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The Attitudes Toward Disabled Persons Scale was used to measure the attitudes of special education and rehabilitation workers, elementary and secondary teachers, managers and executives, and laborers from 11 nations toward the physically disabled or handicapped and toward education. Hypotheses based on Kerlinger's theoretical model were investigated: traditionalism, or--a conservative-traditional approach to educational issues emphasizing subject matter for its own sake, external discipline, and maintenance of the status quo; and progressivism, emphasizing the problem solving approach, internal discipline, liberal social beliefs, and education as an instrument for change. Attitudes were related to values, sex, contact with disabled persons, enjoyment of contact, change orientation, institutional satisfaction, religiosity, group membership, modernization, and multidimensionality. Results are summarized; 69 tables present data. (RP)

RESEARCH REPORT NO. 1



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ATTITUDES TOWARD EDUCATION AND PHYSICALLY DISABLED PERSONS IN ELEVEN NATIONS

By John E. Jordan



U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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FOREWORD

The formidable economic and social challenges facing the nations of Latin America require that our researchers deal with issues and topics significant to the grave problems which threaten to disrupt the future stability and continued development of the region. Dr. Jordan's study deals with one such central issue in Latin America, namely, attitudes toward education and toward physically disabled persons held by important groups within those nations. This particular study focuses on four occupational or interest groups, each influential in educational development. The four key groups are teachers, both elementary and secondary; managerial and executive personnel; white collar workers and laborers; and special educators and rehabilitation personnel.

Millions of persons in Latin America, unable to profit from the educational offerings in their countries, remain "outsiders" to society's mainstream of regular education and vocational programs. These disabled millions merit consideration for humanitarian concerns, as well as for social necessity and economic efficiency if human resources are to be truly developed in Latin America. Dr. Jordan's study seeks to ascertain how key groups view disabled persons and education. Once the attitudes of these key groups are known, educational programs can be modified to help accomplish the developmental goals.

The Latin American Studies Center at Michigan State University endeavors to assist those scholars who add to our knowledge of Latin America. Assistance takes various forms--research and travel grants, released time for writing, publication of research results or, perhaps, a combination of all three. The Center actively encourages research in the "gray" areas of disciplines, realizing the greater risks involved, but equally realizing the greater gains attainable in hitherto unexplored, yet worthy fields of investigation. The Latin American Studies Center is most pleased to have had a part in this new area of research.

Latin American Studies Center
Michigan State University
Garland P. Wood
Director

REVIEW

This is a most extraordinary effort combining as closely as it does a large scale data analysis with a complexly elaborated theoretical system. All too often researchers have complex theories, and too little data--or inadequate techniques--for a correspondingly complex analysis of data. Or conversely they may have mounds of data with too little theory to guide an analysis.

Jordan's work is the first in this field to strike a balance between theory and data analysis on such a large scale. I believe this is one of the most important features of the book, apart of course from the substantive findings.

An unabridged publication will help remedy a failing we keep finding in research reports. Further analyses are usually called for in such rich data, and other researchers should have them readily available.

Louis Guttman, Ph. D.
Scientific Director
Israel Institute of Applied
Social Research
Jerusalem, Israel

PREFACE

The body travels more easily than the mind, and until we have limbered up our imagination we continue to think as though we had stayed at home. We have not really budged a step until we take up residence in someone else's point of view.

John Erskine in The Complete Life

This project began in Guatemala City and ended in Jerusalem five years later with the journey entailing six crossings of the Atlantic, four tours around the rim of South and Central America, and six trips to Guatemala; covering an estimated 200,000 miles; visiting the U. S. S. R. ; living through revolutions in Guatemala, Argentina, Bolivia, Peru, Venezuela, and Brazil; being delayed by the "Six Day War" in the Middle East; witnessing student demonstrations in Argentina, Guatemala, Peru, Venezuela, Colombia, Iran, Poland, and the United States; and acquiring a set of obligations which one life cannot discharge.

Such a journey obviously required the cooperation and assistance of a great many people and organizations too numerous, in fact, to mention. Two persons, however, contributed in such a major way that without them this volume would not have been written. Dr. Garland Wood, the director of the Latin American Studies Center at Michigan State University, believed in and supported me when the project was merely a dream; and Dr. Louis Guttman, Scientific Director of the Israel Institute of Applied Social Research of Jerusalem, Israel, provided the technical assistance and personal encouragement without which the facet theory and multivariate analysis aspects of the project would have been impossible. To both of them I am deeply grateful.

The volume is really two studies, one on attitudes toward education and one on attitudes toward physically handicapped persons. The project began while I was attending the First Inter-american Conference on Work for the Blind in Guatemala City, March 16-22, 1963. The original focus was on Latin America, but in the process of adding other nations as comparison groups, it acquired a more international emphasis.

The amount of data turned out to be almost impossible to analyze in one undertaking. The major variables are analyzed in this volume and examination of Appendix B and C. 1 reveals the varied analysis possibilities of the study. In many respects, the study was exploratory and further research is already underway based on the present results and implications.

As we sit here at the Institute of Defectology in Zagreb, Yugoslavia, planning the next phase of our research, Erskine's observations become pregnant with meaning: In the last five years we have attempted to take up residence from the point of view of at least twelve nations; objectively, we can say we have slept in their beds, eaten at their tables, enjoyed their fellowship, debated with their students and professionals, and learned to love, to live and to let live. We can only hope they have accepted us in the same manner.

Institute of Defectology
University of Zagreb
Zagreb, Yugoslavia
March 9, 1968

John E. Jordan

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The statements made in this volume are solely the responsibility of the author. The study could not have been completed, however, without the financial support provided by the following sources: the Nations involved; the Latin American Studies Center--M. S. U. ; the Institute for International Studies in Education--M. S. U. ; the Committee for Eastern European Studies--M. S. U. ; the U. S. Vocational Rehabilitation Administration; the Cultural Affairs Bureau--U. S. Department of State; the Agency for International Development--U. S. Department of State; and the U. S. Office of Education.

The author is also indebted to the following organizations for informational assistance throughout the project: Rehabilitation Unit--Department of Economic and Social Affairs, United Nations, New York; World Health Organization, Geneva; International Labor Organization, Geneva; and the International Society for Rehabilitation of the Disabled, New York.

Special appreciation is also extended to Mrs. Helen Sheets, Latin American Studies Center --Michigan State University, who typed and edited the final manuscript, her patience was unending.

The research was completed under Office of Education Cooperative Research Project No. 5-8348-2-12-1, Contract No. OE-6-10-139, U. S. Department of Health, Education, and Welfare. The data from the United States, Costa Rica, Colombia, and Peru are open to the public domain since they were gathered as a part of the research contract. All other data, including comparisons to them, are fully copyrighted.

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Chapter 1

NATURE AND THEORY OF THE STUDY

Breakfast over, our unsuspecting American Patriot places upon his head a molded piece of felt, invented by the nomads of Eastern Asia, and if it looks like rain puts on outer shoes of rubber, discovered by the ancient Mexican, and takes an umbrella invented in India. He then sprints for his train--the train not the sprinting, being an English invention. At the station he pauses for a moment to buy a newspaper, paying for it in coins invented in ancient Libya. Once on board he settles back to inhale the fumes of cigarettes, invented in Mexico, or cigars invented in Brazil. Meanwhile, he reads the news of the day, printed in characters invented by the ancient Semites, by a process invented in Germany upon a material invented in China. As he scans the latest editorial, pointing out the dire results to our institutions of accepting foreign ideas, he will not fail to thank a Hebrew God in an Indo-European language that he is 100 per cent--decimal system invented by the Greeks--American. (Department of State, 1966).

Ralph Linton's summary might well be an introduction to any modern cross-cultural or cross-national consideration--whether American, African, Arab, or Yugoslavian; but, perhaps, it is particularly appropriate to the American--that evolving genetic composite of world history!

For many people the term "cross-cultural" suggests a comparison of things which necessarily implies the "different." Those who have been involved in these studies, however, are often struck by the similarities, the "universals" that exist which seem far more prevalent than the peculiarities. This study was no exception. It was concerned with certain "constants" or "invariants" in the formation of attitude regardless of the cultural milieu in which the attitude was formed. The influence of culture was also a variable in the study, but only one among many. A recent study of modernity in six nations notes the following:

To us the most fundamental of these observations lies in the evidence we find of the trans-cultural nature of the human psyche. We consider it notable in the highest degree that a pool of some 119 attitude questions and some 40 related informational and behavioral items should show such extraordinarily similar structure in six such diverse countries (Argentina, Chile, India, Pakistan, Israel, and Nigeria) and even more than that number of cultural groups. . . . we hope to elaborate on these connections, and through an analysis of the forces which make men modern to throw some light on the psychic unity of mankind--a unity which we can demonstrate is increasing (Smith and Inkeles, 1966, p. 377).

A Knowledge of Attitudes Toward Education is Fundamental to the Establishment of Programs to Increase the Range and Scope of Education. Throughout the world one finds attempts to increase the availability and relevance of education to persons who have been unable to profit from the typical educational offering--persons who are "outsiders" to society's mainstream of regular education and vocational preparation programs. We are concerned with these outsiders because of egalitarian and

humanitarian values, social necessity, and economic efficiency, three motives which have been variously ascribed to the acceptance and growth of progressive-person-centered education. Currently in the United States much attention is being given to education for the "defeated" of society; i. e., the economically handicapped.

This study is concerned with how different groups--both internal and external to educational practice--view education and disabled persons, and what determines the kinds of view such groups hold. The principal variables of this study are valuational and attitudinal, reflecting the belief that only through an awareness of these factors can educational programs be most effectively developed, understood, and changed.

In this study attitudes toward education and toward disabled persons were examined in eleven nations: United States, Costa Rica, Colombia, Peru, England, Holland, France, Yugoslavia, Denmark, Japan, and Belgium; testing hypotheses, looking for cross-cultural "invariants" and hoping for at least heuristic results, both in methodology and in knowledge about the structure and determinants of attitudes.

Special programs have necessitated the development of new techniques and concepts of educational/vocational development to match the divergent learning and life adjustment problems of their consumers. Thus, while the expansion of education into such special programs is in itself an innovation, the concomitant developments in teaching methods and techniques are also new and should have relevance to problems of education generally.

An equally important concern of the present research was to analyze the attitudes of groups who stand in some functional relationship to educational development. This study focused on four occupational or interest groups because each is influential to educational development and serves to provide comparison and control data to the others:

1. Teachers, both elementary and secondary, who are the main adopters and transmitters of new educational practices.
2. Managerial and executive personnel who were postulated to be the opinion makers, the educational direction-setters, and the employers in the community.
3. White collar workers and laborers, who potentially represent the largest group of consumers and supporters of public education.
4. Special educators and rehabilitation personnel who work in special programs for persons with unique physical-social problems or needs.

This study of educational attitudes in other countries could help to direct and evaluate educational development programs sponsored by the U. S. government, could be intrinsically useful to the countries concerned, and could assist in evaluating research outcomes within the United States.

The extent of commitment of a society to the full education of its own "outsiders," i. e., ethnic groups, disabled, etc., is an index of the fundamental commitment of that society to the development of education generally. It is further postulated that such a commitment is not compatible with a focus upon the individual as subservient to the State.

Because countries vary in the extent to which they believe they can commit resources to education, to know the facts of special and general educational development within a country would seem important. For example, would a larger investment in education be more likely to expand the base of educational consumers, or to be directed toward a better education of the elite? To what extent would those who are perceived to be of little functional use to society be acceptable as recipients of education by the various interest groups of society? These are attitudinal and valuational questions. The answers would seem to have practical significance to the development of general educational programs and to the interpretation of the direction in which existing programs have developed. In addition, such data from countries at various stages of modernization and educational development provide valuable historical and geographical perspective for the assessment of the determinants of educational attitudes and are, thus, of theoretical value.

The research team was confronted with a number of theoretical, methodological, and technical problems. The theoretical problem centered on inter-relationships among attitudes, interpersonal values, and personal contact with education and with disabled persons, under the assumption that both value and contact are instrumental in determination of attitudes.

A primary methodological difficulty was that of developing an adequate solution to the problem of cross-national/cultural/linguistic comparability of data units (UNESCO, 1964).

The technical problem had two aspects: logistic and statistical. The logistic problem involved the establishment of relationships with competent researchers interested in giving assistance with the research, including the translation of the questionnaires, selection of the sample, and the obtaining of necessary clearances. The statistical aspect involved scoring, organizing and processing the data systematically in a way suitable for the comparison of a variety of cultural analyses.

In summary, the purpose was to study the theoretical, methodological, and technical issues pertaining to the cross-national investigation of attitudes toward education and toward disabled persons. Using a set of cross-national comparisons, an attempt has been made to relate these attitudes to other demographic variables such as age, sex, and income, which from a theoretical standpoint, should serve as either correlates or predictors. A final aspect of the study was to develop a set of techniques to facilitate the collection, organization, and analysis of data which could be used in subsequent studies

NATURE OF THEORY

The term "theory" is not used here in a highly rigorous sense. Most of the theory considered is at a level of partially verified propositions which have been placed within a perspective which suggests a kind of inter-relationship and order among them. These propositions are what are referred to by Zetterberg (1963, p. 21) as "ordinary," rather than theoretical with a varying degree of informational value, much of it a relatively low level.

Theory and research are presented as a "provisional systemization of events." The topics to be reviewed include attitudes toward education, attitudes toward the physically disabled, attitudes and value orientations, attitude intensity and personal contact, empirical research on attitudes, measurement of attitudes, and problems of cross-cultural measurement.

DEFINITIONS

Some of the terms of the study require definition because they are generally unfamiliar or have a special meaning as used in this study. The reader should become familiar with the meanings of the following terms.

Attitude: The sense in which this general term will be used follows the definition by Guttman (1950e, p 51). An attitude is a "delimited totality of behavior with respect to something." For example, the attitude of a person toward Negroes could be said to be the totality of acts that a person has performed with respect to Negroes. Use of this definition is consistent with the attempt to use some of Guttman's concepts¹ for scale and intensity analysis.

¹ Professor Louis Guttman served as the consultant on facet theory and non-metric multivariate analysis procedures. Responsibility for the interpretations throughout this volume must, however, rest solely upon the author of this volume.

Attitude Component: In the attitude scales used, the first component of an item will be that of item content (or belief), the second that of item intensity. Components of attitudes are viewed as separate and measureable aspects of attitudes and have been discussed by various investigators (Katz, D., 1960, p. 168; Rosenberg, 1960, p. 320 ff.; Guttman, 1950e, Ch. 9). The two components typically considered are those of belief and intensity, although Guttman defines additional components according to certain mathematical properties.

Attitude Content: The attitude content component refers to the actual item statements within an attitude scale.

Attitude Intensity: The attitude intensity component refers to the affective statements that a respondent makes regarding each content item; operationally, it consists of a separate statement for each attitude item on which the respondent may indicate how strongly he feels about the statement.

Attitude Scale: As used in this study, a scale is a set of items which fall into a particular relationship in respect to the ordering of respondents. A set of items can be said to form a scale if each person's responses to each item can be reproduced from the knowledge of his total score on the test within reasonable limits of error.

Demographic Variables: Specifically, this refers in the present study to certain statistical data frequently used in sociological studies. These variables are age, sex, education, income, rental, occupation, number of siblings, occupational and residential mobility, and whether the respondent spent his youth in a rural or urban setting.

Educational Progressivism: Emphasizes the problem solving approach and de-emphasizes subject matter for its own sake. Equality and warmth rather than discipline are valued in interpersonal relations.

Educational Traditionalism: Emphasizes subject matter for its own sake and discipline is considered important.

Handicap: Signifies the social disadvantage placed upon a physically impaired person by virtue of the impairment. A handicap is a consequence of culturally held values and attitudes which serve to define the physically impaired person socially.

Impairment or Disability: A defect in tissue or body structure. As such, it has no particular functional connotations.

Institutional Satisfaction: A term used to describe a set of variables on which the respondents were asked to indicate how well they felt various kinds of local institutions were doing their jobs in the community. These institutions were schools, business, labor, government, health services, and churches (or religion)

Interest Group: Any group that, on the basis of one or more shared attitudes, makes certain claims upon other groups in the society to engage in particular forms of behavior. Associational interest groups work as collectives to exert influence (Almond and Coleman, 1960)

Occupational Personalism: A term operationally defined by questionnaire items designed to ascertain: first, about what percent of the time people work with others with whom they feel personally involved; second, how important it is to work with people with whom one is personally involved. A personalistic orientation to life is sometimes considered to be a distinguishing characteristic of traditional social patterns (Loomis, 1960).

Rehabilitation: A term signifying "restoration of the disabled to the fullest physical, mental, social, and vocational usefulness possible" (Jordan, 1964a).

Relational Diffusion: A term operationally defined by a questionnaire item designed to determine the extent to which personal relations on the job diffuse into a person's non-job milieu (socially). A personalistic diffusion between the social milieu and occupational milieu is sometimes considered to be a distinguishing characteristic of traditional social patterns (Loomis, 1960).

