Two other examples are the mechanically inclined woman (a potential gender non-traditional) who may be unwilling to consider a masculine job, and the mother or single parent (i.e., a primary caregiver) who is unable to identify occupations that will allow that person to fulfill interests and family responsibilities at the same time.

The foregoing conflicts in goals are internal because they involve career and life goals and values held by counselees themselves. But goal conflict can also be more external. To illustrate, some people might like to follow their nontraditional interests, but are hesitant to do so because family and friends encourage them to do otherwise (e.g., a woman interested in firefighting or a man interested in nursing).

Finally, some people may be unable to voice a choice because they see their preferred occupation(s) as inaccessible to them. For example, a person from a poor family may perceive the necessary training for a preferred occupation as too expensive; people with nontraditional interests or physical limitations may expect bias against people like themselves; or persons handicapped by low intel-

ligence, poor academic background, or a functional limitation may assume that they lack the necessary ability for getting and keeping the preferred job. Whether accurate or not, such perceptions of inaccessibility can lead to the inability to state and pursue an occupational preference.

In short, a wide variety of underlying problems may lead to the inability to state an occupational choice. The risk factors to which these problems can be traced often differ, but it should be noted that all but one of the risk factors is represented for this assessment criterion and that some members of all special groups, including white males, can thereby be expected to be at risk in some way of being unable to voice a career choice.

Assessment Criterion 2: Interests and Abilities Are Adequate for Occupation(s) Chosen. The same four general underlying problems can lead to the failure to meet this second criterion, but their specific manifestations and the risk factors with which they are associated are often different. Overestimating one's abilities and being mistaken about one's interests both represent a lack of knowledge about oneself that can lead to making choices that are unrealistically high or out of touch with the kinds of activities one really enjoys most. Overestimating one's abilities may be associated, for example, with low intelligence, and being mistaken about one's interests may stem from being a potential nontraditional (e.g., a woman automatically assuming that she shares typically feminine interests).

It was noted earlier that internal and external conflict of goals can lead to indecision, but they can also lead to unsuitable choices. For example, both primary economic providers and primary caregivers may sacrifice, sometimes unnecessarily, their interests for their family responsibilities, the former by opting for higher pay regardless of interests, and the latter opting for a job with flexible scheduling and easy reentry regardless of interests or pay. Other people—particularly those who are significantly less intelligent than family and friends, but who wish to meet the same standards of success—may ignore their low abilities or work especially hard in order to pursue jobs beyond some particular level of pay or prestige. This type of person may even realize that the chosen occupation is too difficult but may still pursue it because of family pressure. Many potential nontraditionals may also pursue occupations for which they are unsuited because family and friends expect them to do what is typical for their sex, race, ethnic group, social class, or particular family tradition.

Many individuals may pursue jobs of little interest to them simply because those jobs are perceived as readily available. For example, they may perceive the training as easy or inexpensive, that many such jobs are available, or they may expect that the employers for those jobs will be especially favorable to hiring someone like themselves (i.e., of their race or sex). People who feel at some disadvantage in the labor market (e.g., have a poor academic background or a functional limitation) or who feel that they need to find employment in a hurry

(e.g., a primary economic provider) may be drawn by the accessibility of a job rather than by the opportunity to use their interests and abilities. To take a more specific example, Hershenson (1974) has noted that there are special opportunities for people with certain types of handicap (e.g., newstands for the blind) and that certain handicaps actually represent a competitive advantage in some jobs (e.g., deafness in noisily noisy jobs). These and other such opportunities for the handicapped are desirable, but they can be a two-edged sword if they divert individuals from searching for jobs more suitable to their interests. Yet other individuals may pursue jobs that are quite difficult in view of their abilities because they are unaware of or underestimate the ability requirements of those jobs. People at particular risk may be those who tend to have little information about occupations and would include people of low intelligence and people who have been culturally or socially isolated.

Assessment Criterion 3: Counselee Is Satisfied With Choice. Not only should a choice seem appropriate to the counselor, but it also should be congenial to the counselee. It may not be possible to find an occupational alternative that is both realistic and satisfying to the counselee, but a lack of enthusiasm may indicate some underlying problem that is remediable and that in turn may allow the identification of a more satisfying choice.

