

## CROSS-CULTURAL AND SUBCULTURAL RESEARCH IN PSYCHOLOGY AND EDUCATION

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The task of constructing and adapting instruments, applied programs, and research designs in psychology and education for comparable use across multiple cultural and linguistic groups presents complex and challenging conceptual and methodological issues even to the cross-cultural specialist. A perennial concern of the behavioral scientist and practitioner is the extent to which his work may be generalized to different populations. Most cross-cultural and subcultural undertakings to date, however, consist of unsystematic replications of programs developed in another society. Moreover, as Holtzman (1964) has noted, problems such as those of sampling, linguistic equivalence of meaning, examiner variability, and cultural variation in response set are usually lightly considered or ignored completely in cross-cultural designs. Despite the initial naiveté and exuberance of early researchers, the situation is rapidly improving as the sophistication of cross-cultural specialists as well as the resources available grow.

A series of criteria or "superego" for the attainment of adequate cross-cultural research standards has been proposed recently by Berrien (1970). An adequate cross-cultural undertaking should include two or more investigators from different countries, with financial support from each home country. Furthermore, the problems investigated should be of common concern to the cultures under study. Of course, the topics of study might be relevant social issues of the time or more basic research questions of no apparent immediate social application. Joint definition of the problems, the use of comparable methods, and the joint "ownership" of data by collaborators who are free to report their own interpretations to their constituents, but who are obligated to strive for interpretations acceptable to a world community of scholars, complete the set of standards proposed by Berrien. I would add to this list of standards for adequate cross-cultural research undertakings the presence of bicultural and bilingual specialists, particularly when, as is often the case, different linguistic groups are involved. The extreme difficulty in finding adequately trained persons who

can also function at home in two or more cultural-linguistic settings and who are fully sensitive to the relevant issues in these cultures is well known to the seasoned worker in the field. In order to fill this lamentable lack, cross-cultural and subcultural research projects should endeavor to maintain a broader perspective which entails possibilities for training and cross-cultural experiences for scientific workers; i.e., opportunities for professional as well as cultural and linguistic development. A research project need not restrict itself to purely research goals.

In a conceptual system of classification suggested by Holtzman (1968), cultural factors may be divided into three major classes: (a) cross-national differences; (b) cross-language differences; and (c) subcultural differences. The cross-national category generally refers to studies comparing two or more Western countries, whereas examples of subcultural factors include such variables as socioeconomic status, ethnic origin, educational level, occupation, and degree of urbanization. These three classes of cultural variables suggest a way in which cross-cultural research can be broadly conceptualized. Another major dimension of importance in conceptualizing cross-cultural programs is the complexity of the behavior of interest. Generally, the more complex the behavior, the more important are the cultural variables as determinants of the behavior. The highly molecular areas that can be studied fairly rigorously in the laboratory show very little variation when properly done, regardless of the national, linguistic, or subcultural variation that may exist. The higher levels of behavioral complexity that may be studied cross-culturally include such variables as social interaction in small groups or family interaction studies. In some instances behaviors may be so complex and uncontrolled that cross-cultural comparisons of any validity are rather difficult to make.

A typology offered by Angelini (1964) differentiates four types of cross-cultural research. In one type the investigator addresses himself to another culture in order to analyze aspects of behavior already known in his culture. An inconvenience with this type of investigation is the lack of a proper cross-cultural plan; rather the comparison in such cases is made in an *a posteriori* fashion. In another type of cross-cultural research, the investigator repeats in his culture previous studies on other cultures by others. In such cases any comparisons made are of doubtful validity due to possible differences in cultural meaning of the variables under investigation or in the methods of collecting data. In a third type of cross-cultural research an investigator from one culture, acting as chief investigator, invites colleagues from other cultures to join a team which will gather data on several sam-

ples, according to a plan layed out by the chief investigator. An inconvenience may result from this approach if the chief investigator is not well acquainted with the peculiarities of each culture. The research strategy, in that case, may not be equally applicable to each culture. The most adequate type of cross-cultural research is one resulting from the cooperative plans developed by a group of investigators from different cultures.

In addition to methodological issues typically found in studying human behavior, Holtzman (1968) notes three major issues peculiar to cross-cultural undertakings: the confounding of cultural variables, the lack of semantic equivalence in instruments, and methods of collecting data. Aside from these major methodological issues are considerations of a political, economic, and strategic nature which can profoundly influence the outcome of cross-cultural programs in psychology and education.