Religiosity: A term used to denote orientation to religion. Operationally, it is defined by three terms: first, religious preference; second, the importance of religion; third, the extent to which the rules and regulations of the religion are followed.

Special Education: Following Kirk (1962, p. 29) this term characterizes educational practices "that are unique, uncommon, of unusual quality and in particular are in addition to the organizational and instructional procedures used with the majority of children." Jordan (1964a, p. 1) has commented: "the basic aim of special education is to prevent a disability from becoming a handicap."

Value: Two value categories are used, but defined operationally by the same set of measures. Asset values predispose a person to evaluate others according to his own unique and inherent qualities. Comparative values predispose a person to evaluate others according to some preconceived external criteria of success and achievement (Wright, 1960, pp. 128-133). Operationally these values are defined by three scales on the Survey of Interpersonal Values (Gordon, L., 1960). Asset values (measured by the Benevolence scale) predispose a person to evaluate others according to their intrinsic worth, and comparative values (measured by the Recognition and Leadership scales) predispose an evaluation of others in comparison to some external standard such as ability to work, intelligence, etc.

This volume was written for two audiences: the researcher/scholar and the practitioner/research consumer. The former will wish to read the volume in its entirety, giving particular attention to the technical and statistical material in the Appendices; the latter may wish to turn directly to Chapter 4, reading it first and returning to the other chapters only as stimulated by some specific substantive or methodological issue.

CHAPTER 2

RATIONALE AND PROCEDURES OF THE STUDY

This study investigated attitudes toward two attitude objects: education and disabled persons. One of the few attempts to develop a theoretical model to study attitudes toward education has been that of Kerlinger (1956, 1958, 1967). His model and the scale he developed were used in this study.

ATTITUDES TOWARD EDUCATION

According to Kerlinger, educational attitudes can be conceptualized as two relatively independent factors or variables, representing two distinct ideologies: traditional and progressive. In this model, traditionalism is not just the opposite of progressivism. To Kerlinger, the opposite of progressivism is anti-progressivism. Traditionalism seems to have an existence of its own. Rather than conceiving of traditionalism as simply the negation of progressivism, as is usually done, Kerlinger argues that it is more correct to conceive of it as a positive affirmation which emphasizes a conservative-traditional approach to educational issues and problems. Progressivism also seems to be a positive affirmation in its own right. When we say a man is an "educational progressivist" we do not mean only that he is anti-traditionalistic. While this is undoubtedly true, it is more important to suggest that progressivism is an independent stance in its own right (Kerlinger, 1958, pp. 296, 330).

Kerlinger defines a restrictive-traditional factor as one emphasizing subject matter for its own sake. The hierarchical nature of impersonal, superior-inferior relationships is considered important as is an emphasis on external discipline. In such a system, social beliefs are preserved through the maintenance of the status quo. In contrast, the permissive-progressive factor emphasizes the problem solving approach and de-emphasizes subject matter as the primary focus of education. In this frame of reference, education is viewed as a growth experience with the child's interests and needs being given primary attention. Equality and warmth in interpersonal relationships are valued. There is an orientation toward internal rather than external discipline, and social beliefs tend to be liberal, emphasizing education as an instrument of change and as a procedure or guideline for learning to live (Kerlinger, 1958, p. 112). Kerlinger's theory may be summarized in four propositions:

1. Individuals having the same or similar occupational or professional roles will hold similar attitudes toward a cognitive object which is significantly related to the occupational or professional role. Individuals having dissimilar roles will hold dissimilar attitudes.

2. There exists a basic dichotomy in the educational values and attitudes of people, corresponding generally to "restrictive" and "permissive" or "traditional" and "progressive" modes of looking at education.
3. Individuals will differ in degree of strength of dichotomization, the degree of strength of dichotomization being a function of occupational role, extent of knowledge of the cognitive object (education), the importance of the cognitive object to the subjects, and their experience with it.
4. The basic dichotomy will pervade all areas of education, but individuals will tend to attach differential weights to different areas of (a) teaching--subject matter--curriculum, (b) interpersonal relations, (c) normative expectations, and (d) authority, discipline (Kerlinger, 1956, p. 290).

Based on the implications of these observations and propositions, Kerlinger evolved the following paradigm to investigate educational attitudes:

<u>ATTITUDES</u>	<u>AREAS</u>
(1) Restrictive-traditional (dependence-heteronomy)	(a) Teaching--Subject Matter- Curriculum
(2) Permissive-progressive (independence-autonomy)	(b) Interpersonal Relations (k) Normative-Social (conventionalism--non-convention- alism) (m) Authority-Discipline

An attitude statement expressing 1-a would be: The true view of education is to arrange for learning in such a way that the child gradually builds up a storehouse of knowledge that he can use in the future. A statement illustrating 2-a would be: Knowledge and subject matter are not so important as learning to solve problems involved in daily living.

Kerlinger indicates that occupational roles and role expectations are dynamic independent variables influencing attitudes. Individuals having similar roles might be expected, therefore, to have similar attitudes and a similar structure.

ATTITUDES TOWARD THE PHYSICALLY DISABLED

This study also investigated attitudes toward the physically disabled or handicapped. The Attitudes Toward Disabled Persons scale (ATDP)(Yuker *et al.*, 1960) was used as the criterion instrument. There have been a number of studies considering attitudes towards specific kinds of physical disability which are relevant to the present research. Many of these have been reviewed in Barker, (1953), Cruickshank (1955, 1963), Wright, (1960) and in other general reference works. Only those studies relevant to the present research will be reviewed below.

Researchers who have investigated the attitudes of non-disabled members of society toward disability have reported general lack of acceptance of this minority group. Baldwin (1958), Johnson, G. (1961), and Thurston, Thelma (1960) have reported similar findings in this regard.

Hanks and Hanks (1948) conducted a systematic analysis of attitudes toward the disabled in an attempt to determine relationships between structural and functional characteristics of several non-occidental societies. They conclude that the physically disabled are better protected and have more participation in societies where:

1. the level of productivity is higher in proportion to the population and its distribution more nearly equal.
2. competitive factors in individual or group achievement are minimized.
3. the criteria of achievement are less formally absolute as in a hierarchical social structure and more weighted with "concern for individual capacity" as in democratic social structures (pp. 19-20).

According to Tenny (1953) there are similarities between the handicapped and other minority groups in our society. These similarities can be summarized:

1. Social distance exists and rejection takes place. The individual usually becomes more aggressive.
2. Minority groups and the handicapped usually become stereotyped in the eyes of the public through movies, comic strips, and jokes. This, in part, explains the negative attitude of the general public toward these groups.
3. As society rejects these stereotyped groups they become segregated.
4. Job opportunities for these groups are limited, resulting in low economic and social status.

Felty's study (1965) of attitudes toward physical disability in Costa Rica served as the pilot study for a number of cross-cultural investigations at Michigan State University (Cessna, 1967; Dickie, 1967; Friesen, 1966; Green, J., 1967; Krieder, 1967; Mader, 1967). The occupational interest groups were varied, but the hypotheses of these studies were essentially the same and allowed for comparisons of data.

Felty hypothesized that persons who score high in need for power and control over others will tend to score low in acceptance of the disabled; however, the positive relationship between asset values and acceptance of the disabled did not seem to be supported. His data generally supported his position.

The data of Mader (1967) and Gordon, L. (1960) are in agreement with Jordan (1963a) who has suggested that in Latin America those persons actively engaged in the areas of rehabilitation and special education differ in values from the majority. In discussing these differences, Jordan has drawn from the work of Almond and Coleman (1960) in the characterization of various types of groups and associations in society, and also on the work of Rogers, E. (1962) and Katz, D., et al. (1963) on the characteristics and process of innovation diffusion. Rogers as well as Almond and Coleman have drawn on the sociological typologies. No attempt will be made here to summarize this vast literature, or the detailed analysis underlying the conclusions. However, Jordan has hypothesized that rehabilitation and special education groups in Latin America are characterized by modern social values of "democracy, constitutionalism, humanism, the scientific process, and universal suffrage" and more generally, by "specificity, universalism, achievement, and affective neutrality" (1963a, p. 17).

ATTITUDE INTENSITY AND PERSONAL CONTACT

The present research investigated the relationship between attitude intensity as it was influenced by amount per se of contact or experience--the results are given in Chapters 3 and 4.

Rosenberg considers the intensity component of an attitude as an action predictor (1960, p. 336) Carlson (1956, p. 259) found initial intense attitudes to be much more resistant to change than more moderately held attitudes. Guttman and Foa (1951) have shown that intensity of attitude is related to amount of social contact with the attitude object.

In considering the relationship between attitude and action, Rosenberg states that:

What is usually done is to follow a theoretical rule of thumb to the effect that the "stronger" the attitude the more likely it will be that the subject will take consistent action toward the attitudinal object. . . the more extreme the attitudes, the stronger must be the action-eliciting situation in which those forces are operative. . . improvement in the validity of estimates of attitude intensity will increase the likelihood of successful prediction (Rosenberg, 1960, p. 336).

Research suggests that intensity is also an important component of attitude structure in determining the "zero point" of a scale that differentiates the psychological "true" positive attitude direction from the "true" negative attitude direction. This may not be the same as the actual scale numbers (Foa, 1950a; Edwards, A., 1957; Guttman, 1950e, 1954i; Guttman and Foa, 1951g; Guttman and Suchman, 1947; Suchman and Guttman, 1947; Suchman, 1950).

Besides increasing predictability, attitude intensity can be used in locating the "true" zero point of a scale in which the area of content has been found to be scalable (Guttman and Suchman, 1947).

Locating a true zero point appears to have the highly desirable characteristic of elimination of question bias which often minimizes the value of cross-lingual studies (Foa, 1950; Guttman, 1954i; Suchman and Guttman, 1947).

Zetterberg (1963) reviewed the social contact consideration of Malawski and posited that the effects of frequency of social contact on liking or disliking are dependent on two variables: the cost of avoiding a particular contact and the availability of better alternative rewards. "If the costs of avoiding interaction are low, and if there are available alternative sources of reward, the more frequent the interaction, the greater the mutual liking" (Zetterberg, 1963, p. 13).

Allport, G. (1958, pp. 250-268), in examining various kinds of inter-group contact, concludes that "equal status contact" creates more favorable attitudes when the contact is in pursuit of common goals (p. 267). The effect of a casual contact is unpredictable but it may reinforce negative stereotypes (p. 252).

Jacobson, Kumata, and Gullahorn (1960, pp. 210-213) considered research related to inter-group contact that was primarily between cultures. They suggest that contact with persons of equal status is more likely to develop friction if the basis of the status equality is uncertain, because one group does not fully accept the other group as being equal in status position.

The following is a summary of the foregoing discussion of personal contact. Frequent contact with a person or group is likely to produce more favorable attitudes if the contact is:

1. Between status equals in pursuit of common goals, (Allport, G., 1958, p. 267).
2. Perceived as instrumental to the realization of a desired goal value (Rosenberg, 1960, p. 251).
3. With members of a higher status group (Allport, G., 1958, pp. 254, 261-262).
4. Among status equals and the basis of status is unquestioned (Jacobson et al., 1960, pp. 210-213).
5. Volitional (as interpreted from Zetterberg, 1963, p. 13).
6. Selected over other rewards (as interpreted from Zetterberg, 1963, p. 13).

ATTITUDES AND VALUES

This research considered values to be one of the primary determinants of attitudes. Consequently, previous research on this variable was extensively reviewed. In the determination of attitudes, values are accepted as an important source of prejudice or negative stereotype, (Allport, G.,

1958). According to Allport, "the most important categories a man has are his own personal set of values. He lives by and for his values... evidence and reason are ordinarily found to confirm with them... the very act of affirming our way of life often leads us to the brink of prejudice" (p. 24).

Katz relates attitudes and values by ascribing a "value-expressive function" (Katz, D., 1960, p. 178) to attitudes in which attitudes confirm and clarify for others, and for the person himself, those things which are most important and central to his image.

Since people are generally inclined to change or renounce attitudes appearing as inconsistent or unrelated to central values, Katz would expect a high degree of consistency between basic values (such as equality) and more specific attitudes (such as being favorable toward providing opportunities for the disabled).

Rosenberg (1956, 1960) points out an instrumental relationship between the positive and negative aspects of attitude and value. Stable positive attitudes are perceived as being instrumental to positive value attainment and the blocking of negative values. Rosenberg's analysis resulted in a broadening of the concept of attitude to include a positive-negative affective component and a belief component. Typically, attitudes have been concerned with the affective component while beliefs have usually been considered separately.

The position of Rosenberg is supported by his own research (1956) and that of Woodruff and DiVesta (1948) and Guttman (1950) who also prefers this broader concept of attitude, though, for primarily logical rather than experimental considerations.

VALUE VARIATION AMONG GROUPS AND NATIONS

For the purposes of this study, three types of societies may be considered: traditional, transitional, and modern; each representing a point along a continuum.

Values may vary among groups and nations, since the type of role behavior, preconceived to be important, may vary. Classical, sociological, and typological formulations of societies, as summarized by Loomis (1960) and Becker (1950), are stated in terms of social structure and value orientations.

Persons in a modern society are characterized as possessing values that are more affectively neutral, achievement and change oriented, more materialistic, instrumental, and universalistic than those held by persons in a traditional society. Latin American society can be described as traditional

and transitional and the United States as a modern society (Almond and Coleman, 1960; Loomis, 1960; Parsons and White, 1961; Williams, R., 1963, pp. 415-470). Japan may also be classified as a modern society as well as the Western European nations of this study (Norbeck, 1965). Yugoslavia would be classified as in a transitional state of development.

VARIATIONS IN MODERNITY AMONG GROUPS AND NATIONS

Smith and Inkeles (1966, p. 353) state that the term "modern" when used to describe a society "generally means a national state characterized by a complex of traits including urbanization, high levels of education, industrialization, extensive mechanization, high rates of social mobility, and the like." They further state that modernity, when applied to the individual, and we might add to the group, refers to "a set of attitudes, values, and ways of feeling or acting, presumably of the sort either generated by or required for effective participation in a modern society."

One of our research aims was to examine attitudes toward education and toward disabled persons in groups and nations at different levels of modernization. Hypotheses were developed to test such relationships. The results of such testing are given in Chapter 3.

THE KNOWLEDGE VARIABLE

Nelson, E. (1939) summarized the literature on attitudes and concluded that several factors affect the development of attitudes: intelligence, age, home influence, unemployment, majority opinion, group influence, and inter-stimulation, communities and geographic location, books, periodicals, and financial status. The studies reviewed were in fair agreement that "information seems to reduce prejudice and increase tolerance toward other races and toward such issues as the amount of freedom to be allowed children" (p. 425). Some of the studies (Nelson, 1939) contained evidence that "radical psychology, sociology, and other fields may actually modify certain student attitudes" (p. 426).

Haring, Stern, and Cruickshank (1958) reported that "increased knowledge per se was not found to be a significant factor in effecting modifications of teachers' attitudes toward exceptional children" (p. 130). On the other hand, these investigators found that a workshop designed to modify attitudes toward exceptional children was more effective when teachers had "classroom experiences with exceptional children concurrent with a workshop. . ." This particular finding suggests that an interaction. . . between information (knowledge) and experience, in relation to attitudes toward a

minority group, is possibly more crucial when the information presented to the subjects is designed to bring about a change in beliefs.

Haring, et al. (1958) report that, "By far the greatest amount of research reports the use of instruction in some form or another as a means for modifying attitudes" (p. 13). Some of the studies (Haring, et al., 1958) indicate that effectiveness of instruction in modifying attitudes depends upon the effort of the instructor to indoctrinate.

Knowledge of principles of educational psychology, child development, and child behavior were significantly related to teacher attitudes as measured on the Minnesota Teacher Attitude Inventory (MTAI) in a study conducted by LaBue (1959, p. 433). He states that to a great extent, "The attitudes of a person toward objects, persons, and processes have been shown to be dependent on the amount and quality of information he possesses with respect to them" (p. 433).

The knowledge variable was not included in the present research due to limitations of time, money, and the anticipated difficulty in establishing a knowledge scale that would have any semblance of cross-cultural comparability and validity. In the last chapter, however, the knowledge variable will be discussed as it relates to an ensuing research project.

RESEARCH OBJECTIVES

1. To test stated hypothesized relationships between the dependent criterion variables (attitudes toward education and toward disabled persons) and certain types of independent-predictor variables (i. e. value, contact, change orientation, institutional satisfaction, religiosity, and demographic variables). The independent variables will be looked at as correlates or determinants.¹
2. To compare attitudes of four groups in each of eleven nations. Analysis will be made of the groups within, between, and across nations.
3. To examine and compare attitude content and structure (i. e. component composition and level)² in each of the groups within, between, and across nations. Are there invariants either between groups within nations or between groups across nations?