People may have chosen unchallenging and unsatisfying occupations because they have underestimated their own abilities. People at particular risk would seem to include those with low self-esteem or the more talented people in a social setting who assume they are no more able than their less talented peers to pursue jobs requiring high-level abilities.

People may also be dissatisfied with their choices, although their abilities and interests are adequate for those occupations, because they have not reconciled incompatible life goals. Potential nontraditionals and primary caregivers may have knowingly restricted their occupational ambitions in order to fulfill other (e.g., family) roles, so that they are left unenthusiastic about their career choices. But it is also the case that some people will be uncomfortable precisely because they *do* decide to pursue their career ambitions and thereby jeopardize valued noncareer roles. Accommodating to family and peer expectations can also result in dissatisfying occupational choices. For example, both primary economic providers and primary caregivers may restrict the types of training or employment they will consider in order to minimize financial or other costs to their families.

Perceived barriers to obtaining one's most preferred occupation may also lead people to voice choices about which they are not enthusiastic. The desired jobs simply may not exist in that locality, or training may be too expensive (e.g., for poorer youngsters) or too lengthy (e.g., for primary economic providers or primary caregivers). The person may lack the qualifications required for the more preferred job because of poor education, low intelligence, or physical limitations; potential gender or racial/ethnic nontraditionals and the physically

impaired, among others, may also expect bias in hiring that can destroy their chances of employment in the preferred job. Once again, those perceptions may or may not be accurate, but they can still affect decision making.

Assessment Criterion 4: Choices Are Not Unnecessarily Restricted. A chosen occupation may be entirely within one's range of interests and capabilities, but not represent as full a utilization of one's talents and interests as might be possible. The concern here is not with ensuring that counselees seek the ideal choice for them, but that they seek a fulfilling one. This issue of unnecessary restriction of choice is probably the developmental criterion that has drawn the most concern in discussions of special groups. It is not necessarily the case, however, that counselees themselves, including white males, are dissatisfied with overly restricted occupational choices, even with choices that hold little promise of actually satisfying them later on.

Lack of self-knowledge can lead to unnecessary restriction of choice. Individuals who have been culturally or socially isolated may not have well developed interests, and others (e.g., people with low self-esteem or physical impairments) may have underestimated their abilities. Many people probably restrict their choices simply because they have never considered many alternatives; the restriction results not so much from rejecting alternatives as it does from never even having entertained them in the first place. Role models may be important partly for this reason. Even though people may have some knowledge about potential occupations, they may need a stimulus to think of the occupations in question as alternatives for someone like themselves. Social or cultural isolation and being a primary caregiver may lead to restriction in choice partly for this reason.

A number of internal conflicts can also lead to unnecessary restriction of choice. Some males and females may express sex-stereotyped choices partly in an effort to consolidate their gender identities. Potential nontraditionals may choose occupations typical of people like themselves in order to avoid the discomfort of being different or estranging themselves from their family and friends. Some individuals who are considerably more intelligent than most people in their social surroundings simply may be unwilling to seek more challenging jobs when they can easily meet the less challenging standards of success in their own social circles.

The expectations of other people who are important in one's life (e.g., parents) can also lead to restriction of choice. For example, potential nontraditionals may occasionally mention nontraditional options for which they receive no encouragement, and they may receive much unsolicited encouragement for pursuits typical for their sex, race, or social class.

Finally, socially or culturally isolated people may be especially likely to be unaware of or to have little information about all the alternatives that are actually realistic for them, so they may be unable—not just disinclined—to even consid-

er those options. Other people may be uninformed because they have never paid attention to available information about the alternatives they have assumed are inappropriate for them. As discussed elsewhere (Gottfredson, 1981), it is costly in time and effort to actively seek out information about jobs, meaning that people know most about the jobs to which they have been exposed. But for the same reason, people cannot be expected to even pay attention to, and mentally process, all occupational information to which they are exposed, and instead they can be expected to attend to and remember only that which is most salient to them at the time.

Assessment Criterion 5: Counselee Is Realistic About Accessibility of Chosen Occupation(s). An occupation may be optimal in terms of one's interests and abilities and yet be unrealistic because it simply is unavailable. It may also be a poor bet because of the obstacles (e.g., intense competition) to actually obtaining that kind of work. This does not mean that the choice necessarily should be discouraged, but it does mean that counselees should be aware of what they are up against to be better prepared to pursue their goals more effectively. In addition, disillusionment and wasted time, money, and effort often result from ignorance of barriers and opportunities.