Angelini (1964) has outlined five common problems in cross-cultural investigations. First is the problem of sampling units, that is, the attainment of a representative sample from a heterogeneous culture. The criterion of identification of subjects should be equivalent in all the nations to be compared. Also present is the problem of financial support. I strongly feel it is important that all participant nations contribute, financially and otherwise, according to their resources. Next is the problem of lack of trained researchers, which may be overcome through an international exchange of students and scholars. Fourth is the problem of the language barrier, and lastly is the very important issue of adapted instruments. It is well known that different cultures cope differently with the test situation. A psychological or educational instrument can only have a reliable employment in other cultures provided its results were not conditioned by the cultural patterns of each community, or if this factor is taken adequately into account by the investigator. What is required is adequate standardization of the instruments within each culture. In the case of U. S. personality tests, for example, some authors have proposed that criterion-group developed tests should not be used for cross-cultural comparisons; only those tests which utilize the construct-oriented approach may be validly used for this purpose.

The use of paper and pencil instruments for any purpose whatever is not permissible unless the groups to be compared have had an equal amount of schooling. Unfamiliarity with paper and pencil as a medium of expression is obvious, in varying degrees in certain cultures (Bieshevel, 1949). Many testers have resorted to pictorial material, not only because it could set a task without the use of language, but also because the appropriate

cultural note could be introduced. All these tests overlook the fact that the picture, particularly one printed on paper, is a highly conventional symbol, which the child reared in Western culture has learned to interpret. To make the object pictured culturally meaningful is of little avail, if pictorial representation itself is unfamiliar, and if it does not evoke the attitude of interpretation which a particular group automatically assumes. Nonrepresentational drawings are used in such tests as the Cattell Culture-Fair Test, Progressive Matrices, Koh's Block Designs, and Porteus Maze Test. The non-Westerner with a limited scholastic background has some difficulty in appreciating the purport of the figures and designs presented in these tests. Part of this difficulty may be due to mode of presentation on paper, but one may suspect that more fundamental factors are involved. In tests which involve appreciation of spatial relations it is likely that the task which certain cultural samples set themselves is different from that which they were set by the tester; that they may deal with certain features of the situation and ignore others; or that spatial position in a test which is abstract anyway may not appear to matter. Many of the performance tests used for intelligence testing involve some degree of manipulative skill which, though not of a higher order, may nevertheless account for some of the test variance. An element of clumsiness is often apparent in particular samples of children who have not had much opportunity to play with blocks or jigsaw puzzles. In adults used to heavy manual labor this is even more apparent. It seems obvious, as Biesheveul (1949) has noted, that research work into the perceptual, manipulative, and problem-solving habits of various racial groups, with special emphasis on cultural determination, is badly needed. Until more facts are available from studies of this type, it will not be possible to control adequately the cultural factors in tests to be used for inter-cultural comparisons of educability.

Other variables which may exert an effect upon results involving cross-cultural or subcultural undertakings if not taken properly into account in the research design are test administration, attitudes toward the test situation, temperamental factors, school education, and factors which influence the development of genetic capacity, such as nutrition, parental care, parental intelligence, and home environment.

A different approach to cross-cultural research from the most commonly seen one of seeking to specify the extant differences between cultures is one which attempts to establish the underlying characteristics that are *common* to two or more cultures, seeking to establish fundamental psychological laws. For instance, the work of Osgood (1964) and his colleagues

using the Semantic Differential Technique for the comparative study of many cultures is providing rather convincing evidence that there exists a universal framework underlying the affective or connotative aspects of language. Another example is a series of recent investigations by the present author and his colleagues at the University of Texas (Laosa, Swartz, & Diaz-Guerrero, 1970; Laosa, Swartz, & Moran, 1971; Laosa, 1971) carried out to determine the generality of particular aspects of linguistic development in free word associations. These studies have shown very interesting similarities, as well as differences, in the development of semantic and grammatical associative tendencies of Spanish- and English-speaking children in Mexico and the United States. A very important issue in cross-cultural research is the extent to which manifestations of personality are tied inextricably to language. Some aspects of personality do indeed appear different when one language is used for responding to a psychological test than when another is used by the same person. This phenomenon was exemplified in the study by Ervin (1964), who gave selected cards of the Thematic Apperception Test to sixty-four bilingual Frenchmen, once in English and once in French. The response content and associated personality variables shifted significantly from one language to the other in ways that were predictable from knowledge of the two cultures. It follows that, to the extent to which this phenomenon generally occurs across languages, important manifestations of personality may be difficult to interpret. Until further work is done with bilingual subjects, cross-cultural interpretations have to be qualified in terms of possible unknown confounding variability due to linguistic differences of expression as well as semantic variations, cultural variability in the meaning of examiner-subject interaction, or cultural differences in response set.