¹Determinant implies causation only in the "time sense" developed by Cattell (1966, p. 24) "... what the scientist means by a cause is an invariable predecessor and it is to this definition of causality as invariable sequence that most philosophers have gravitated. However, this definition has to be operationally qualified as we have admitted plural, mutually substitutable, and jointly necessary causes... with the typical plurality of causes and effects, the relation will be statistical rather than absolute... "

²See Chapter 3 for discussion.

THE CONCEPTUAL APPROACH

The conceptual problem of the research rests in ascertaining relationships among attitudes, values, contacts, and designated demographic variables. All of these relationships are operationalized below. The crucial cross-cultural methodological problems were those of relevancy, equivalency, and measurement with the latter being subdivided into measurement problems concerned with content, structure, intensity, and comparability.

Relevancy

Education and physical disability were assumed to be relevant concepts in all the research countries, especially since the research population did not contain illiterate sectors.

Equivalency

The equivalence of input stimuli remains a persistent problem in social science research and is especially compounded when cross-national/cultural/linguistic groups are to be compared. This research is obviously cross-national. It is certainly also multilingual and in the opinion of the author is also cross-cultural since even the nations of Western Europe are judged to contain "real" cultural differences.

The problem of meaning equivalence is being studied extensively. Various authors have considered the hazards of meaning equivalence in cross-national studies (Jacobson and Schachter, 1954; Jacobson, et al., 1960; Klineberg, 1950; Suchman, 1958, 1962, 1964; UNESCO, 1955, 1963). A primary problem in cross-cultural studies is how to obtain comparable input stimuli, an aspect which may be subdivided into problems of translation and of availability of equivalent language terms and concepts (Jacobson, et al., 1960, pp. 218-263).

The problem of input equivalence of concepts in cross-national studies would appear to be an aspect of the general problem of question bias. Suchman (1950) has explored the use of the measurement of the intensity of feeling with which people hold to their attitudes or opinions as a way of surmounting differences due mainly to nuances of differences in question-wording or bias. The Israel Institute of Applied Social Research in using this approach to the study of "question bias" has commented: "In Israel where we sometimes have to do the same study in twelve different languages, it is essential to have a technique which does not depend on question wording (Guttman, 1954h p. 396).

Przeworski and Teune (1966-67, p. 553) argue that the critical problem in cross-national research is that of identifying "equivalent phenomena and analyzing the relationships between them in 'equivalent' fashion." They present methods for producing equivalence and present evidence that it can be achieved through use of a cross-national, identical set of indicators in combination with a set of nation-specific indicators.

Attitude Content and Structure

Operationally, content is represented by the attitude item statement. The concept(s) contained or implied in the statement constitute(s) that which the attitude item or scale measures. Unfortunately, methods to determine the content belonging in an attitude scale have not been highly developed. Later in this chapter Guttman facet theory will be presented as a method for determining such item content.

In practice, too often a research "pulls together" a set of attitude item statements, often without an explicit rationale for their selection, perhaps submits them to two or three judges, and then subjects them to blind factor analysis. The ensuing factors are then named. The factor analytic program, however, can only "rotate" that which it is given, i. e., the item statements. If major factors have been omitted or improperly represented, the factor analysis will still blindly turn out a "best" set of factors.

Most investigators arrange their variables on the basis of the empirical results rather than for conceptual reasons. One of the disadvantages of the a posteriori method is that the researcher is never sure of including the relevant or necessary variables. Facet theory provides a systematic definitional system of variables in terms of their component content. Facet theory provides a procedure for accepting variables on a theoretical basis rather than on the a posteriori one.

The content of the items of the attitude scales of this study appears to have been largely evolved via the a posteriori method, but in Chapter 3 the attitude scales will be subjected to Guttman facet analysis.

Comparability

If the problems of relevance, equivalence, and attitude content and structure have been resolved, the ensuing data units will likely be comparable. A UNESCO publication (1964) deals

extensively with comparability of data units, and Przeworski and Teune (1966-67) offer persuasive evidence that comparability can be attained.

The Intensity Scales

Suchman (1950) suggests that intensity of attitudes may be ascertained by asking a question about intensity immediately following a content question:

One form used for an intensity question is simply: "How strongly do you feel about this?" with answer categories of "Very strongly," "Fairly strongly" and "Not so strongly." Repeating such a question after each content question yields a series of intensity answers, these are scored and each respondent is given an intensity score (Suchman, 1950, p. 219).

This procedure was the one adopted to measure intensity of attitudes for both attitude scales: education and disabled persons. Four response categories were used instead of the three suggested by Suchman: "Very strongly," "Fairly strongly," "Not very strongly," and "Not strongly at all."

VARIABLES OF THE STUDY

The selection of variables was dictated primarily by theoretical considerations already reviewed. Well-established research tradition also indicated the selection of certain demographic variables.

The theoretically dictated variables were mainly those suspected to stand in some particular relationship to the criterion variables of attitudes toward education and toward the disabled. Other variables were included, however, to provide the information about the characteristics of the four groups of respondents: (a) education personnel, (b) those who work with the disabled, (c) managers, and (d) laborers. These variables were mobility, personalism, institutional satisfaction, religiosity, and change orientation. The major variables used in the study are discussed in this section. The complete list of variables is contained in Appendix C.1.

Attitudes Toward Education

The Attitudes Toward Education scale, developed by Kerlinger (Kerlinger, 1958, 1961, 1967; Kerlinger and Kaya, 1959d), was used as the criterion instrument. The scale has been found to hold up under cross-validation: there is, however, no indication that persons of lower educational attainment have been adequately represented in the studies. An examination of the items (Appendix B.1) suggests that some of them may be overly complex and difficult for many people. The complete

instrument consists of 20 items, of which 10 are "progressive," and 10 are "traditional." As employed in the present study, the progressive and traditional items were analyzed independently as two separate scales.

Attitudes Toward Disabled Persons

The measure used for ascertaining attitudes toward physical disability was the Attitudes Toward Disabled Persons (ATDP) scale (Yuker, et al., 1960; Yuker, Block, Young, 1966). Adequate test-retest reliability scores were reported and various construct validity measures were presented. Although the validating group has questionable generality and the rationale for item selection is not clear, the test represents an attempt to fill a gap in the field and deserves further study. When the present study was designed it seemed to be the best instrument available to measure attitudes toward disability. The ATDP scale is submitted to Guttman facet theory analysis in Chapter 3.

Modification was made in the provisions for respondent scoring. The Likert-type format was retained, but the response categories for each item were reduced from seven to four. A further modification was that instead of requiring the respondent to transfer a number from a set of coded categories at the top of the page to indicate his response the item alternatives were stated following each question (Appendix B.4). It was felt that these modifications would simplify the task for the respondent.

Fifteen of the 20 attitude items are statements of differences between disabled persons and those not disabled, and agreement with those statements is interpreted as reflecting an unfavorable attitude. The other five items were "reversed" in the scoring process; thus, a higher score reflects a negative attitude.

The Value Variable

Various models have been developed to explain and illustrate the content of one's value structure. One of the earliest formulations was Spranger's (1928) intuitive classification of men into six general types in an attempt to describe several distinct behavior patterns. He asserted that man can be understood best through a study of his personal values. The six basic values (they may be also called interests or motives) which Spranger used to describe types of men are: theoretical, economic, aesthetic, social, political, and religious.

Allport, Vernon, and Lindsey (1951) attempted to study the six values empirically by constructing the Study of Values, a scale based directly on Spranger's Types of Men (1928).

In agreement with Spranger and Allport, G., et al., Gordon, L., (1960, p. 3) asserts that "a person's motivational patterns or the values he holds" are important in personality assessment.

Gordon's attempt to measure values resulted in a six scale instrument (Survey of Interpersonal Values--SIV, Appendix B.2) which was developed through the use of factor analysis. The six scales are described as follows:

Support: Being treated with understanding, receiving encouragement from other people, being treated with kindness and consideration.

Conformity: Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist.

Recognition: Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition.

Independence: Having the right to do whatever one wants to do, being free to make one's own decisions, being able to do things in one's own way.

Benevolence: Doing things for other people, sharing with others, helping the unfortunate, being generous.

Leadership: Being in charge of other people, having authority over others, being in a position of leadership or power (Gordon, L., 1960, p. 3).

In a study designed to determine the relationship existing between the Study of Values and Gordon's SIV scale the inter-correlations indicated that the two scales moderately overlap in what they measure, and the relationships appear to be quite reasonable (Gordon, L., 1960, p. 7). The theoretical is positively correlated with Leadership and Independence (.42 and .36 respectively). Other positive correlations are Economic with Recognition (.29); Social with Benevolence and Conformity (.52 and .37). The Gordon scale was used in the present study as a measure of asset (Benevolence) and comparative values (Recognition and Leadership).

In selecting the SIV scale two factors were considered. First, an instrument was needed which would yield scores on items that seemed logically related to the values in the hypotheses of this study, namely, those of "asset" orientation to others, and "comparative" orientation to others.

A second consideration for selecting the SIV was the validity of the scale in a different cultural application than the one for which it was designed. Translations in French and Japanese yielded scores consistent with expectations for known groups (Gordon, L., 1963, pp. 17-21). The forced-choice format of the instrument may be less sensitive to subtle shifts in item-meaning resul-

ting from translation than a format in which each item is separately responded to as "agree" or "disagree," or on a Likert-type format. It was expected, though, that some estimate of validity would be obtained through confirmation of predictions about the values of known groups used in the study (predictive validity), and from expected relationships between other scores (concurrent validity). Chapter 3 indicates this to be so.

Personal Contact with Education and with Disabled Persons

Personal contact with education was measured by four items in the Personal Questionnaire¹ (PQ: 1-4; Appendix B. 3) and contact with disabled persons by nine items (PQ-HP: 1-9; Appendix B. 5). Each item produced a score. Single item scores are notoriously unstable, and no reliability data can be offered.

There is some evidence of the predictive validity of some of the items in respect to expectancies that known groups should respond in certain ways. For example, it was expected that persons working in special education and rehabilitation (SER) would report a higher frequency of contact with disabled persons than would persons not working in the field of disability. This was the case in Costa Rica (Felty, 1965), and might be considered an item validation.

Preference for Personal Relations

This set of three items (PQ: 21-23) was devised to help identify respondents, or groups of respondents, along a traditional-modern dimension. The predominance of affective relationships as opposed to affectively neutral relationships is supposedly one of the distinguishing characteristics of the "Gemeinschaft," or traditional, orientation (Loomis, 1960, p. 61).

Religiosity

Three questions (PQ: 19, 20, 38) were oriented toward religion: (a) religious preference, (b) importance of religion to the respondent, and (c) the degree of adherence to the laws, codes, or dictates of his religion. Religiosity also relates to the traditional-modern continuum, with higher scores among the lower income group, and among persons with low education.

¹Throughout this report PQ will refer to Personal Questionnaire and PQ-HP will refer to Personal Questionnaire: Handicapped (Disabled) Persons.

Institutional Satisfaction

This set of nine questions (PQ: 31A-31I) was adapted from Hyman (1955, p. 400). The institutions (schools, business, labor, government, health service, churches) were listed and the respondents were requested to indicate whether they were judged to be excellent, good, fair, or poor in doing their particular job in the community. It was postulated that the SER¹ group would be less satisfied with institutions generally than other groups. Persons with high education in relation to income might also be expected to be less satisfied with institutions than others.

Change Orientation

This set of six questions (PQ: 39-43,47) was adapted from Programa Interamericano de Información Popular in San José, Costa Rica. The respondents were asked to react to a number of statements which purported to reflect attitudes toward change in such areas as fluoridation, child rearing practices, birth control, automation, political leadership, and self change.

Demographic Variables

In the PQ respondents were asked to indicate their placement on several variables often found to be of significance in social-psychological analysis. These were levels of education (26, 27), occupation (37), rental payments (30), age (8), sex (face sheet), marital status (12), number of children (13), number of siblings (16, 17), home ownership (29), occupational and residential mobility (10, 11, 32-36), and youth urbanity setting (9).

HYPOTHESES OF THE STUDY

Descriptors

Some of the variables of this study were used as parameter descriptors while others were used in the formulation of specific hypotheses. For purposes of clarity, hypotheses are stated in the research form although the statistical analyses employ the usual null form.

¹The four sample groups are identified as follows:
SER--Special Education and Rehabilitation workers
E--Elementary and Secondary teachers
M--Managers and Executives
L--Labor: white and blue collar workers

Relating Attitudes and Values

- H-1: Persons who score high in need for power and control over others will score (a) low in progressive attitudes toward education, (b) high in traditional attitudes toward education, and (c) low in positive attitudes toward disabled persons.
- H-2: Persons who score high in need for recognition and achievement will score (a) low in progressive attitudes toward education (b) high in traditional attitudes toward education, and (c) low in positive attitudes toward disabled persons.
- H-3: Persons who score high in the need to help others, to be generous, will score (a) high in progressive attitudes toward education, (b) low in traditional attitudes toward education, and (c) high in positive attitudes toward disabled persons.

Relating Attitudes, Values, and Sex

- H-4: Women within and across nations will score higher than men in (a) the need to help others, (b) progressive attitudes toward education, and (c) positive attitudes toward disabled persons.

Relating Attitudes and Contact

- H-5: The more frequent the contact with education or with disabled persons the higher will be the scores on the intensity statements of the (a) PATE, (b) TATE, and (c) ATDP scales, regardless of the positiveness or negativity of the attitude content.
- H-6: High frequency of contact with education or with disabled persons will be associated with favorable attitudes toward (a) progressive education, (b) traditional education, or (c) disabled persons if high frequency is concurrent with (a) alternative rewarding opportunities and (b) enjoyment of the contact.

Relating Attitudes and Change Orientation

- H-7: Persons who score high on change orientation will score (a) high on progressive attitudes toward education, (b) low on traditional attitudes toward education, and (c) high on positive attitudes toward disabled persons.

Relating Attitudes and Institutional Satisfaction

- H-8: Persons who score high on satisfaction with the performance of "designated" social institutions will score (a) low on progressive education, (b) high on traditional education, and (c) low on positive attitudes toward disabled persons.

Relating Attitudes and Religiosity

- H-9: Persons who score high on religiosity will score (a) low on progressive education, (b) high on traditional education, and (c) low on positive attitudes toward disabled persons.

Relating Attitudes and Group Membership

- H-10: The SER group, within and across nations, will have more positive attitudes (i. e. lower scores) toward disabled persons than will persons in other occupational groups.
- H-11: The SER group, within and across nations, will have a higher mean score on progressive attitudes toward education than will persons in other occupational groups.
- H-12: The SER group, within and across nations, will have a lower mean score on traditional attitudes toward education than will persons in other occupational groups.
- H-13: The SER group, within and across nations, will have higher mean scores than will persons in other occupational categories in respect to the values of (a) Benevolence and (b) lower mean scores in respect to the values of Leadership (i. e. dominance) and (c) Recognition.
- H-14: The SER group, within and across nations, will have higher mean scores than will other occupational groups on the following change orientation measures: (a) fluoridation, (b) child rearing practices, (c) automation, (d) self-change, and (e) lower scores on birth control¹ practices.

Relating Attitudes and Modernization Level

- H-15: Attitudes toward (a) progressive education and toward (b) disabled persons will be more positive as one moves from low to high on the socio-economic educational continuum of national development.
- H-16: Attitudes will be more positive and cross-culturally invariate in areas relating to technology and less positive in areas perceived as related to potential changes in social structure or moral-ethical-familial aspects.

Relating Attitudes and Multidimensionality

- H-17: Attitudes toward education and toward disabled persons will exhibit a multi-dimensional structure when analyzed by the Guttman-Lingoes Multiple Scalogram (MSA I) procedure.

TECHNICAL AND PROCEDURAL ASPECTS

Research Design

The experimental treatment in the cross-national analysis is considered to be the national culture in which the individual finds himself. As with Whiting (1954, p. 525) it is assumed that "customs (and attitudes) of a society are truly comparable to the habits of an individual," and further that customs (and attitudes) can be compared from one society to another.

¹Low scores indicate in-favor-of.

The research method implicit in the present research is the Galton-Spearman vs. the Wundt-Pavlov laboratory, bivariate, or manipulative approach. As developed more fully by Cattell (1966, p. 18), "actual scientific research is an inductive-hypothetic-deductive (IHD) spiral, in which a good array of alternative hypotheses are in constant development." The present research emphasized hypothesis testing aspects but also postulated that multivariate analysis procedures will permit and facilitate examination of relationships between variables that are not possible in the Wundt-Pavlov bivariate approach.

Most aspects of the present research are of the multivariate naturalistic-sequential design; Cattell's (1966, p. 31) type number 10--m f d u r n, with some aspects being design type number 8--m f d u a k. Reference to Table 1 indicates the meaning of these phonetic reference labels.

In summary, the present research on the content, structure, and determinants of cross-cultural attitudes toward education and toward disabled persons is based on the inductive-hypothetic-deductive research method, Cattell's (1966, p. 31) design number 10, and is critically reviewed via the Guttman relational analysis method (Guttman facet theory) contained in Figures 1, 2, 4, 6, 8, and 9.