The fifth assessment criterion is now a neglected issue in the literature on career development as well as in the literature on special groups, so there are few hypotheses to list in Table 5.4. More attention to this issue would seem to be desirable in the future.

Perhaps the biggest underlying problem for special groups with regard to meeting this criterion of development is lack of information about, or misperceptions of, barriers and opportunities. Socially or culturally isolated people may now be aware of more occupational alternatives than they were routinely exposed to in the past, but they may not have developed a comparable awareness of the effort, abilities, interests, and qualifications that are required in those occupations. Having focused on the importance of race and sex in explaining race and sex differences in employment patterns, some women and minorities may overestimate the opportunities that have recently opened up to them, and they may underestimate the attributes that are important—even for white males—for entering and succeeding in different occupations. Being a white male may have been necessary in some jobs in the past, but it has rarely been sufficient. It is probably realistic for nontraditionals to still expect to be treated somewhat differently on most jobs, but it is important for them to realize that they can expect problems, barriers, and opportunities that have little or nothing to do with their special group status. Some problems are just part of "the natural struggle of getting to the top" (Rogan, 1984, p. 59).

Other counselees may not be aware of or may discount barriers that are realistic for them to expect. For example, persons with physical handicaps must be realistic about the prejudices and inconveniences typical for their handicaps in

testing, interviewing, and mobility or other incidental activities in different educational and work environments. Careful planning and strategies for overcoming those prejudices and complications are required for optimal career development. Similar statements could be made with regard to women and their family goals and responsibilities.

SOME PRINCIPLES OF BENEFICIAL TEST USAGE

The testing controversy, the special-groups literature, and the analysis of career choice problems just presented all help to put vocational interest testing in a broader perspective and to suggest how those inventories might be used in a beneficial manner. Many of the principles presented next are restatements or elaborations of principles already reflected implicitly or explicitly in the counseling literature. The following list is not complete; it consists largely of principles either suggested by or concerned with the problems of special groups, but at the same time, many of these principles apply to any person or group.

Principal 1

Inventories should be viewed as treatments. The testing controversy and the concern about the welfare of special groups together have transformed perceptions of the purposes of interest measurement. Interest measurement is less often conceived of now simply as measurement or information gathering, and the provision of test results is no longer seen only as providing information. Interest inventories are now seen less as diagnostic tools for the counselor and more as treatments that can either support or counteract the status quo. For example, in the context of discussing how inventories might stimulate career exploration, Cole and Hanson (1975) argued that "interest inventories should no longer be merely reported or interpreted. They should change behavior" (p. 12). Just 3 years later, Zytowski (1978) stated that "interest inventories have become an instrument of social change" (p. 129). This transformation of perceptions is also evidenced by the fact that interest tests have traditionally been evaluated for their accuracy but only more recently for their effects on test takers (Holland, in press). Similarly, in their discussion of intervention studies, Rounds and Tinsley (1984) noted that "the active ingredients of several vocational intervention procedures are assumed to be the assessment process itself" (p. 130). If interest inventory results are reported to test takers, it seems best to conceptualize inventories as treatments—perhaps not necessarily effective or beneficial ones, but treatments nonetheless (Gottfredson & Holland, 1978; Holland, in press).

Principal 2

Interest inventories and their interpretive materials constitute packages of interventions, the specific packages differing somewhat from one inventory to an-

other. Interest inventories tend to be discussed as discrete and unitary entities but, in reality, they have evolved into more complex conglomerations of treatments or "programmed learning experiences" (Holland, 1979a, p. 2). The heart of an inventory is the set of items that constitute the interest and related scales, but an inventory generally includes some auxiliary materials that always accompany the inventory (e.g., the *Occupations Finder* of the SDS) and other interpretive materials that are optional (e.g., the booklet *Understanding Yourself and Your Career* for the SDS and the occupational codes in the appendices to the *User's Guide to the SVIB-SCII*, Hansen, 1984b). Specific components of an inventory, other than the test scales, often include: instructions for how to interpret the scores, suggestions for what other information about self and jobs the test taker should consider when making a vocational choice, classificatory schemes for how to organize and think about similarities and differences among occupations, instructions designed to counter common misperceptions and stereotypes about employment, information about what contributes to job satisfaction and performance, lists of occupations that the test taker previously may have been unaware of or uninformed about, information about what people in different jobs are like, and information about how similar the test taker is to people in some jobs versus others. One trend in interest inventory development and revision has been the progressive addition and elaboration of such components in the accompanying manual and other interpretive materials. This trend reflects an effort by test developers and publishers to be responsive to concerns about test fairness; many revisions have involved interpretive material rather than test items or scoring procedures. But it also appears to represent a trend toward making interest inventories more comprehensive simulations of the counseling experience and to incorporate a wider range of counseling treatments into the inventory package.