Connected with the discovery and further investigation of the perceptual type of intelligence, some investigators have developed test forms involving neither reading nor reference to culture-bound pictures, suggesting that these instruments are a better answer to the need for comparable assessment of various linguistic groups. Many of these so-called "culture-free" tests, such as Cattell's (1959) indeed might not be culture free among certain cultural groups. Although the actual content of the instrument may be free of specific reference to any kind of culture, such habits as working to a time limit and of implicitly competing with other members of one's group are foreign to certain cultures. These difficulties may be partially overcome in some situations by administering these measures as "power" tests instead of "speed" tests and by individual testing so arranged that it

does not involve potential conflict over possible cooperation versus competition. However, if such departures from the standard situation are to be used adequately, suitable norms need to be developed for the different cultural groups. An added reason why some tests may not be truly culture-free for some societies is that sustained motivation may not be easily achieved among certain groups, so long as there is no more activity generated than is involved in using paper and pencil. In an attempt to overcome this difficulty, some adaptations have been developed, such as enlarging test items, embossing them on wood blocks, etc. An often-overlooked source of variance which may confound the interpretation of cross-cultural or subcultural research results is that one cannot assume that the habits of working on artificial materials for remote rewards is comparable across different culture groups. Under some circumstances it may appear desirable to create immediate rewards in whatever form is appropriate to the culture. Extreme caution is warranted when making inferences or reaching conclusions from results of research employing such cultural adaptations. As yet, the usefulness and validity of such adaptations for cross-cultural comparisons needs to be researched in more rigorous detail before valid inferences can be drawn from results of their application.

Even a seemingly culture-free instrument such as the human-figure drawing task scored by the Goodenough-Harris system (Harris, 1963) involves categorizing a fairly complex performance according to items developed within a particular cultural setting. A given cognitive or perceptual category may not be as salient or important in another culture (Laosa, Ahumada, Swartz, & Holtzman, 1971). Furthermore, a person's drawing of certain body features or parts is influenced by garb and by other conditions of living that call attention to particular parts or their functions. Allowance has to be made, both in the scoring system and in the norms, for parts omitted or added in each separate culture. Such allowance would have to be worked out empirically within each culture group. Of course, the test may still rank children within a culture. For most valid results, however, the points of the scale should be restandardized for every group having different cultural patterns. It is becoming increasingly obvious that mean differences among large, representative samples drawn from varying cultures express the gross differences in conceptual experience and training these groups have. Further research will be necessary to determine exactly which aspects of intellectual or conceptual maturity are expressed in such tasks as the drawing of the human figure and to explain in more rigorous detail any observed cultural differences on these instruments.

The situation of the rapidly growing field of cross-cultural psychology is not quite so discouraging as it may first appear, however, and the possibilities and challenges facing us are quite exciting. Even in a bicultural study, a great deal of insight can be gained into the role of specific cultural variables in human behavior, provided that care is taken to include sub-cultural variations which can be matched cross-culturally, to employ well-trained, indigenous examiners who have been calibrated cross-culturally, to use only techniques that can be defended in both cultures and to secure the close collaboration of investigators native from each culture.

In concluding, then, it appears obvious that mere translation and superficial adaptations of existing measures of cognitive, perceptual, and personality development and functioning is not sufficient for producing valid cross-cultural and subcultural comparisons. Strong emphasis is needed in producing new techniques of scaling, test theory, and multivariate experimental designs, as well as devising procedures which are indigenous to the culture under study. A broader perspective is needed in conceptualizing and implementing research projects by including within them possibilities for professional training as well as for cultural and linguistic development. We need adequately trained persons who can function at home in two or more cultural-linguistic settings and who are fully sensitive to the issues discussed in this paper in both cultures. Only then the translation, calibration, and administration of psychological and educational measures across cultures can be carried out in a close and continual collaboration of specialists from each culture.

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## FOOTNOTE

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