Sample Selection

It was intended to sample four groups in each of eleven nations.¹ However, for various reasons it was either impossible to secure certain groups in a specific nation, or the sample was too small for analysis purposes.

Belgium is omitted from certain comparisons since the sex designation was inadvertently omitted from the questionnaires in the duplication process. The use of two-way analysis procedures to control for sex made it impossible to use Belgium in some of the cross-national comparisons. However, the Belgian data were analyzed fully by Kreider (1967) on all of the within nation comparisons. The total sample is detailed in Table 2.

In summary, the sample was composed of four groups and was selected as follows:

1. The Education (E) group. The local research director was instructed to select two or three representative schools and to administer the instruments to all teachers in the school selected.

¹Data has also been gathered in Tel Aviv, Israel, but was not analyzed in time for the present report--Project Director, Dr. E. Chigier.

TABLE 1 The Six Basic Dimensions of Research Design¹

Symbol for Dimension	Parameter Title	Polar Dichotomy	Polar Notation
N	Number of Variables	Multivariate to Bivariate	m - b
M	Manipulation	Interfered with (Manipulated) to Freely Occurring	i - f
T	Time Reaction	Dated to Simultaneous Observation	d - s
C	Situational Control	Controlled (Held Constant) to Uncontrolled	c - u
R	Representativeness of Relatives (choice of variables)	Abstractive to Representative	a - r
D	Distribution of Referees (Population Sampling)	Keyed to a biased sample (selected or "unrepresentative" to Normal or true)	k - n

¹See Cattell, 1966, p. 28.

2. The Special Education and Rehabilitation (SER) group. All special schools and rehabilitation facilities were identified. The local research director was responsible for selecting representative institutions from which to secure the sample.
3. The Managerial/Executive (M) group. The local research director was instructed to consult with the equivalent of a United States local Chamber of Commerce in designating the representative industries from which to select the sample.
4. The Laborer--white and blue collar--(L) group. These respondents were to be selected from the industries represented in M, above.

The nations were chosen to represent points on the socio-economic-educational continuum of development. Procedures were used to rank (Table 25) the countries on such variables as: (a) economic development, (b) literacy, (c) newsprint consumption, and (d) related indices. Relationships between the psychological and the "development" variables are examined in Chapters 3 and 4.

The groups were chosen for their functional involvement with education and with disabled persons: (a) teachers--it is assumed the attitudes they hold influence the educational process; (b) SER group--it was hypothesized that they are the innovators within education and in the care of the disabled; (c) managers--it was postulated that they exert heavy influence on policy and finance in the educational-vocational system in any nation; and (d) laborers--chosen to represent the major consumer within the educational endeavor and the co-workers of the disabled.

Counterpart Personnel

Local professional people in each nation (Appendix D) were used as research counterparts. They were primarily responsible for four aspects of the study in their own nations: (a) translation of the instruments of the study, (b) sample selection, (c) administration of the instruments to the respondents, and (d) mailing of the completed instruments to the project director at Michigan State University. Some of them, also, were involved in the early stages of the project in ascertaining the nature of the research problem and the variables to be studied.

Administration Procedures

A standard set of procedures (Appendix C.2) was devised as a guide for each nation. This assisted in securing uniformity of procedures and should increase reliability. No difficulties were reported in the use of the procedures.

Data Collection, Preparation, and Scoring

From all nations except Japan the completed instruments were shipped to Michigan State University for processing. In Japan the answers of the respondents were transcribed to a single data sheet, and these were mailed to M. S. U. Since all questions but two were precoded, no scoring judgments were required; thus, data representativeness was not affected. The two open-ended questions were translated into English by the Japanese director and transmitted in toto.

The data were scored according to detailed instructions (Code Book Appendix C. 4) and recorded on data transcription sheets for IBM card punching.

Computer Data Processing

The code book contained specific instructions for scoring each category of every item for all scales and instruments of the study. Since some changes were made in each nation, a special instruction sheet (Appendix C. 5) for each nation was devised to direct the scoring process.

The Michigan State University Control Data Corporation 3600 digital computer (CDC 3600) was used for all data analysis except some of the multivariate analysis which was done on the CDC Computer at the Hebrew University in Jerusalem, Israel.

MEASUREMENT PROCEDURES

Statistical Analysis

A description of the usual statistical procedures employed in this study is presented in Appendix E. Descriptive, correlational, and mean differences analysis procedures were used extensively. Multidimensional statistical procedures were also employed as described in the following section.

Guttman Multidimensional Analysis

Although this study was not originally designed according to facet theory (Guttman, 1957k), nor were the instruments devised via Guttman scaling principles (Guttman, 1954j), both of these procedures were used in data analysis. The facetization of the education scale is presented in Figures 4 and 5. The facet analysis of the structure and content of the disabled persons scale is presented in Figures 6 and 7.

The MSA I (Lingoes, 1966b) analysis of the data is presented in Chapter 3. The MSA I is the most general of all the Guttman-Lingoes series. It maintains all the original data at the category level instead of dealing with it at the item or variable level.

If the researcher postulates (or hopes) that attitudes are unidimensional in nature, he looks for appropriate measuring procedures and approaches. If he further postulates (or hopes) that the dimensionality can be expressed metrically, he is also influenced in certain analysis and/or statistical directions.

The assumption and/or postulate of the present research is that attitudes are multidimensional (i. e. multivariate) and that present metrically (parametric) based statistical procedures are at least suspect and need to be supplemented (and perhaps replaced) by multivariate, non-metric (non-parametric) analysis procedures.

Multivariate experimental results lead more quickly to the realistic shaping of a scientific concept to the whole realm of data. The automatically broader sweep in multivariate studies is a built-in corrective for parochialism of thought--particularly that of the Wundt-Pavlov type. The rapid growth of computer size and complex programs for data analysis is already obviating the earlier resistance to the magnitude of the multivariate approach.

Multivariate methods are now recognized as indispensable at the first exploratory stages of research, to ascertain the relevant variables and concepts and the valid ways of measuring them. However, multivariate methods also belong to the very last (and to some extent the applied) stages in research, since they permit a more comprehensive evaluation of the relative, comparative, and/or differential importance of the totality of concepts or variables contained in the total problem.

Facet theory (Guttman, 1957; Guttman and Schlesinger, 1966) illustrates the multivariate approach to theory construction and data analysis. Facet theory was used in the latter stages of this research and will be discussed more fully in the last chapter. Non-metric (non-parametric) analysis procedures, in conjunction with standard procedures such as "analysis of variance," were used in data analysis. Facet design can be regarded as a "definitive relational system" (a semantic space) among the variables or concepts of the study whereas non-metric procedures may be regarded as a way of checking on the statistical structure--i. e. , to determine if the statistical structure (e. g. data matrix) fits that projected by the semantic or definitional structure implied or inherent in the facetization (operationally, in the Mapping Sentence).

CHAPTER 3

RESULTS OF THE STUDY

The basic data for the analysis presented in this chapter are contained in Tables A. 1-8 in Appendix A. The data from all other tables are derived from the raw data represented in these eight tables. Tables A. 1, 3, 5, and 7 contain the sample size, means, and adjusted means¹ for 45 variables² for each of the four sample groups in each of the ten nations of the study. In Belgium the adjusted mean accounts for sex composition of the samples and sex designation was inadvertently omitted, therefore, this country was not included in these tables.

Tables A. 2, 4, 6, and 8 contain the actual F test results³ for all permutation of nations and sex within a sample group. For example, Table A. 2 indicates (row 1) that the SER group differs significantly (.005) on attitudes toward disabled persons across nations, that males and females do not differ, and that the United States and Costa Rica samples differ significantly from all other nations and from each other as well. Other nations in row one (i. e. variable no. 1, HP content) of Table A. 2 also differ from each other. Tables A. 9-69 contain the correlations between the 45 variables of the study for all sample groups in all eleven nations. The data in the tables of this chapter are drawn from these more extensive tables in Appendix A.

This chapter contains one kind of data analysis: characteristics of the sample such as age and amount of education and the results of specific hypothesis testing. In the conclusion section of Chapter 4 the data will be discussed at the "variable," "national," and "cross-cultural" level. All of the hypotheses are summarized in Table 30, which together with Tables A. 2, 4, 6, and 8 in Appendix A permits one to (a) examine the theoretical relationships between the variables of this study, i. e., the hypotheses; (b) assess the differentiating effectiveness of variables within, between, and across nations, and (c) ascertain which national groups (i. e. SER, E, M, L) are most or least alike on each of the 45 variables. It should be noted that we do not attempt to compare nations but rather we compare

¹See Chapter 2 for basis of adjusted means.

²See Appendix C for complete variable list and names of those used in Tables A. 1-8.

³"Actual" significance levels (F ratios) are presented, however, a level of $P < .05$ is required for acceptance or rejection of the null hypothesis.

occupational groups within, between, and across nations.

DESCRIPTIVE DATA

The sample of the study is presented in Table 2. Close inspection of the table indicates the sex-linked nature of some of the groups--the uneven sex distribution of groups--both within and between nations; the small sample in certain nations and the omission of samples in some nations. The sex-linkage and small-sample-problems are dealt with as appropriately as possible in each hypothesis and are indicated in each instance.

Methods of sample selection (see Chapter 2) indicate that the SER sample is most representative, followed respectively by the E sample, the M sample, and the L sample. It is postulated that the SER, E, and M samples are representative enough to make at least guarded inferences to the universe from which they were drawn. The samples are of acceptable size except in England. The problem of sampling in cross-cultural research is discussed in the last chapter.

Some of the data has been previously analyzed by several investigators (Cessna, 1967; Dickie, 1967; Felty, 1965; Friesen, 1966; Kreider, 1967) who were part of the research team. Various research reports have also used portions of the data (Felty, 1964; Jordan, 1967; Jordan and Friesen, 1968; Robaye and Jordan, 1968; Stump, Jordan and Friesen, 1967).

The analysis contained in this chapter, however, presents for the first time the results of the entire eleven nation study. Examination of the entire list of variables (Appendix C. 1 and C. 6) indicates the extensive amount of data that has not been analyzed. It is projected that a series of research reports (Robaye and Jordan, 1968; Cessna, Takasa, and Jordan, 1968) will be written and published locally in each of the nations of the study. They will deal with issues of particular relevance to that nation.

Differences in Age and Education Within and Between Nations

The data for age and education are presented in Tables 3 and 4. Table 5 gives an interpretation of the education scores in terms of actual educational attainment. The education data are presented such that each score represents a range: i. e. grades completed. While the intervals are unequal they are at least ordinal, in that a higher mean score always represents higher educational attainment.

TABLE 2 Distribution¹ of Respondents According to Sex and Occupational Group in Eleven Nations.

No.	Nation	Occupational Groups ²								Totals		Total
		SER		E		M		L		M	F	
		M	F	M	F	M	F	M	F	M	F	
1.	United States	22	83	36	65	59	41	65	20	182	209	391
2.	Costa Rica	14	50	33	82	43	5	37	12	127	149	276
3.	Colombia	20	47	28	100	--	--	46	--	94	147	241
4.	Peru	26	12	142	112	85	10	--	--	253	134	387
5.	England	7	15	14	10	17	1	--	--	38	26	64
6.	Holland	18	33	25	36	55	3	32	30	130	102	232
7.	France	28	41	31	37	18	31	10	27	87	136	223
8.	Yugoslavia	16	31	19	21	35	11	34	25	104	88	192
9.	Denmark	21	23	25	22	30	--	17	11	93	56	149
10.	Japan	16	34	8	33	14	22	75	9	113	98	211
11.	Belgium ³		28		51		20		28	---	---	127
Total (minus Belgium)		188	369	361	518	356	124	316	134	1,221	1,145	2,366
Total (plus Belgium)			585		930		500		478			2,493

¹In some instances the N's do not agree exactly between the tables throughout this report. This is due to problems of missing data but statistics are based on actual N's.

²In all tables the groups are:

- SER = Special education and rehabilitation personnel
- E = Education personnel
- M = Managers/Executives
- L = Laborers: blue and white collar

³Totals only - sex designation inadvertently omitted in Belgium.

TABLE 3 Comparison of Means and F Statistics¹ on Age for Four Occupational Groups Within and Between Eleven Nations

No.	Nation	Means				Sig. of Within Nation <u>F</u>	Duncan's Multiple Means Test ⁴
		SER	E	M	L		
1.	United States	36.50 ²	37.64 ²	37.37	27.01	.005 ²	M>L, E>L SER>L
2.	Costa Rica	31.00 ²	32.35 ²	36.19	32.15	.06 ²	-----
3.	Colombia	29.17 ²	31.32 ²	-----	17.90	.005 ²	E>L, SER>L
4.	Peru	26.23 ²	35.18 ²	31.08	-----	.02 ²	M>L
5.	England	41.65 ²	36.50 ²	43.78	-----	.01 ²	SER>E, M>E
6.	Holland	31.58 ²	34.49 ²	42.87	32.23	.005 ²	M>SER, M>E M>L
7.	France	33.01 ²	30.28 ²	37.04	39.40	.005 ²	M>SER, L>SER M>E, L>E
8.	Yugoslavia	37.36 ²	35.13 ²	32.02	28.00	.005 ²	SER>M, SER>L E>M, E>L
9.	Denmark	35.79 ²	34.47 ²	45.57	37.14	.005 ²	M>SER, M>E M>L
10.	Japan	35.68 ²	41.41 ²	34.71	28.33	.005 ²	E>M, E>L, M>L E>SER, SER>L
11.	Belgium ¹	33.43	32.69	41.75	38.07	.01 ¹	M>SER, M>E
Between Nation Group <u>F</u> Sig.		.005 ²	.005 ²	.005 ³	.005 ²	---	-----
Between Nation Sex <u>F</u> Sig.		.01 ²	.85 ²	---	---	---	-----

¹Controlling for sample size but not sex since it was inadvertently omitted in Belgium.

²Controlling for sex and sample size within and between nations: based on an "adjusted" mean. See Tables 1-8, Appendix A.

³Controlling for sample size but not sex since few females in group.

⁴p < .05 and controlling for sex and sample size.

TABLE 4 Comparison of Means and F Statistics on Amount¹ of Education for Four Occupational Groups Within and Between Eleven Nations

No.	Nation	Means				Sig. of Within Nation <u>F</u>	Duncan's Multiple Means Test ⁶
		SER	E	M	L		
1.	United States	6.84	6.86	5.78	5.03	.005 ⁴	E>L, E>M SER>L, M>L
2.	Costa Rica	5.94	5.76	5.39	2.76	.005 ⁴	SER>L, E>L M>L
3.	Colombia	5.59	4.56	----	2.71	.005 ⁴	SER>L
4.	Peru	4.85	6.33	6.08	----	.005 ⁴	SER>E
5.	England	5.59	6.12	4.50	----	.005 ⁴	SER>M, E>M
6.	Holland	5.46	5.71	5.16	3.86	.005 ⁴	SER>L, E>M E>L, M>L
7.	France	5.23	5.36	6.08	4.73	.005 ⁴	M>SER, M>E E>L, M>L
8.	Yugoslavia	4.83	5.06	4.63	3.40	.005 ⁴	SER>L, E>L M>L
9.	Denmark	5.11	5.28	4.70	3.86	.005 ⁴	SER>M, SER>L
10.	Japan	5.32	6.00	5.65	4.69	.005 ⁴	E>M, E>L, E>SER SER>M, SER>L, L>M
11.	Belgium ³	5.57	6.08	6.30	4.78	.005 ³	SER>L, E>L, M>L
Between Nation Group <u>F</u> Sig.		.005 ²	.005 ²	.005 ⁵	.005 ⁵	----	-----
Between Nation Sex <u>F</u> Sig.		.08 ²	.02 ²	---	---	----	-----

¹See Table 5 for interpretation of codes for amount of education.

²Controlling for sex and sample size within and between nations: based on an "adjusted" mean. See Tables 1-8, Appendix A.

³Controlling for sample size but not sex since it was inadvertently omitted in Belgium.

⁴Controlling for sex and sample size.

⁵Controlling for sample size but not sex since few females in group.

⁶p < .05 and controlling for sex and sample size.