It may seem obvious that interest inventories can be decomposed into different treatment components, as indeed some researchers have tried to do in evaluation studies (Holland et al., 1981), but this perspective also helps to clarify the controversy about interest tests in the special groups literature and how inventories can be utilized. In particular, this perspective shows not only how the same interest inventory can serve many different purposes or treatment goals (Gottfredson & Holland, 1978), but also how an inventory can simultaneously serve what have often been perceived (Zytowski & Borgen, 1983) as inconsistent goals—realistic assessment and exploration. For example, it has frequently been debated whether inventories should reflect past development, which represents the status quo, or whether they should promote exploration and change. A specific manifestation of this debate has been the controversy over whether an inventory should produce the same distributions of scores for women and for men (which presumably promotes more exploration for women) or whether it should be allowed to show sex differences in interests (differences which are generally attributed to previous socialization). Although it may be true that an

inventory cannot be scored to both assess past development as well as to stimulate changes in future development, different *components* of an inventory can be directed toward the two different goals. In fact, a good inventory probably does both—providing a good assessment of the person's current interests and competencies (via the inventory scales and their scoring and interpretation) and promoting exploration, partly by stimulating (via educational interpretive materials) the test taker to think about the origins of those interests and how they might investigate other undeveloped interests and partly by providing an efficient way of examining more alternatives (via an occupational classification) than the test taker would have otherwise.

Inventories can be seen as somewhat *flexible* arrangements of treatments, some components perhaps being more effective than others and some which the counselor may wish to replace or augment with more potent treatments as needs and goals dictate. For example, interest inventories help to focus exploration and perhaps make it more effective by helping test takers to better understand their current orientations. But they are neither necessary nor probably adequate for effective exploration of nontraditional options, which may be better achieved by embedding an interest inventory within a group exercise or in a broader system of treatment such as the Vocational Exploration and Insight Kit (VEIK; Holland, 1979b).

In short, interest inventories may serve many purposes, but they may not serve all of them equally well nor should they necessarily be expected to do so as long as it is clear what they do well and what they do not. The extensive construct validity for the major inventories (Campbell, 1971; Holland, 1985) suggests that they serve the purposes of assessment well and do so fairly. How well they accomplish other goals is not clear, because so little research has yet been done to evaluate their effects, and because few past evaluations have been analytical enough to determine which components of the inventories in question are responsible for any effects the inventory has (Holland et al., 1981).

The general point is that inventories can be expanded, elaborated, and embedded in larger systems of treatment to fulfill many different purposes, but there is no reason to expect the inventory items and scoring methods themselves to always be harnessed to those purposes. For example, one concern in the past has been that inventories do not measure a person's potential or undeveloped capacities and interests, a failure which, it is claimed, may make them unfair in the sense that they merely reinforce the ways in which women's interests have been artificially channeled by society. One response to this concern was the liberalization of test-taking instructions on some inventories which, as was discussed earlier, turned out not to have an appreciable effect on sex differences in test outcomes. Having few interests or a flat profile may reflect a lack of development or a diffuse identity, but no one has advocated changing interest inventory items or scoring procedures to reveal the latent interests or identities of people with such profiles. It is recognized, as with inconsistent profiles, that such people need to expose themselves to more or new experiences so that their

interests can more fully develop (Campbell & Hansen, 1981, p. 95; Kuder & Diamond, 1979, p. 12; Weinrach, 1984). Interpretive materials can advocate such experiences and other interventions such as Job Experience Kits (Krumboltz, 1970) can provide them, but interest inventories as currently structured assess only developed interests. Furthermore, they appear to be the best available means of meeting this very useful goal.