TABLE 5 Interpretation of Education Scores in Terms of Actual Educational Attainment

Score	Interpretation	Range of Interval
1	Less than 4 years completed	0 - 3 inclusive
2	From 4 to 6 years completed	4 - 6 inclusive
3	From 7 to 9 years completed	7 - 9 inclusive
4	From 10 to 12 years completed	10 - 12 inclusive
5	Some college or university	13 - 15 inclusive
6	College or university degree	16
7	Post-degree study	-----
8	Advanced degree	-----

ATTITUDES TOWARD EDUCATION

- ¹United States Education Scale
- ²Costa Rica Escala de Educacion
- ³Colombia Escala de Educacion
- ⁴Peru Escala de Educacion
- ⁵England Education Scale
- ⁶Holland Ondercuijs Schaal
- ⁷France Evaluation de L'Enseignement
- ⁸Yugoslavia Problemi Obrazovanja
- ⁹Denmark Uddannelse
- ¹⁰Japan 日本の教育態度の調査結果を基に作成された。
- ¹¹Belgium Problemes Educatifs
- ¹²Israel (*)

Significant differences in age (Table 3) exist within and between all nations among the four sample groups. The M group tends to be the oldest and the L group the youngest. The E and SER groups tend to be intermediate. In Japan the M group is younger than the SER and E groups. The age ranks lend support to the hypothesis that the mean age of certain occupational groups increase in relation to the level of technology of a nation; the higher the technology, the more education and training required for occupational entry--thus, an increase in the mean age of that occupational group.

The L group is lowest in educational attainment in each nation (Table 4) with the E group being highest in most nations. However, in many nations (e. g. Peru) the SER group contained a number of service or matron type professionals with low education. If the special education teachers were par-tialed out as a separate group within the SER group, it is likely that they would be the highest in educa-tional attainment in most, if not all, nations. It has long been the observations of the author that spe-cial education teachers are more innovative and open to curricular adaptations than regular teachers. The analysis of Mader (1966) and Green (1967) support this position.

HYPOTHESIS TESTING: MEAN DIFFERENCE AND CORRELATION ANALYSIS

Relating Attitudes and Values

H-1 & H-2: Persons who score high in need for power and control over others or in need for recognition and achievement will tend to score (a) low in progressive attitudes toward education (b) high in traditional attitudes toward education, and (c) low (high ATDP scores) in positive attitudes toward disabled persons.¹

The need for power and control was measured by the Gordon² L and R scales, PATE³ and TATE⁴ by the Kerlinger scale, and attitudes toward the disabled by the ATDP⁵ scale. The data are presented in Tables 6 and 7.

¹For the purpose of clarity, none of the hypotheses in the research are stated in the null form. However, in the statistical analysis it is the null form which was tested. The .05 level of statistical significance was established as necessary for an hypothesis to be accepted.

²Leadership = L; Recognition = R. See Chapter 2 and Appendix B.

³PATE = Progressive Attitudes Toward Education. See Chapter 2 and Appendix B.1.

⁴TATE = Traditional Attitudes Toward Education. See Chapter 2 and Appendix B.1.

⁵ATDP = Attitudes Toward Disabled Persons. See Chapter 2 and Appendix B.4.

The hypothesis for L and PATE (H-1a) value was supported only in Peru, Yugoslavia, and Belgium--i. e., traditional to transitional cultures. In these nations those who scored low in the need to control others did score higher on PATE. The hypothesis for L and TATE values (H-1b) was not supported in any nation but was statistically significant in Japan in the reverse direction from that hypothesized. Perhaps in Japan, with its rapid shift to western modernity, it is culturally appropriate for everyone to score high on leadership but those who still accept the old traditional attitudes reject the leadership value and cling to respect for authority. The hypothesis for L and ATDP (H-1c) was not supported in any nation.

The hypothesis for R and PATE (H-2a) was supported only in Holland where those who scored low on the need for recognition did score significantly higher on progressive attitudes. The hypothesis for R and TATE (H-2b) was supported only in England where high need for recognition was concurrent with high traditional attitudes. The hypothesis for R and ATDP (H-2c) was supported only in Colombia where need for recognition occurred jointly with low positive (high ATDP scores) attitudes toward the disabled.

H-3: Persons who score high in the need to help others, to be generous, will score (a) high in progressive attitudes toward education, (b) low in traditional attitudes toward education, and (c) high (low ATDP scores) in positive attitudes toward disabled persons.

The need to help others was measured by the Gordon B¹ scale; PATE, TATE, and ATDP as described in Hypothesis 1. The data for Hypothesis 3 are presented in Table 8.

The hypothesis for B and PATE (H-3a) was not supported in any nation but was statistically significant in Peru in the reverse direction from that hypothesized. In other words, in Peru, high benevolence was concurrent with low progressive attitudes toward education. Perhaps benevolence is qualitatively² different in a traditional culture like Peru. This is discussed more fully in Chapter 4. The hypothesis for B and TATE (H-3b) was not supported in any nation.

The hypothesis for B and ATDP (H-3c) was supported (Table 8) in the United States sample where high benevolence was concurrent with high positive attitudes toward the disabled. Is the hypothesis culture-bound to the United States (i. e. where the "asset" hypothesis was developed

¹Benevolence = B. See Chapter 2 and Appendix B. 2.

²See Lerner (1961) for a discussion of the quality-quantity concept in social science.

TABLE 6 Means and F¹ Statistics Comparing High and Low Scores Within Nations on Leadership

Value Scores With Attitudes Toward Education and Toward Disabled Persons in Eleven Nations

	"L" Value ⁶	N				Mean				F				Sig. of F							
		PATE ³	TATE ⁴	ATDP ²	N	PATE	TATE	ATDP	Mean	PATE	TATE	ATDP	Mean	PATE	TATE	ATDP	Mean	PATE	TATE	ATDP	
1. United States	Low (6-) High (18+)	108 100	108 100	107 100	108 100	30.05 30.21	27.41 27.52	45.64 45.66	0.12	0.08	0.00	27.41 27.52	0.12	0.08	0.00	45.64 45.66	0.73	0.77	0.73	0.77	0.93
2. Costa Rica ²	Low (8-) High (14+)	85 83	85 83	86 85	85 83	31.69 31.71	28.71 28.47	38.69 ² 39.53	0.00	0.09	0.92	28.71 28.47	0.00	0.09	0.92	38.69 ² 39.53	0.93	0.75	0.93	0.75	0.34
3. Colombia	Low (11-) High (17+)	54 50	53 52	54 55	53 52	30.67 29.96	28.70 29.98	49.98 50.18	0.83	0.13	0.02	28.70 29.98	0.83	0.13	0.02	49.98 50.18	0.37	0.72	0.37	0.72	0.86
4. Peru	Low (9-) High (18+)	85 69	85 69	66 61	85 69	31.42 29.58	29.97 30.79	50.50 48.64	11.74	1.10	2.40	29.97 30.79	11.74	1.10	2.40	50.50 48.64	0.001	0.29	0.001	0.29	0.12
5. England	Low (13-) High (18+)	23 22	23 22	23 22	23 22	31.52 31.04	24.74 24.95	43.52 46.68	0.25	0.02	0.67	24.74 24.95	0.25	0.02	0.67	43.52 46.68	0.62	0.87	0.62	0.87	0.42
6. Holland	Low (12-) High (18+)	77 76	78 76	78 74	78 76	30.73 30.55	29.22 28.72	48.34 48.19	0.09	0.84	0.07	29.22 28.72	0.09	0.84	0.07	48.34 48.19	0.76	0.36	0.76	0.36	0.78
7. France	Low (9-) High (16+)	48 63	49 63	47 61	49 63	30.17 31.32	29.63 29.87	48.96 50.15	1.73	0.10	0.87	29.63 29.87	1.73	0.10	0.87	48.96 50.15	0.19	0.75	0.19	0.75	0.36
8. Yugoslavia	Low (7-) High (13+)	60 57	60 56	59 54	60 56	33.48 31.95	32.38 32.16	52.25 53.46	6.87	0.17	1.39	32.38 32.16	6.87	0.17	1.39	52.25 53.46	0.01	0.69	0.01	0.69	0.24
9. Denmark	Low (9-) High (12+)	44 38	44 38	44 38	44 38	33.64 33.84	28.11 27.21	46.70 48.66	0.09	0.63	1.65	28.11 27.21	0.09	0.63	1.65	46.70 48.66	0.76	0.43	0.76	0.43	0.20
10. Japan	Low (9-) High (14+)	74 71	74 71	71 74	74 71	28.70 28.24	27.85 26.37	50.06 51.03	0.90	8.12	1.81	27.85 26.37	0.90	8.12	1.81	50.06 51.03	0.35	0.01	0.35	0.01	0.18
11. Belgium	Low (11-) High (15+)	48 45	48 45	49 41	48 45	33.08 30.33	27.60 27.87	48.31 48.97	17.73	0.09	0.41	27.60 27.87	17.73	0.09	0.41	48.31 48.97	0.005	0.75	0.005	0.75	0.53

¹Controlling for unequal N's.²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse is true.³PATE = Progressive Attitudes Toward Education⁴TATE = Traditional Attitudes Toward Education⁵L = Leadership Value⁶The numbers in parentheses indicate the scores assigned to low and high. The cutting point varies

TABLE 7 Means and F-Statistics Comparing High and Low Scores Within Nations on Recognition

Value Scores With Attitudes Toward Education and Toward Disabled Persons in Eleven Nations

No. Nation	"R" ⁶ Value	N				Mean				F				Sig. of F			
		PATE ³		TATE ⁴		PATE		TATE		PATE		TATE		PATE	TATE	ATDP	ATDP
		ATDP ²	TATE ⁴	ATDP ²	TATE ⁴	ATDP ²	TATE	ATDP ²	TATE	ATDP ²	TATE						
1. United States	Low (7-) High (15+)	97	97	96	31.05	27.40	44.86	2.55	0.06	2.11	.11	.80	.14				
		81	81	81	30.25	27.52	46.05										
2. Costa Rica ²	Low (7-) High (12+)	78	71	79	32.54	28.91	38.48 ²	3.64	0.32	0.01	.07	.58	.87				
		71	71	72	31.15	28.44	38.58										
3. Colombia	Low (5-) High (10+)	54	58	53	31.46	29.31	48.91	0.99	0.47	8.89	.32	.50	.005				
		57	56	55	30.72	28.84	53.33										
4. Peru	Low (5-) High (1.2+)	69	69	54	31.04	29.97	49.91	0.03	1.61	0.65	.86	.20	.42				
		74	74	53	31.14	30.79	50.79										
5. England	Low (6-) High (11+)	26	26	25	32.08	24.35	47.96	4.71	1.70	2.54	.09	.03	.11				
		19	19	19	30.00	26.00	49.95										
6. Holland	Low (3-) High (9+)	63	64	60	31.98	29.56	47.67	11.31	0.68	1.50	.005	.42	.22				
		53	53	52	29.68	29.06	48.56										
7. France	Low (4-) High (9+)	45	45	42	30.24	29.33	49.88	1.25	0.02	0.27	.26	.85	.61				
		77	78	75	31.32	29.46	49.23										
8. Yugoslavia	Low (5-) High (14+)	57	57	57	32.68	32.44	47.51	0.15	3.08	2.37	.70	.10	.12				
		50	50	50	32.42	30.72	51.36										
9. Denmark	Low (4-) High (7+)	34	34	34	33.12	29.23	49.38	0.08	1.84	1.64	.77	.18	.20				
		36	36	36	32.89	27.64	47.36										
10. Japan	Low (6-) High (9+)	72	72	68	28.33	27.49	50.56	1.27	0.54	1.24	.26	.47	.27				
		68	68	71	28.88	27.10	51.42										
11. Belgium	Low (5-) High (7+)	35	35	34	32.00	27.97	48.00	0.92	0.12	0.55	.34	.72	.47				
		72	72	70	31.33	27.69	48.81										

¹Controlling for unequal N's.

²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse is true.

³PATE = Progressive Attitudes Toward Education

⁴TATE = Traditional Attitudes Toward Education

⁵R = Recognition Value

⁶The numbers in parentheses indicate the scores assigned to low and high. The cutting point varies from nation to nation to the distribution of scores.

TABLE 8 Means and F¹ Statistics Comparing High and Low Scores Within Nations on Benevolence Value Scores With Attitudes Toward Education and Toward Disabled Persons in Eleven Nations

Eleven Nations

No.	Nation	"B" ⁷ Value	N				Means				F				Sig. of F
			PATE ³	TATE ⁴	ATDP ⁶		PATE	TATE	ATDP ²		PATE	TATE	ATDP		
1.	United States	Low (16-) High (24+)	130 99	130 99	98 130	30.21 30.70	27.33 27.09	46.04 44.67	4.1	1.30	0.29	4.1	.25	.59	.05
2.	Costa Rica ²	Low (16-) High (23+)	71 79	71 79	72 81	31.41 32.54	28.79 29.25	38.64 38.52	0.02	2.34	0.33	0.02	.12	.57	.87
3.	Colombia	Low (16-) High (25+)	7 34	6 36	7 36	39.86 38.32	28.50 28.92	49.14 49.89	0.04	2.35	0.07	0.04	.13	.79	.82
4.	Peru	Low (14-) High (84+)	65 84	65 84	55 64	30.03 29.75	30.37 31.12	50.11 51.12	0.79	4.33	0.99	0.79	.04	.32	.38
5.	England	Low (18-) High (21+)	26 23	26 23	26 23	30.27 31.87	25.08 25.26	46.23 45.91	0.01	3.50	0.02	0.01	.06	.88	.93
6.	Holland	Low (15-) High (21+)	72 70	73 70	71 66	29.05 31.48	28.64 29.67	49.93 47.57	3.24	17.37	3.61	3.24	.005	.07	.09
7.	France	Low (20-) High (24+)	57 107	57 107	54 105	31.77 30.90	29.71 29.34	49.26 49.54	0.07	1.31	0.28	0.07	.25	.60	.78
8.	Yugoslavia ⁶	Low (16-) High (22+)	51 55	50 55	49 54	31.86 32.24	31.70 31.94	53.41 51.80	2.65	0.32	0.16	2.65	.58	.69	.10
9.	Denmark	Low (20-) High (23+)	38 41	38 41	38 40	33.63 34.29	28.05 28.88	49.39 47.22	1.73	0.91	0.57	1.73	.34	.46	.19
10.	Japan	Low (16-) High (22+)	68 62	68 62	62 68	29.29 28.44	27.10 27.19	51.34 50.37	1.61	2.90	0.25	1.61	.09	.85	.20
11.	Belgium	Low (19-) High (23+)	41 49	41 49	40 46	31.02 31.90	28.00 27.69	49.82 47.69	3.62	1.36	0.12	3.62	.24	.73	.07

¹Controlling for unequal N's.

²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse was true.

³PATE - Progressive Attitudes Toward Education

⁴TATE - Traditional Attitudes Toward Education

⁵B = Benevolence

⁶ATDP = Attitudes Toward Disabled Persons

⁷See footnote 6 in Table 7.

by Wright, 1960) or were there problems of relevance, equivalence, or comparability of measurement?¹ It is also to be noted that Wright's "comparative" hypothesis, as measured by Gordon's L and R scales in hypothesis 1 and 2, received very limited support. It was supported only in Colombia where the relevance of physical disability has been articulated into public consciousness by a twenty year old civil disturbance, where it has been fashionable for the banditos in the hinterlands to control the peasantry by purposefully cutting off arms, legs, ears, etc. (Jordan and Friesen, 1968). The culturally-specific relevance of physical disability in Colombia, in conjunction with the Colombian level of machismo, has perhaps, structured a different relationship between the need for recognition and positive attitudes toward the disabled; i. e., those who look for recognition feel positive toward the disabled, perhaps as a method of achieving recognition. Or perhaps certain levels of machismo like to work with the disabled as an object to dominate.

Relating Attitudes, Values, and Sex

H-4: Women within and across nations will score higher than men in (a) the need to help others, (b) progressive attitudes toward education, and (c) positive attitudes toward disabled persons.

The B value was measured as described in Hypothesis 3, and PATE, TATE, and ATDP as described in Hypothesis 1. The data for Hypothesis 4 are presented in Table 9.

The hypothesis for sex and B value (H-4a) was supported in seven of the ten nations. It was not tested in Belgium. When all women were compared to all men across the ten nations, women also scored significantly (.005) more benevolent than men. In England, France, and Denmark no significant differences existed between men and women on benevolence, although even in these nations the absolute difference in scores was in favor of the hypothesis. In this hypothesis (H-4a) we come close to a cross-culturally invariable relationship.

Interesting speculations can be made concerning the sex variable in England, France, and Denmark, the three nations where the hypothesis was not confirmed. Literature, poetry, dance, and the study of history offer many examples. In England, a person is "intellect" rather than male or female; the Beatles are knighted, Christine Keeler is idolized, "sex" is openly discussed on BBC, and French-kissing in Trafalgar Square is scarcely noticed. The much publicized Scandinavian attitude toward sex is evident in Denmark in customs or practices dealing with work, dating, marriage,

¹See discussion of these concepts in Chapter 2.

abortion, smoking, etc. In Paris, the kissing-male, the pissoir, the Follies, the French chef, Pigale, and Mont Martre lend support to a gender versus sex role differentiation. The work of Useem (1966) on gender roles is relevant to this thesis.

The hypothesis for sex and progressive attitudes toward education (H-5b) was supported in the United States, Costa Rica, Peru, and France in that women did score significantly higher than men. Differences between men and women when combined across nations were not statistically different at our established (.05) level of significance (Table 9). No rationale is immediately evident for the relationship holding in some nations and not in others.

The hypothesis for sex and ATDP (H-4c) was supported only in the United States and Colombia (Table 9), while males in Peru scored more positively on attitudes toward the disabled than females; which was the reverse of that hypothesized. When combined across nations, females scored significantly more positive (.008) in attitudes toward the disabled than males.

Relating Attitudes and Contact

H-5: The more frequent the contact with education or with disabled persons the higher will be the scores on the intensity statements of the (a) PATE, and (b) TATE, and (c) ATDP scales, regardless of the positiveness or negativeness of the attitude content.

Frequency of contact with education and with disabled persons was measured by direct questions in the questionnaire (see Variable list in Appendix C.1). The hypothesis for contact and attitude intensity for PATE (H-5a) was not supported in any nation although, it was at the .06 level in Japan. The analogous hypothesis for TATE (H-5b) was supported only in Belgium (Table 10).

The hypothesis for contact and attitude intensity for ATDP (H-5c) was supported (Table 11) in five nations (Costa Rica, Holland, Denmark, Japan, Belgium). It was in the direction of the hypothesis in four additional nations (Colombia, Peru, France, Yugoslavia), and was directionally opposite from that predicted in the United States. This finding, in conjunction with the results of H-5a and 5b above, suggests that the hypothesized relationship between contact and attitude intensity may hold more when the attitude object is a personal one such as disabled persons rather than a conceptual one such as education.

TABLE 9 Means and F-Statistics Comparing Males and Females Within and Across Nations on

Benevolence Value, Attitudes Toward Education, and Toward Disabled Persons in Ten Nations

	Benevolence						PATE ³						ATDP ⁵						
	Males			Females			Males			Females			Males			Females			
	N	Mean	F	N	Mean	F	N	Mean	F	N	Mean	F	N	Mean	F	N	Mean	F	Sig. F
1. United States	181	17.26	16.43	207	19.84	16.43	183	30.16	13.12	210	30.85	13.12	183	46.04	7.75	209	44.58	7.75	.01
2. Costa Rica ²	120	18.40	8.72	144	20.36	8.72	124	31.09	6.27	145	32.41	6.27	126	39.29	1.73	147	38.38	1.73	.19
3. Colombia	87	19.35	6.31	132	20.92	6.31	79	30.49	0.03	131	30.60	0.03	84	52.55	5.02	130	50.24	5.02	.03
4. Peru	212	18.12	8.24	125	19.71	8.24	237	30.21	7.40	144	31.19	7.40	195	50.28	5.37	98	52.15	5.37	.02
5. England	26	16.00	0.35	38	17.37	0.35	26	31.31	0.07	38	31.10	0.07	26	39.69	2.99	38	46.74	2.99	.08
6. Holland	124	16.44	18.80	98	19.36	18.80	130	30.38	0.49	99	30.73	0.49	124	48.06	0.25	101	48.36	0.25	.63
7. France	85	19.95	1.73	125	20.83	1.73	85	30.23	5.52	133	31.77	5.52	64	49.69	0.04	64	49.55	0.04	.82
8. Yugoslavia	101	17.92	8.59	85	19.90	8.59	104	32.56	1.07	88	32.04	1.07	104	52.35	0.12	84	52.07	0.12	.73
9. Denmark	92	20.10	1.17	56	21.39	1.17	97	33.48	1.36	57	34.00	1.36	96	49.07	2.80	57	47.16	2.80	.90
10. Japan	113	18.27	4.49	98	19.56	4.49	113	28.64	0.04	98	28.71	0.04	113	50.65	0.09	97	50.47	0.09	.76
Across Nations	1,087	18.23	36.67	1,037	20.11	36.67	1,124	30.67	2.84	1,076	31.26	2.84	1,101	48.20	7.02	1,042	47.34	7.02	.008

¹Belgium deleted since sex designation was inadvertently omitted.

²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse is true.

³PATE = Progressive Attitudes Toward Education.

⁴Based on adjusted means. See Tables 1-8, Appendix A.

⁵ATDP = Attitudes Toward Disabled Persons.

TABLE 10 Zero-Order Correlational Patterns Between Attitude Scores, Values, Contact, Intensity, and Religiosity Variables¹ for Four Occupational Groups in Eleven Nations

Hypothesis No.:	H:1			H:2			H:3			H:5			H:9														
	Leadership			Recognition			Benevolence			Contact			Religiosity														
	No.	Nation and Group	SER	E	M	L	PATE	TATE	ATDP ²	PATE	TATE	ATDP ²	PATE	TATE	ATDP ²	Education			Disabled			Importance			Adherence		
PATE																TATE	ATDP ²	PATE	TATE	ATDP ²	PATE	TATE	ATDP ²	PATE	TATE	ATDP ²	PATE
1.	United States	SER	.07	-.08	.02	-.05	-.02	11	.07	.01	-13	.22 ⁴	.19 ⁴	-.04	-.00	-.00	-.04	-.17	-.15	-.06	-.06	-.09	-.08	-.08	-.18	-.07	-.03
		E	.04	.02	-12	-.16	-.05	-03	-.10 ⁴	.00	02	.22 ⁴	.26 ⁴	-.06	-.11	09	08	-.18	-.07	-.03	-.05	-.09	-.13	-.09	-.13	-.02	
		M	.05	-.07	07	-.09	.09	04	.24 ⁴	-.08	-16	-.09	.05	05	-10	04	-.02	-.09	-.13	06	-.12	-.06	-.12	-.06	-.12	-.06	
		L	.15	-.09	10	-.06	-.10	18	-.02	.04	-17	-.01	-.02	-.00	-13	10	-.10	-.12	06	-.12	-.06	-.12	-.06	-.12	-.06	-.10	
2.	Costa Rica ²	SER	-.04	-.15	-07	-.01	-.05	-09	-.14	.24	27	--	--	21	-.02	29	19	--	--	--	--	--	--	--	--	--	
		E	-.01	-.06	04	-.06	-.03	-07	.06	.04	05	--	--	12	-.03	00	-07	--	--	--	--	--	--	--	--	--	
		M	-.05	-.07	00	-.23	-.04	-23	.36	.12	21	--	--	10	13	11	-03	--	--	--	--	--	--	--	--		
		L	-.13	-.05	20	-.20	-.23	15	.00	.10	-29	--	--	18	02	-06	11	--	--	--	--	--	--	--	--		
3.	Colombia ³	SER	-.13	.13	-03	-.04	.08	26	.34 ⁴	.06	-15	.49 ⁶	-.09 ⁴	17	-.12	27	08	-.07	01	-.17	-.07	01	-.17	-.07	01	-.17	
		E	-.11	-.06	-04	-.09	-.07	05 ⁵	.06	.08 ⁴	11	.34 ⁵	-.18 ⁴	-13	15	12	-18	02	14	-.08	-.09	02	14	-.08	02		
		L	-.02	-.07	04	-.08	-.23	41 ⁵	.22	.39 ⁴	-02	.09	.56 ⁵	09	13	-19	13	-12	-05	06	-.12	-05	06	-.12	-05		
4.	Peru ⁷	SER	-.27	-.25	07	-.01	-.04	02	-.25	.08	-02	.31 ⁴	.37 ⁴	34 ⁴	-.22 ⁴	-.07 ⁴	07	-.18	-.50 ⁵	26	-.22 ⁴	-.07 ⁴	07	-.18	-.50 ⁵		
		E	-.08 ⁴	-.02 ⁴	04	02	.08	03	.06	-.10	-06	.16 ⁵	.14 ⁴	24 ⁶	13 ⁴	14 ⁴	-02	09 ⁵	18 ⁵	-.01	-.22 ⁴	-.07 ⁴	07	-.18	-.50 ⁵		
		M	-.28 ⁴	-.21 ⁴	-02	.05	-.03	04	-.05	.14	21	.01	.26 ⁴	-10	28 ⁴	23 ⁴	-06	09 ⁵	14 ⁴	-.09	-.28 ⁴	-.21 ⁴	-02	04	-.05		
5.	England ⁷	SER	-.05	-.16	-20	-.14 ⁴	.16	-07 ⁵	.36 ⁴	-.13	-15 ⁴	-.09	.01	13 ⁴	-.22	-.07	-.09	-.23 ⁴	-.15	-.34	-.22	-.07	-.09	-.23 ⁴	-.15		
		E	.17	-.19	08	-.66 ⁴	.30	47 ⁵	.41 ⁵	-.09	-34 ⁴	.03	-.32	-34 ⁴	-.22	15	-.13	-.41 ⁴	16	-.01	-.22	15	-.13	-.41 ⁴	16		
		M	.09	-.34 ⁴	-08	-.36	.06	-04	.11	-.08	-08	.46	.09	.06	-.28	20	-.02	-.24	13	-.03	-.28	20	-.02	-.24	13		
6.	Holland	SER	.07	.02	-10	-.16 ⁴	-.14	15	.05	.30 ⁴	-38 ⁵	-.16	.26	09	-.09	22	-.20	-.18	16	-.14	-.09	22	-.20	-.18	16		
		E	.08	-.06	03	-.27 ⁴	.01	06	.20 ⁶	-.08	-02	.07	.15	41	-.27	14	-.07	-.21	23	05	-.27	14	-.07	-.21	23		
		M	-.16	-.03	02	-.27 ⁴	-.16	11	.34 ⁶	.09	03	.36 ⁴	.04	17	-.02	19	-.05	11	07	24	-.02	19	-.05	11	07		
		L	-.10	-.09	07	-.27 ⁴	.07	-03	.49 ⁶	.08	-21	.92 ⁴	.23	19	-.05	04	19	-.08	-.02	12	-.05	04	19	-.08	-.02		
7.	France	SER	.08	.07	-05 ⁴	.00	-.01	-13	.21	-.05	-07	.04	.07	25 ⁴	-.09	18	06	-.01	18	13	-.09	18	06	-.01	18		
		E	.05 ⁶	-.15 ⁴	-23 ⁴	-.07	-.11	09 ⁵	.08	-.01	09	-.10	-.15	22	-.21	02	03	-.24	11	12	-.21	02	03	-.24	11		
		M	-.40 ⁶	-.35 ⁴	-26 ⁴	-.03	.01 ⁴	25 ⁵	.12 ⁴	.02	-21	.18	-.03	11	03	-13	-02	-.12	-03	03	-.12	-03	-13	-02	-03		
		L	.13	.01	21	-.01	-.30 ⁴	-15	.29 ⁴	.26	-01	--	--	-15	-.02	13	-10	02	-10	-.03	-.02	13	-10	02	-10		
8.	Yugoslavia	SER	-.29 ⁴	-.23	-10	-.15	-.25	-13 ⁵	.05	.18	-13	.04	.04	30 ⁴	13	14	-.02	21	28	-.05	13	14	-.02	21	28		
		E	-.37 ⁴	-.01	-23	.00	-.25	49 ⁵	.13	.14	-22	.07	.01	32 ⁴	-.05	01	-.00	-.01	-14	-.10	-.37 ⁴	-.01	-23	49 ⁵	-.10		
		M	-.25	.11	17	.03	.01	05	.24	-.07	-16	.47	.21	12	-.30	05	-10	-.30	-01	-.10	-.25	.11	17	.03	.01		
		L	-.12	.09	34	.20	.01	22	.06	-.03	-14	-.75	-.98 ⁵	20	-.27	-15	22	-.16	-07	12	-.12	.09	34	.20	.01		
9.	Denmark	SER	.15	-.04	01	-.11 ⁶	-.25	13	-.03 ⁴	-.07	-18	-.06	.03	36 ⁵	-.03	07	02 ⁴	-.05	10	22	-.03	07	02 ⁴	-.05	10		
		E	.13	-.09	13	-.43 ⁶	.01	01	.26 ⁴	.18	-06	-.12	-.20	18	00	19	26 ⁴	-.05	22	10 ⁴	-.12	19	26 ⁴	-.05	22		
		M	-.09	-.08 ⁴	16	-.13	-.20	-16	-.09	.29	-03 ⁴	-.03	.11 ⁵	19	03	21	10	15	42	33 ⁵	-.09	-.08 ⁴	16	-.13	-.20		
		L	-.04	-.38 ⁴	16	.13	-.21	21	.12	.42	-38 ⁴	-.30	-.62 ⁵	-26	-19	-10	-06	-.18	-.14	-.47 ⁵	-.04	-.38 ⁴	16	.13	-.21		
10.	Japan	SER	.18	.16	25 ⁴	-.22	-.03	-17	-.11	.10	12	-.10	-.16	33 ⁵	02	23	29 ⁴	02	32	39 ⁶	.18	.16	25 ⁴	-.22	-.03		
		E	.18	.17	-14	-.05	-.13	13	.21	.24	11 ⁴	.08	.11	22	20	00	-03	18	-12	-03	.18	.17	-14	-.05	-.13		
		M	-.01	.06	09 ⁴	.02	-.02	-08 ⁴	.13	.08	-24 ⁴	-.15	.16	39 ⁴	-.00	03	-08	02	01	17	-.01	.06	09 ⁴	.02	-.02		
		L	-.17	.04	27	.08	.20	28 ⁴	-.12	.05	-12	.34	.34	41 ⁴	12	-06	06	-.02	-06	17	-.17	.04	27	.08	.20		
11.	Belgium	SER	-.55 ⁶	.22	-10	-.07 ⁴	-.15	21	.40 ⁴	.27	-09	-.07	-.12 ⁴	04	-.28	-.05	-.04	10	00	23	-.55 ⁶	.22	-10	-.07 ⁴	-.15		
		E	-.06 ⁴	.05	13	-.31 ⁴	-.02	-19 ⁶	.07	-.05	-25	.22	.33	10	-.12	-.06	-.21	16	-.07	12 ⁴	-.06 ⁴	.05	13	-.31 ⁴	-.02		
		M	-.37 ⁴	-.17	21 ⁴	-.31	-.24 ⁴	48 ⁶	.19	.12	20	.20	.22	68 ⁶	-.34	08	31	14	-.07	41 ⁴	-.37 ⁴	-.17	21 ⁴	-.31	-.24 ⁴		
		L	-.42 ⁴	.04	-42 ⁴	.34	.52	09	-.35	-.22	-24	.45	.02	28	-.04	07	-.29	-.12	-.08	41 ⁴	-.42 ⁴	.04	-42 ⁴	.34	.52		

¹See Appendix C for variable details.

²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse is true.

³No "M" group in Colombia.

⁴p < .05

⁵p < .01

⁶p < .005

⁷No "L" group in Peru or England.

Relating Attitudes and Favorableness

H-6: High frequency of contact with education will be associated with favorable attitudes toward (a) progressive education, (b) traditional education, or (c) disabled persons if high frequency is concurrent with (a) alternative rewarding opportunities and (b) enjoyment of the contact.

Frequency of contact with education or with disabled persons was measured as in Hypothesis

5. Enjoyment of contact, alternatives to contact, and possibilities of avoiding the contact were measured by direct questions in the questionnaire (see Variable list in Appendix C. 1). The data for Hypothesis 6 are presented in Table 12.

The hypothesis for contact and favorableness of attitudes toward PATE (H-6a) was supported (Table 12) in Colombia, Peru, England, Denmark, and Belgium in that the multiple correlation of the combined contact variables was statistically significant; and in most cases, the high partial correlations were high with alternatives or enjoyment. It appears that the combined contact variables of Table 12 can predict favorable PATE and that amount of contact per se is not the main contributor.

The hypothesis for contact and favorableness of attitudes toward TATE (H-6b) was partially supported (Table 12) in Holland, France, and Yugoslavia in that the multiple correlation was statistically significant. However, in Yugoslavia high amount of contact with education occurred with low PATE scores and/or high PATE scores occurred with low amount of contact with education. The same relationship existed in Yugoslavia between TATE and amount of contact with education. It appears that in Yugoslavia extensive experience in education leads to less favorable attitudes toward both progressive and traditional education. The enjoyment contact variable was most predictive in Yugoslavia, nearly reaching significance at the .05 level.

The hypothesis for contact and favorableness of attitudes toward ATDP (H-6c) was supported (Table 12) in all ten nations in that the multiple correlation was significant. In all the nations except England and Denmark the partial correlations were higher for enjoyment and avoidance than they were for amount of contact per se. This raises the interesting speculation that more "affect" is tied to working with the disabled in the United States, Colombia, Peru, Holland, France, Yugoslavia, Japan, and Belgium than there is in England or Denmark. In England and Denmark are things done more from a cognitive base than an affective one? The correctness of this speculation is a matter for empirical verification but current national stereotypes would lend some support to the thesis.