Principle 3

Interest inventories are most useful when embedded within a broader career counseling process that recognizes the constraints on career choice. This principle seems always to have been a basic precept in the use of interest inventories. What has changed over time are the views of what the major constraints on career choice are and thus what the broader vocational counseling process should consist of. The developmental literature (Super, 1984) has broadened the early guidance models, which focused on matching interests and abilities to occupational requirements, to emphasize the integration of diverse career and life goals throughout the whole life. The special groups literature has brought about a different kind of change. It has shifted attention toward the social and economic barriers that can thwart the implementation of interests and abilities in work and that can perhaps even channel those interests and abilities in particular directions. Both approaches would deny that interests and abilities are sufficient information for adequate career counseling—the first primarily because other life goals are important and the latter because social and economic barriers may prevent their implementation. Both are also consistent with the view that vocational choice is a compromise process and that an understanding of other major constraints, of both an internal and an external nature, is required for optimizing career development (Gottfredson, 1981). The special-groups literature has argued that current vocational theories and counseling methods may be inappropriate for members of special groups because they were developed from samples of white middle-class males. The fact that those theories and methods may be less useful than desired may be more the result of idealized views of career development even for white middle-class males. The special-groups literature makes obvious the constraints on free choice that certain sorts of people face, but probably not even the most advantaged individuals have unconstrained choice of occupation.

The fact that vocational interests may not play as important a role in career choice as was once assumed and that they may be more readily sacrificed than other aspects of one's social self (e.g., status, gender role) when compromises are required (Gottfredson, 1981) does not mean that inventories should no longer have a prominent place in the career counseling process. It means that interest inventories probably have not been fully utilized when they are used and that some other types of information have been too little used by comparison. This chapter has tried to show how counselors might more systematically assess the constraints and conflicts that may be impeding the career development of their

individual counselees. Interest inventories can be utilized not only in assessing interests but also in diagnosing other constraints on career choice and in identifying alternative courses of action when compromise is required. Some counselors consider the interpretation of interest inventories to be a mechanical, routine, and uninteresting task. In contrast, if inventories are interpreted not in isolation but in relation to other preferences and social pressures, they can be a key to understanding more general complaints and anxieties and to predicting the compromises counselees will probably have to consider. Such use of interest assessments requires clinical judgment because there are no guidelines for such activities and because situations vary considerably from one counselee to another.

Principal 4

Treatment should be tied to goals. Test usage in the counseling setting, like any treatment, should be guided by specific goals. This chapter specified five criteria or goals for career choice. By structuring the search for career choice problems according to whether or not counselees meet these criteria, diagnosis and treatment may become more efficient and effective, particularly in view of the time constraints imposed on the counseling process. Other goals for career choice have been advocated in the literature—for example, proficiency at the general process of decision making (Mitchell & Krumboltz, 1984; Tiedeman & Miller-Tiedeman, 1984; see Osipow, 1982, for a list of possible outcome criteria). However, the goals proposed here seem consistent with the emphasis of many diagnostic schemes on indecision and unrealism. They also are consistent with the newer concern that the career alternatives of special groups not be restricted because of special group status. Structuring the analysis of career choice problems according to the five criteria ensures that both counselors and counselees confront and deal with career choices that may be less than optimal.

The special-groups literature has been particularly concerned that the aims, and not just the methods, of career guidance may not have been beneficial to members of special groups, a criticism that has sometimes been voiced about psychotherapy in general. The concern about how to avoid structuring counseling according to the cultural values of the counselor may have led some practitioners to avoid taking a stand on what healthy development is. But perhaps a more useful professional response is to make the goals of counseling and of interest inventories more explicit. Such a response would be consistent with the trend of making interest inventories more accessible and understandable to test takers (Holland, in press).

Principal 5

Goals for the counseling process, including interest inventories, should relate to the adjustment and welfare of the individual rather than to the social groups of