TABLE 11 Means and F Statistics¹ Comparing High and Low Attitude Intensity Scores Within Ten³

Nations on Amount of Contact with Education and with Disabled Persons

No.	Nation	Contact ⁵		Intensity - "N"		Intensity Means		<u>F</u>		Sig. of <u>F</u>					
		Educ.	HP ⁴	PATE	TATE	ATDP	TATE	PATE	TATE	ATDP	TATE	ATDP			
1.	United States	Low (3-) High (6+)	(2-) (5+)	62 224	62 224	76 140	32.82 33.06	31.24 31.79	60.33 59.67	0.26	1.04	0.36	.61	.31	.56
2.	Costa Rica ²	Low (---) High (---)	(2-) (5+)	---	---	100 107	---	---	48.31 50.03	---	---	4.19	---	---	.05
3.	Colombia	Low (4-) High (7+)	(1-) (4+)	47 51	48 54	53 49	37.23 36.92	36.60 35.94	68.07 69.45	0.31	0.84	0.83	.58	.36	.37
4.	Peru	Low (4-) High (8+)	(1-) (5+)	22 22	22 22	28 21	32.95 32.73	33.04 31.82	59.38 63.21	0.05	1.33	1.50	.80	.25	.23
6.	Holland	Low (4-) High (6+)	(2-) (5+)	42 49	43 50	51 70	31.26 31.75	31.51 32.72	55.51 60.03	0.41	2.45	10.91	.53	.12	.005
7.	France	Low (4-) High (7+)	(3-) (5+)	33 26	27 32	64 98	32.67 34.58	35.18 33.72	60.89 64.50	1.30	1.47	2.78	.26	.23	.09
8.	Yugoslavia	Low (5-) High (8+)	(2-) (5+)	29 27	29 27	51 63	34.31 34.96	35.17 34.96	64.59 66.92	0.66	0.05	2.88	.42	.81	.09
9.	Denmark	Low (4-) High (6+)	(3-) (5+)	38 47	38 47	54 61	35.37 35.00	33.68 33.13	60.15 64.23	0.28	0.51	6.36	.60	.48	.01
10.	Japan	Low (6-) High (8+)	(1-) (3+)	45 57	45 57	76 70	33.20 31.72	34.02 32.82	57.87 64.54	3.82	2.88	25.24	.06	.09	.005
11.	Belgium	Low (4-) High (6+)	(3-) (5+)	29 29	29 29	35 38	30.59 32.45	28.52 31.48	54.46 65.03	2.54	4.82	13.00	.11	.03	.005

¹Controlling for unequal N's.

²Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse is true.

³England omitted due to small sample.

⁴HP = Contact with disabled persons.

⁵See questions no. 4 in PQ for meaning of education contact and PQ-HP no. 4 for HP contact.

TABLE 12 Multiple and Partial Correlations Between Contact Variables and Attitude Scales in Ten⁴

Nations

No.	Nation	Scale	N	Mult. R	Contact Variable--Partial r			
					Amt.	Enjoy.	Alter.	Avoid.
1.	United States	PATE	396	.02	.00	-.00	.02	---
		TATE ⁵	396	.07 ³	-.01	-.02 ³	-.07	---
		ATDP ⁵	396	.28 ³	-.06	-.20 ³	.11	-.13 ²
3.	Colombia	PATE	241	.20 ²	.05	.14	.07	---
		TATE ⁵	241	.09 ²	.03	.06	-.07	---
		ATDP ⁵	241	.25 ²	-.07	-.08	-.06	-.18 ¹
4.	Peru	PATE	135	.20 ¹	.05	.17 ¹	-.04	---
		TATE ⁵	135	.08 ²	.04	.03	-.06	---
		ATDP ⁵	135	.31 ²	-.07	-.08	-.06	-.18 ¹
5.	England	PATE	46	.26 ¹	.07	.09	-.23	---
		TATE ⁵	46	.19 ¹	-.01 ¹	-.18	.02	---
		ATDP ⁵	49	.27 ¹	.26 ¹	-.12	---	.19
6.	Holland	PATE	90	.16 ¹	-.14	.06	.08	---
		TATE ⁵	92	.18 ¹	.13	-.02 ¹	.12	---
		ATDP ⁵	155	.21 ¹	-.00	-.19 ¹	---	.04
7.	France	PATE	105	.14 ²	-.08	.13 ¹	.00	---
		TATE ⁵	106	.26 ²	.18	-.21 ¹	.09	---
		ATDP ⁵	174	.28 ³	-.10	-.16 ¹	---	-.23 ³
8.	Yugoslavia	PATE	99	.16 ¹	-.07	.14	-.07	---
		TATE ⁵	98	.19 ¹	-.15	.15 ²	-.06	---
		ATDP ⁵	159	.29 ³	-.01	-.22 ²	---	-.22 ²
9.	Denmark	PATE	96	.19 ¹	.19 ¹	.07	-.04	---
		TATE ⁵	96	.15 ¹	-.10	.02	.08	---
		ATDP ⁵	112	.16 ¹	.08	-.13	.01	-.04
10.	Japan	PATE	120	.12	.01	.11	-.01	---
		TATE ⁵	120	.16 ²	-.05	.01 ²	.15	---
		ATDP ⁵	133	.26 ²	-.09	-.22 ²	---	-.04
11.	Belgium	PATE	82	.23 ¹	.21 ¹	.10	.06	---
		TATE ⁵	82	.19 ³	.18	-.00	-.02	---
		ATDP ⁵	66	.30 ³	-.06	-.20	---	.01

¹p < .05

²p < .01

³p < .005

⁴Costa Rica omitted since not all contact variables were included.

⁵Low scores on ATDP indicate positive attitudes except in Costa Rica where the reverse was used.

Relating Attitudes and Change Orientation

H-7: Persons who score high on change orientation will score (a) high on progressive attitudes toward education, (b) low on traditional attitudes toward education, and (c) high on positive attitudes toward disabled persons.

Attitudes toward change orientation were measured by direct questions in the Personnel Questionnaire (see Variable list in Appendix C. 1). PATE, TATE, and ATDP were measured as in Hypothesis 1. The data for Hypothesis 7 are presented in Table 13.

The hypothesis on change orientation and PATE (H-7a) was supported (Table 13) in all nations in that the multiple correlation was significant. Close inspection of Table 13 indicates that the "child-rearing variable" is more predictive of PATE than are the combined change orientation variables. The "birth control variable" was also highly predictive of PATE. Colombia presents an interesting analysis: those who scored high on PATE scored significantly high on new child-rearing methods and positive attitudes toward automation while at the same time being against regular change of political leaders. Perhaps Colombians, who only recently have experienced political stability, see political change as chaos rather than as regularized change of power.

The hypothesis for change orientation and TATE (H-7b) was supported (Table 13) in the United States, England, Holland, France, Yugoslavia, and Japan. In these nations, those who scored high on TATE were generally against change.

The United States and France present an interesting analysis and comparison. In the United States the relationship between TATE and change orientation was directionally as hypothesized on all variables, and the relationship was significantly strong between TATE and being against birth control.

In France, the relationship between TATE and change orientation was quite different than the relationship in the United States. The direction of correlation was reversed on attitudes toward fluoridation, new child-rearing practices, and automation, while the strength of relationship was markedly different on attitudes toward birth control, regular change of political leaders, and perceived receptivity to self-change. Those who scored high on TATE in France were strongly for birth control, strongly against change of political leaders, and saw themselves as resistant to self-change. Either they are for DeGualle or they remember the pre-DeGualle political instability and are against it.

TABLE 13 Multiple and Partial Correlations Between Change Variables and Attitude Scales for Ten⁴

Nations

No.	Nation	Scale	N	Mult. R	Partial r					
					Change Orientation and Attitude Favorableness					
					Fluor.	Child Rear.	Birth Control ⁵	Autom.	Polit. Lead.	Self Change
1.	United States	PATE	396	.27 ²	.14 ²	.15 ²	-.04 ²	.09	.03	.06
		TATE ⁷	396	.20 ¹	-.04	-.08	.12 ²	-.08	-.00	-.03 ¹
		ATDP ⁷	396	.18 ¹	-.03	.03	.04	-.13 ²	.01	-.11 ¹
3.	Colombia	PATE	241	.33 ²	-.03	.24 ²	-.05	.13 ¹	-.13 ¹	.03
		TATE ⁷	241	.12	.02	.06	.02	.01	-.08	-.04
		ATDP ⁷	241	.12	-.04	-.05	.05	-.02	-.06	.02
4.	Peru	PATE	103	.25 ¹	-.03	.18 ¹	-.01	-.06	---	-.19 ¹
		TATE ⁷	103	.11	.02	.08	.02	-.04	---	.07 ²
		ATDP ⁷	103	.32 ²	-.07	-.05	.03	-.08	---	-.25 ²
5.	England	PATE	62	.23 ¹	-.10	.07	-.17	-.17	.00	-.07
		TATE ⁷	62	.32 ²	.03 ¹	-.21	-.06	.01	.22	-.09
		ATDP ⁷	58	.35 ²	-.23 ¹	-.04	.14	-.08	.00	-.07
6.	Holland	PATE	220	.30 ³	.00	.17 ¹	-.09	-.03	.19 ²	.09
		TATE ⁷	222	.19 ²	-.07	-.07	.01	.08	.12	-.10 ¹
		ATDP ⁷	217	.23 ²	.00	.10	-.01	-.08	.04	.17 ¹
7.	France	PATE	225	.29 ³	-.00	.16 ¹	-.15 ¹	-.15 ¹	-.06 ²	.15 ¹
		TATE ⁷	225	.29 ³	.06	.06	.18 ²	.10	-.19 ²	-.11
		ATDP ⁷	225	.20 ²	.05	.13	.04	-.06	-.08	-.08
8.	Yugoslavia	PATE	190	.25 ³	-.07	.22 ²	-.05	.07	-.09	-.02
		TATE ⁷	189	.19 ²	-.04 ¹	-.00	.00	.10	-.04	-.16 ¹
		ATDP ⁷	186	.27 ³	-.17 ¹	.02	.16 ¹	-.01	.00	.00
9.	Denmark	PATE	149	.31 ³	.08	.21 ¹	-.08	.02	.16	-.03
		TATE ⁷	149	.15 ¹	.03	-.01	.07	.13	.00	.05
		ATDP ⁷	148	.19 ¹	.11	-.07	.13	.09	.04	-.03
10.	Japan	PATE	207	.28 ²	.09 ¹	.21 ²	-.07	.03	-.07	-.04
		TATE ⁷	207	.27 ²	.15 ¹	.07	.01	.11	.07	-.13
		ATDP ⁷	207	.11	.03	.01	-.02	.06	.05	-.03
11.	Belgium	PATE	123	.29 ³	---	.19 ¹	-.17	-.04	.03	.11
		TATE ⁷	123	.18 ¹	---	-.14	.09	.09	.06	-.01 ¹
		ATDP ⁷	119	.21 ¹	---	.08	-.01	-.02	-.03	-.18 ¹

¹p < .05

²p < .01

³p < .005

⁴Change variables not used in Costa Rica.

⁵Low birth control scores indicate in-favor-of.

⁶See questions 42-44 and 47 in PQ for details.

⁷See Table 12, footnote no. 5.

The hypothesis for change orientation and ATDP (H-7c) was supported (Table 13) in all nations except Colombia and Japan in that the multiple correlation was significant. However, there was no consistent pattern between any particular change variable and ATDP.

Relating Attitudes and Institutional Satisfaction

H-8: Persons who score high on satisfaction with the performance of designated social institutions will score (a) low on progressive education, (b) high on traditional education, and (c) low on positive attitudes toward disabled persons.

Satisfaction with institutions was measured by direct questions in the Personal Questionnaire (see Variable list in Appendix C.1). PATE, TATE, and ATDP were measured as in Hypothesis 1. The data for Hypothesis 8 are contained in Table 14.

The hypothesis for institutional satisfaction and PATE (H-8a) was supported (Table 14) in all nations in that the multiple correlation was significant. Although supported in all nations, no special pattern was evident between satisfaction variables and ATDP (H-8c), however, close inspection of Tables 14 and 17 reveals some interesting relationships. In the United States and France, those who were satisfied with the performance of the university scored positively on the ATDP scale, whereas, in Colombia those who had positive attitudes toward the disabled (low ATDP) were dissatisfied with the performance of the university and with the church as well.

Relating Attitudes and Religiosity

H-9: Persons who score high on religiosity will score (a) low on progressive education, (b) high on traditional education, and (c) low on positive attitudes toward the disabled.

Religiosity was measured by direct questions in the Personal Questionnaire (see Variable list in Appendix C.1). PATE, TATE, and ATDP were measured as in Hypothesis 1. The data for Hypothesis 9 are contained in Tables 18 and 19.

The hypothesis for religiosity and attitudes received very limited support as indicated in Tables 18 and 19. Table 30 also indicates that high religiosity scores were not predictive of either high or low progressive attitudes toward education or toward disabled persons, but that religiosity was somewhat related to high traditional attitudes toward education.

Relating Attitudes and Group Membership

H-10: The SER group, within and across nations, will have more positive attitudes, (i. e., low scores) toward disabled persons than will persons in other occupational groups.

ATDP were measured as in Hypothesis 1. The data are contained in Table 20.

TABLE 14 Multiple and Partial Correlations Between Institutional Satisfaction Variables and Attitude Scales for Ten⁴Nations

No.	Nation	Scale	N	Mult. R	Partial r								
					Institutional Satisfaction ⁵ Variables								
					El. Ed.	Sec. Ed.	Univ.	Bus.	Labor	Local Gov.	Nat. Gov.	Health Serv.	Church
1.	United States	PATE	385	.23 ³	-03	09	09	-04	07 ¹	-00 ¹	09 ¹	-02	-10 ¹
		TATE ⁶	386	.23 ³	-05	-02	-02 ¹	01	-10 ¹	11 ¹	-12 ¹	-01	08
		ATDP ⁶	382	.18 ³	.05	-07	-10 ¹	03	01	08	-01	-07	-02
3.	Colombia	PATE	192	.13 ³	-00	05	-05	02	08	04	04	-04	-05 ¹
		TATE ⁶	192	.24 ³	-00	06	09 ¹	06	-02	-03	-05	-09	15 ¹
		ATDP ⁶	195	.25 ³	-01	03	15 ¹	-05	-04	-05	-06	-10	15 ¹
4.	Peru	PATE	354	.11 ³	07 ¹	-03 ²	04	-04 ¹	-00	-03	-01	-01	-02
		TATE ⁶	356	.19 ³	-10 ¹	13 ¹	-02	11 ¹	-03	06	-05	-04	04
		ATDP ⁶	282	.21 ³	-07	13 ¹	00	00	01	02	-11	-10	05
5.	England	PATE	59	.49 ³	-19	-14	-20	-14 ¹	27 ¹	01	00	-02 ¹	02
		TATE ⁶	59	.50 ³	13	18	10	29 ¹	-14 ¹	-00	01	-26 ¹	-09 ¹
		ATDP ⁶	58	.38 ³	03	00	-15	-14	-25 ¹	12	05	10	26 ¹
6.	Holland	PATE	207	.20 ³	-09	00	08	-02	-00	05	-03	02	16 ¹
		TATE ⁶	210	.25 ³	04	08	07	05	09	08	-04	02	-07
		ATDP ⁶	205	.19 ²	01	-11	07	09	09	-02	04	-02	-07
7.	France	PATE	202	.29 ³	01	-01	11	03	09 ³	05	-09	10	-16 ¹
		TATE ⁶	202	.37 ³	02	13	-04 ²	06	-20 ³	-05	20	01	12
		ATDP ⁶	197	.30 ³	02	-02	-18 ²	04	-11	-12	-04	-02	12
8.	Yugoslavia	PATE	168	.25 ³	00	01	02	02	-14	11	-05	-10	-18 ¹
		TATE ⁶	167	.21 ³	-00	-08	10	-07	-10	01	-01	02	01
		ATDP ⁶	164	.19 ¹	-08	-00	-09	06	06	06	-02	06	-03
9.	Denmark	PATE	144	.41 ³	19 ¹	-10	-02	05	07	-05	26 ²	-09	-22 ¹
		TATE ⁶	144	.28 ³	01	00	03	16	-05	-04	04	05	16
		ATDP ⁶	143	.19 ¹	01	-12	08	01	02	10	-03	-01	07
10.	Japan	PATE	211	.33 ³	06	04	02	06	12 ¹	-15 ¹	-05	15 ¹	04
		TATE ⁶	211	.29 ³	-03	11	-09	04	15 ¹	-04	01	06	05
		ATDP ⁶	210	.18 ²	-01	10	-08	09	-02	-03	04	-05	-00
11.	Belgium	PATE	117	.23 ¹	12	-00	02	-12	-05	-10	12	-02 ¹	02
		TATE ⁶	117	.34 ³	-04 ¹	-00	17	07	-05	-13	09	-23 ¹	05
		ATDP ⁶	114	.28 ²	-21 ¹	09	-08	-15	04	06	09	09	-09

¹p < .05

²p < .01

³p < .005

⁴Costa Rica omitted since variables were not consistent with other nations.

⁵High scores indicate satisfaction.

⁶See Table 12, footnote no. 5.