which the individual may be a member. Improving the life circumstances and career development of special groups is a desirable social goal, and the profession has taken responsibility for establishing programs targeted to various special groups. However, the goal of any counselee-counselor encounter is to aid the particular counselee in that encounter. The goal should not be to promote any particular group outcome such as to reduce sex or race differences in career outcomes, although such group outcomes may generally be desired by the community at large, because that goal may or may not accord with the counselee's own particular needs and wishes or special characteristics. It is an unspoken covenant of the counseling relationship that the needs of the counselee take precedence over those of the counselor, of the institutions with which either the counselor or counselee is associated, or of any particular social group. Trust on the part of the counselee is essential to a good counseling relationship, and it has frequently been noted that members of special groups often are distrustful of counseling (Sue, 1981). Using counselees as vehicles to promote social goals, which are distinct from the welfare of the individual counselee, may only further erode trust in the profession, no matter how well intentioned the profession may be (e.g., see Brooks, 1978, on the need for "non-ideological" services for reentry women). Consequently, this chapter has focused on goals for personal development (e.g., suitable, satisfying, unrestricted, and accessible careers) and on the problems from which individual people may suffer and that may interfere with optimal personal development (e.g., lack of knowledge about self and jobs, internal and external conflicts), although special groups were of particular concern.

Efforts to promote social change are a legitimate activity, but probably not within the counseling setting unless they coincide with the needs and desires of the counselee. This statement is equally applicable to any counseling tool such as interest inventories. Counseling tools should not be designed to promote social change, except via improving the adjustment and welfare of the *individuals* subjected to them, unless other goals are clearly stated to both counselors and counselee. This interpretation questions the advisability of frequent recommendations to norm interest inventories so that they "produce approximately equal distributions of scores for men and women throughout the full range of possible general scale and occupational scale scores" (Cole & Hanson, 1975, p. 13). Although the goal of *widening* the options that individuals consider is now widely accepted, there is no clear relation between this individual-level goal and the group-level goal of producing *equal* distributions of interests for men and women. There is no evidence to suggest that a society that provides opportunities for fully developing and utilizing everyone's potentialities will produce distributions of occupational choices or employment that are identical, or even similar, across all social groups.

Principal 6

Career counseling strategies, including the use of interest inventories, should be targeted to counselees' career development problems rather than to counselees' special group statuses unless there is a compelling reason to do otherwise. The members of some special groups appear to have an elevated risk of certain problems, but group status is too weak a predictor of career choice problems to be used to assign treatments to individuals. Treating clients according to their special group status is tantamount to stereotyping them rather than to treating them as individuals. The knowledge that some special groups are more likely to suffer from certain problems is useful knowledge, because it suggests what services will be most in demand in different client populations. But even in counseling programs that are targeted to particular special groups, it is useful to remember that those special programs themselves are probably more effective in reducing career development problems to the extent that they actually focus on those career development problems rather than being more diffuse examinations of special group status. Special group status is also an important piece of information in the process of diagnosing a counselee's problems, but treatment should follow from the problems that are actually identified. At this time, it seems most beneficial for counselors to assume that *any type of counselee can have any type of career choice problem*, and that no type of person is certain to have any particular problem.

Principal 7

Interest inventory scores are useful in diagnosing whether career choice is proceeding satisfactorily and why it may not be if it is not. Specifically, inventoried interests are integral to assessing whether the counselee has been successful in meeting two criteria discussed earlier (i.e., whether choices are suitable and fulfilling in terms of interests and abilities). This use of inventories is probably a common one. However, inventoried interests can also be used in diagnosing the particular problems underlying the failure to meet any of the first four of the five criteria for successful career choice when those interests are used in conjunction with other data about the individual. For example, lack of self-knowledge, which can lead to indecision as well as to unrealistic or unfulfilling choices, may be revealed by comparing a counselee's interest scores to his or her self assessment. And interest inventory manuals note that a flat profile may indicate undeveloped interests. It has been found that inventoried interests are more useful in predicting later occupation chosen or entered if they are consistent with expressed choices (Holland, 1979a, p. 15). But it is also useful to look at *disagreements* between inventoried and expressed interests as a useful strategy for diagnosing problems that appear to disrupt optimal development (Hansen, 1984a; Holland, 1979a, p. 5). In particular, interest inventory results can be used

to probe for internal or external conflicts, problems that can also lead to indecision or to unrealistic or unfulfilling choices. For example, if expressed choices (i.e., occupational aspirations) differ from assessed interests, additional questioning may reveal that the individual has compromised or ignored vocational interests in favor of an alternative that is of higher pay or status, or that is more consistent with family responsibilities or the gender identity the counselee wishes to project. It may also reveal conflicts between the wishes of the counselee and the expectations of the counselee's family or friends. The potential value of interest inventories in diagnosing the problems underlying failures in development seems not to be fully appreciated, perhaps because the constraints on career development themselves have not been fully appreciated.

Principal 8

Interpretive materials that accompany interest inventories can be valuable in exposing and treating some underlying problems in career choice. Improving self-knowledge has been the traditional treatment goal for interest inventories. Improved self-knowledge reassures counselees who have already made suitable choices (criterion 3) and helps others to ascertain what a suitable choice might be if they have either been unable to identify a choice (criterion 1) or have identified an unsuitable one (criterion 2).

More recently, many people have argued that interest inventories should promote the exploration of alternatives because some counselees have a very restricted view of their alternatives (criterion 4). Some arguments about how interest inventories should be normed, and thus how scores are to be calculated and reported, seem to stem partly from the belief that exploration can be promoted by altering scoring procedures. It is debatable whether interest inventories scores themselves should be used to challenge people's images of themselves, even if those images are "stereotyped," in order to promote exploration (Gottfredson, 1982). However, most inventories are now being structured via their *interpretive* materials to promote exploration in other ways. Most importantly, classifications that group occupations according to interest type provide a way for test takers to peruse a wider variety of occupations than they might otherwise, but in an economical and understandable way.

For example, the current *Occupations Finder* for the SDS and VPI lists 500 occupations by interest profile, the forthcoming revision of the *Occupations Finder* will list more than 1,000 titles (Holland, personal communication, November 16, 1984), and the *Dictionary of Holland Occupational Codes* (Gottfredson, Holland, & Ogawa, 1982) provides Holland codes for all 12,099 job titles in the *Dictionary of Occupational Titles* (U.S. Department of Labor, 1977). SCII results are similarly linked to most occupations in the United States economy by virtue of the SCII now providing scores on Holland interest themes (Campbell & Hansen, 1981).

This type of interpretive material may be most useful in overcoming restriction due to lack of knowledge about occupations that limits perceptions of opportunities, but other interpretive materials could be envisaged to counter other sources of restriction of choice. For example, interpretive materials could have counselees explore internal and external conflicts that might explain why their inventoried interests do not agree with their expressed interests, if that is indeed the case. The exercise of exploring goal conflicts may in itself help promote a deeper examination and a prioritization of one's life choices. Although this process is one that the counselor could stimulate and guide, there seems to be no reason that interpretive materials could not be expanded to mimic more of the career counseling process and the treatment it provides.

Principal 9

Interest inventories are useful in developing next-best alternatives when compromises are necessary. Not all conflicts are solvable or all barriers surmountable. Compromises are usually necessary even for the most advantaged people, because either internal or external barriers may block the fulfillment of one's major vocational interests. It is highly likely that vocational interests often are not of highest priority when people have to make compromises (Gottfredson, 1981). This means that the five criteria should be viewed as idealized goals rather than as necessarily fully attainable ones. But it also means that interest inventory results are useful in identifying "next best" alternatives, which is always a desirable practice anyway. They can also be used in helping people to identify nonoccupational outlets for their vocational interests when occupational ones are not accessible. The point here is not that counselors should reconcile clients to the barriers they face, but that they should help counselees to recognize those barriers, deal with them, and if necessary work around them as much as possible.

CONCLUSION

Psychological tests have been under fire for over a decade now, and interest inventories are no exception. Research has failed to show that current major mental tests or interest inventories mismeasure (i.e., provide biased measurement of) the traits of women or minorities in the United States, but questions of *fairness* remain. The concern has become, "What role do or should tests play in a society where social groups differ substantially in both the types and levels of careers they enter, and even in the careers they say they prefer?" This concern is often posed as a choice between measuring the effects of past development and changing the course of future development.

The special-groups literature in counseling psychology has made a good case that counselors cannot confine themselves to measuring and interpreting psychological traits, such as interests and aptitudes, in isolation from the social factors

that impinge on the life chances of their counselees. The controversy over interest measurement is a specific example of the concerns raised in the special-groups literature, because it has drawn heavily on discussions in that literature on the barriers that people face as a result of discrimination and stereotyping. In addition, efforts to improve the fairness of inventories and their use represent one concrete way in which the profession has grappled with these issues to improve current counseling practice. Both external and internalized barriers have been a focus of concern, which has led to inventory changes designed to educate people about the barriers they may face and to changes designed to reveal interests that may have been suppressed by differential opportunities and socialization processes. Although there is no consensus about the proper construction and use of interest inventories, the controversy has led to the promulgation of standards for test construction and interpretation.

The interest inventory controversy has been confined almost exclusively to one special group—women. This is true despite the fact that the social practices that have been claimed to have created the barriers faced by women, minorities, and the handicapped are essentially the same (e.g., discrimination and stereotyping), that those processes are presumed to create both internal and external barriers for all special groups, that the consequences of those barriers are apparently much the same for all social groups (e.g., lower income, occupational segregation, and lack of fulfillment), and that the general solutions offered are often much the same as well (e.g., challenge the status quo, promote exploration). Having focused on women alone, the interest inventory controversy has given counselors little guidance for the use of inventories with minorities, persons with handicaps, and other special groups. Neither has the special-groups literature itself provided much guidance to counselors, because it has focused more on arousing concern and improving rapport with counselees than on showing what a concerned and sensitive counselor might do. Furthermore, speculation has outrun and often ignored the empirical evidence about special groups and their problems.

This chapter outlined and compared the problems that special groups face. It indicated that there are systematic similarities and differences among different special groups, both in the types of risk factors they typically face and in the incidence of those factors within groups. That review of career choice risk factors provides several types of information to counselors. It provides concrete data about group differences that have often been ignored or misrepresented in the special-groups literature. It illustrates that a single theory or framework for evaluating the problems of special groups is not only possible but is also desirable. A more analytical account of the career choice problems of special groups also suggests that counselors should start with the assumption that *all* people face barriers and conflicts, that no one—not even advantaged white males—have unconstrained choice of occupation. Thus, a focus on the problems of special groups stimulates more useful theory and practice for all counselees.

Although it is useful, knowledge about group differences is not sufficient for the counseling of individuals, who may or may not be typical of their groups and who may be members of several. The problem for counselors is how to use information about groups to help individuals without stereotyping them according to their special group statuses. A diagnostic framework was presented that links the risk factors especially prevalent in some social groups (e.g., poverty, cultural isolation, family responsibilities) to the developmental outcomes that have been of concern in the counseling process (e.g., indecision, realism, and unrestricted choice). With this linkage, it is possible to see more clearly what the role of interest inventories has been and might be in counseling members of special groups.

Two main conclusions emerge from that linkage of group problems with individual-level career development criteria. First, it reinforces the growing view that vocational interests are not as powerful an influence on career choice, even for advantaged individuals, as has commonly been assumed in the past. The inadequacies and modifications of interest inventories that have been debated so heatedly in the field pale by comparison to the career-related obstacles posed by parental objections, childcare responsibilities, and perceptions of discrimination in the labor market—obstacles that people face regardless of how their interests are assessed. This in no way means that the fulfillment of interests is unimportant; it means only that fulfillment is often difficult to achieve and may be considered secondary to other personal goals when compromises are required.

The second conclusion is that interest assessment can play a role in opening opportunities and counteracting internal and external barriers, but not in the way usually discussed. There is no inherent dilemma between valid assessment and removing barriers to optimal development, as is assumed so frequently in the interest measurement literature. It is important to have a valid assessment of a person's current vocational interests, even when those interests may be partly the result of cultural restrictions the person has faced. Those interests reflect people's conceptions of who they are—conceptions that are often resistant to change. Whether the goal is to fulfill those interests or to change them, it is helpful to know what they are, because they influence career attitudes and behavior. Although not generally perceived as such, promoting exploration or change is a separate issue in the construction and use of interest inventories. Interpretive materials can be designed to promote exploration, and change in self-conceptions too if that is desired by the counselee, without compromising the assessment function of an inventory. Perhaps the most overlooked potential use of inventories in career counseling is as tools for diagnosing some of the constraints people face that may impede career development in general and the fulfillment of vocational interests in particular. By juxtaposing interest inventory results to other client goals and constraints, those results can be used to help expose, reassess, and more effectively deal with impediments to successful career development that clients may not have fully recognized earlier.

To summarize, the interest inventory issue regarding special groups is not one of assessment *or* social change. Rather, it is assessment *and* exploration of opportunities and constraints. Whether these two activities are accomplished by an inventory alone or by an inventory supplemented by other materials, beneficial test usage requires both. Beneficial usage may lead to the reduction of group differences, but that should not be its objective; the objective is to help individual test takers better fulfill their potentials, whatever they are.

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