TABLE 15 Zero-Order Correlation Patterns Between PATE and Educational Contact -Change Orientation -Institutional Satisfaction Variables for Four Groups in Eleven Nations

No.	Nation	Educ. Contact										Change Orientation										Institutional Satisfaction ⁶			
		Amount	Enjoy.	Alter.	Fluor.	Rear.	Child	Birth	Control ⁷	Auto.	Poll.	Self	El.	Sec.	Univ.	Bus.	Labor	Local	Natl.	Health	Church				
1.	United States	SER	00	-00	03	18	19 ³	-06	14	05	09	08	15	13	02	09	05	12	00	-05	-02				
		E	-10	-15	04	14	03 ⁵	02	18	03	-03	-03	-02	07	02	08 ³	02	07	-05	-00	-03				
		M	-28	-10	-33	13 ³	30 ⁵	-01	-01	13	23 ³	-04	03 ⁴	19	03	20 ³	02	-02	-06	-06	-01				
		L	04	08	09	21 ³	16	-15	18	-17	-17	12	-03	26	16	-09	-06	-06	12	-01	-19 ³				
2.	Costa Rica	SER	--	-12	-22	--	--	--	--	--	--	--	--	--	-01	0 ³	-03	--	-14	-00					
		E	--	-07	16	--	--	--	--	--	--	--	--	--	-06	-07	06	--	09	-18					
		M	--	07	16	--	--	--	--	--	--	--	--	--	-17	-11	-19	--	-16	-02					
		L	--	14	01	--	--	--	--	--	--	--	--	--	-11	20	-19	--	-11	-13					
3.	Colombia ¹	SER	01	14	29	05	31 ³	-23 ³	29	12 ³	25 ³	-12	-06	-04	00	12	-17	08	-03	-17					
		E	08	20	12 ³	16	35 ⁴	-07	10	-28 ³	-11	13	10	-03	03	09	06	-03	02	16					
		M	17	40	-60	13	12	28	12	-19	08	-20	07	13	13	-13	16	04	-04	-24					
		L	--	--	01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
4.	Peru ²	SER	-02	26	-08	-13	42 ³	-11	-04 ³	--	-13	11	18	-06	-13	10	-23	-23	20	00					
		E	06	09	01	-01	12	-03	13	--	10 ⁵	01	-02	02	01	00	-03	-02	-03	-09					
		M	-01	09	07	-11	-09	17	11	11	--	-33 ⁵	-03	02	-11	16	-13	14	14	-05					
		L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
5.	England ²	SER	-22	06	-20 ³	-05	27	08	-08 ⁴	-08	-12 ³	-42 ³	-23 ⁵	-42 ³	-15	09	-25 ⁶	-21 ³	-71 ⁵	-21					
		E	05 ³	04 ³	-12 ³	-45 ³	23	-63	-63	39	36 ³	-61 ⁵	-63 ⁵	-46 ³	-21	-05	-58 ³	-40 ³	-19	-12					
		M	71	74 ³	83 ³	19	-02	-30	11	06	26	29	25	-17	24	31 ³	41 ³	33	33	31					
		L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
6.	Holland	SER	-31 ³	26	17	16	27	-12	-02	06 ⁴	08	-10	-04	17	-09	22	02	08	-01	04					
		E	-01 ³	-08	12	07	19 ⁵	-15	16	31	17	09	04	17	-01	09	00	-07	01	25					
		M	-63 ³	-70 ³	58	-11	33 ⁵	12	09	07 ⁴	-00 ³	-08	05	07	05	-08	-03 ³	-03	-03	16					
		L	92	--	--	18	03	-25	-00	30	25 ³	-04	05	01	09	-07	31 ³	16	16	19					
7.	France	SER	-01	09	02	10	41 ⁵	01	26 ³	17	20	-12 ³	-03	-04	10	05	07	02 ³	14	09 ⁶					
		E	-11	04	08	-13	09	-29	-09	-10 ⁴	11	23 ³	17	18	-13	03	-07	-25 ³	-07	43					
		M	-17	-14	03	06	-17 ³	-04	08	08	-41	21	03	19	06	29	08	-04	-04	-21					
		L	--	--	--	02	30 ³	-19	22	09	06	-05	03	01	27	13	07	09	09	10					
8.	Yugoslavia	SER	01	11	-15	-27	32 ³	04	26 ³	30 ⁴	00	-07	14	16	04	-30	-19	-37 ³	-19	-15					
		E	-11	22	-17	04	16 ⁴	-01	18	-08	01	06	06	14	-11	-22	-08 ³	-26 ⁵	06	-22 ³					
		M	-11 ³	05	44	10	36 ⁴	-02	-03	-00	-03	09	-00	-10	27	08	34 ³	11 ⁵	-03	-30 ³					
		L	-94 ³	--	-50	06	07	-06	07	-17	11	-09	-12	-08	-06	-01	08	04	04	-04					
9.	Denmark	SER	-05	15	-03	15	19	-13	01	21	-06	-22	-04	-18	-00	10	11	27	-20	19					
		E	-21	-04	-08	-27	07 ⁴	-09 ³	15	-07	05	19	08	18	09	04	-07	-07	-12	-07					
		M	-29	-28	-01	13	42 ³	-32 ³	26	17	-03	23 ⁴	04	-03	25	24	-03	23	23	-20					
		L	-28	00	--	-06	35 ³	00	16	31	13	46	21	06	-23	-19	03	28	28	-00					
10.	Japan	SER	03	-06	14	01 ³	25 ³	-16	10	10	-12	06 ³	-10	-02	-09 ³	-08	-13	05	05	19					
		E	11	31 ³	07	30 ³	29 ³	-19 ³	04	-08	09 ³	24 ³	21 ³	15	37 ³	32	13	13	27 ⁵	02					
		M	-03	19	-03	-04	23 ³	-25 ³	-07	-07	-23 ³	07	24 ⁵	27	-12	04	-12	-24	02	10					
		L	-02	-07	-13	25	14	-11	17	17	-07	06	22	19	-02	08	-18	-18	-24	21					
11.	Belgium	SER	16	02	02	--	26	-19	01	12	13	05	-15	-13	-11	-11	-50	-15	-11	-17					
		E	03	22	22	--	03 ³	-22	04	28	20	06	-01	14	-28 ³	-19	-04	-02	-16	-06					
		M	09	-34 ³	-34 ³	--	42 ³	-06	10	09	-07	07	25	-06	-13 ³	-28	00	-04	20	-05					
		L	44	-68 ³	-68 ³	--	19	-10	05	-02	-02	05	-09	-21	-32 ³	06	-06	10	11	17					

¹No "M" group in Colombia
²No "L" group in Peru or England
³5P < .05
⁴See questions 42-44 and 47 in PQ for details.
⁵Low scores indicate in-favor-of.

TABLE 16 Zero-Order Correlation Patterns Between TATE and Educational Contact-Change Orientation - Institutional Satisfaction Variables for Four Groups in Eleven Nations

No.	Nation	Ed. Contact			Change Orientation							Institutional Satisfaction ⁶							
		Amt.	Enjoy	Alter.	Fluor.	Child Rear.	Birth Control ⁷	Auto- mation	Poli. Lead.	Self Change	El. Ed.	Sec. Ed.	Univ.	Busi- ness	Labor	Local Gov.	Nat'l. Gov.	Health Serv.	Churches
1.	United States	SER E M L	-02 15 27 -00	-04 03 -01 04	-09 -13 -25 07	-07 -03 -12 -03	-09 -02 -01 -37	13 ³ 21 ³ 12 01	-11 -09 03 -06	-01 -10 03 -06	-04 -09 11 -10	-10 -02 -07 ³ -21 ³	-05 -04 -14 -07	-01 06 -06 -17	-12 -15 ³ -24 ³ -03	03 11 -05 -05	-14 -03 -19 -17	-04 01 -13 -05	06 04 04 04
2.	Costa Rica	SER E M L	-- -- -- --	17 01 04 21	-01 23 -09 03	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	06 -03 -06 -00	13 -11 ³ -30 ³ 14	25 09 04 -12	-- -- -- --	04 -01 -02 -00	19 05 09 -25 ³
3.	Colombia ¹	SER E M L	-17 16 14	-02 08 58 ³	-00 -08 42	05 08 31 ³	01 ³ 23 07	11 -02 11	-11 06 ³ 27 ³	-05 -05 ⁶ -43 ³	13 -08 -13	18 08 00	20 06 18	09 07 21	06 04 12	06 04 -08	04 -04 -16	15 -08 -26	14 20 07
4.	Peru ²	SER E M	59 ³ 08 00	16 ³ 13 -06	-34 -01 -08	43 ⁴ 06 00	42 ³ 08 03	42 ³ 08 03	36 ³ -04 -17	-- -- --	18 -04 -12	37 ³ 08 16	09 04 -02	-00 12 -03	04 -03 14	-18 05 22	-13 -02 23	-01 -17 -17	15 03 28 ³
5.	England ²	SER E M	-03 09 -55	-33 -10 -08 ³	34 33 -92 ³	-20 ⁴ 50 -05	-20 ³ 43 -06	14 23 10	08 ³ -39 ³ 07	12 ³ 34 ³ 10	-20 ³ -34 ³ -08	15 ³ 39 ³ -22	-11 ³ 36 ³ -16	37 ³ 12 03	-06 -28 23	-06 32 -02	02 -01 22	04 -17 -17	-27 05 17
6.	Holland	SER E M L	13 11 61 ³ 92 ³	14 -13 62 --	09 19 76 --	04 14 -13 -05	02 ³ 25 ³ 15 -22	13 08 03 02	13 16 11 02	-06 08 01 ³ 28 ³	-26 ³ 07 -17 12	15 14 15 23	21 05 11 23	17 06 -01 22	-03 ⁴ 33 10 11	25 -01 24	21 -11 02 18	06 14 03 13	-03 09 -00 -04
7.	France	SER E M L	11 20 ⁴ 66 --	-05 -09 -10 --	05 08 23 --	20 -15 -03 ⁴ 40	18 08 03 02	18 03 01	13 03 04 01	-11 ³ -22 ³ 04 09	-07 -09 ³ -33 -04	10 ³ 24 ³ -06 25	-02 11 -12 18	20 -11 -04 -04	-10 -18 ⁴ -37 -04	31 -00 -09 -34	21 ³ 16 03 12	12 03 -23 ³ 30	17 08 -01 17
8.	Yugoslavia	SER E M L	-11 14 -14 -80	09 23 20 98 ³	-06 -24 26 -33	-19 04 -05 -01	00 -04 03 -03	12 01 01 16	12 01 01 16	-10 03 03 -00	-25 ³ -30 ³ -11 -05	-12 -16 -19 -03	12 04 -07 -02	-20 -22 -04 02	-27 -08 -17 -08	-27 -12 -10 04	-25 ³ 02 -20 09	-07 03 -08 00	09 10 -23 12
9.	Denmark	SER E M L	02 -27 14 -40	19 -03 14 -94	-06 09 -15 --	-01 -07 16 04	03 07 01 01	-01 -09 16 15	-01 -09 16 23	-03 23 -19 08	-17 12 27 23	21 15 -07 04	16 03 02 -09	10 17 25 09	-10 10 15 01	-24 08 -04 14	-09 16 21 17	21 18 20 -05	08 ³ 28 ³ 21 ³ 33 ³
10.	Japan	SER E M L	25 ³ 30 ³ 09 01	-02 05 16 57	11 07 18 14	21 27 11 -07	-25 ³ -22 00 20	-02 05 19 -05	-02 05 19 04	-06 -25 -06 -07	-14 17 06 23	14 02 19 ³ 33 ³	04 -14 17 21	15 -03 ³ 25 ³ 35 ³	34 ⁴ -01 33 ⁵ -03	34 -01 22 13	32 ³ 05 17 16	39 ⁵ 19 18 09	10 04 11 -07
11.	Belgium	SER E M L	-06 25 22 ³ 64 ³	-07 14 56 ³ 38	36 -17 -06 -26	-- -- -- --	03 18 21 -02	02 16 09 -12	02 16 09 -12	18 10 09 34 ³	09 -07 -15 18	17 01 16 -23	20 12 ³ 40 ³ -05	23 23 20 -20	-10 -19 02 -02	-48 ⁴ 03 28 -11	-12 -16 23 21	-48 -18 -26 -15	-33 ³ 14 08 -09

¹No "M" group in Colombia
²No "L" group in Peru or England
³p < .05
⁴p < .01
⁵p < .005
⁶See questions 42-44 and 47 in PQ for details.
⁷Low scores indicate in-favor-of.

TABLE 17 Zero-Order Correlation Patterns Between ATDP and Disability Contact-Change

Orientation-Institutional Satisfaction Variables for Four Groups in Ten⁶ Nations

No.	Nation and Group		HP Contact				Change Orientation					Institutional Satisfaction ⁸									
			Amt.	Avoid.	Enjoy.	Alter.	Fluor.	Child Bear.	Birth Control	Auto- mation	Pol. Lead.	Self Change	El. Ed.	Sec. Ed.	Univ.	Busi- ness	Labor	Local Gov.	Nat'l. Gov.	Health Serv.	Churches
1.	United States	SER	-11	-13 ⁵	-25	08	-05	-01	-02	-13	-01	-12	-01	-08 ³	-11	-00	-00	05	-01	-06 ³	-03
		E	-12	-29 ⁴	-33	08	00	-12	-16	-22 ³	-16	-07	-04	-19 ³	-29 ⁵	-11	-07	-04	-16	-20 ³	-00
		M	-00	-27 ³	-02	19	-05	02	-07	-07	-12 ⁴	-12	-21	-18 ³	11	-06	07	-00	20	10	10
		L	-18	-19 ³	-44	39	-14	-07	-09	-10	24 ⁴	-18	02	-19 ³	-05	-05	08	07	-03	-12	-00
3.	Colombia ¹	SER	18	-30 ³	00	-08	-19	-22 ³	03	-00	05	03	11	30 ³	39 ⁵	-08	07	-04	10	12 ³	18
		E	-22 ³	03	-14	-11	12	-02	05	-04	-12	-01 ³	-12	-09	03	-10	-12	-06	-11	-19 ³	04
		M	26	-76 ⁶	-28	-27	08	24	14	-07	-26	29 ³	-06	-09	08	08	-00	-00	03	12	08
		L																			
4.	Peru ²	SER	20	-17	08 ³	09 ⁴	-09	-35 ³	-22	-06	--	-06	-11	-02	-13	-09	-18	03	17 ³	-32 ³	-16
		E	-08	-10	-16 ⁴	-20	00	-02	04	-08	--	-11	-01	10	02	-01	05	-02	13 ³	-03	-00
		M	00	-25	-42 ⁴	-23	08	04	02	-13	--	07	04	11	01	-01	11	07	17	-01	17
		L																			
5.	England ²	SER	26	24	-16	09	-56 ⁴	-33	21	-11	07	04	-17	29 ³	00 ⁵	05	01	08 ³	07	07	-09
		E	21	-03	-28	83	63 ⁵	-10	10	-23	27	-12	23	45 ³	53 ⁵	11	-08	34 ³	11	-18	24 ³
		M	22	18	-1	--	-14	15	25	-01	09	-06	04	00	05	-20	-08	-02	06	36	41 ³
		L																			
6.	Holland	SER	11	-19	-35 ³	18	-03	18	-17	-12	04	24	-09	-12	-02	-15	-06 ⁵	-20	-22	12	-11
		E	-22 ³	01	-19	-51	06	15	-04	-19	-10	04 ³	14	13	15	19	31 ⁵	-06	16	07	13 ³
		M	-33 ³	07	-36 ³	52	-09	09	05	-03	11	26 ³	-18	-22	-11	15	-17	04	00	-10	-23 ³
		L	-06	14	-39 ³	46	-06	-09	07	10	20	13	12	-06	08	-26 ³	29	17	08	-02	05
7.	France	SER	13	-10	00	-20	08	16	04	-18	-12	-04	-29 ³	-40 ⁵	-38 ⁵	22	-00	-11	-07	07	12
		E	-05	-43	-18	-24	03	16	07	-10	-05	-15	02	18	-10	-07	-18	-10	21 ³	-10 ³	18
		M	20	-18	-04	-02	02	16	07	16	-04	-12	10	-05	-17	-03	-22	-30 ³	-24 ³	-30 ³	-02 ³
		L	15	-14	-33	50	06	-11	-06	13	06	18	07	07	03	-10	-26	-39 ³	-17	05	-30 ³
8.	Yugoslavia	SER	-16	-02	01	-24	-07 ⁵	-06	14	-17	05 ⁴	09	09	-00	-23	10	-16	05	-02	00 ³	07 ⁵
		E	21	-06	-10	-17	-50 ⁵	-26	15	-22	-40 ⁴	-05	14	14	13	-28 ³	-07	04	09	28 ³	-51 ⁵
		M	03	-45	-27 ³	-61	-13	-00	20	04	-01	-06	-22	10	05	-06	-08	-09	-09	19	-14
		L	05	-20	-28 ³	-00	-11	10	26 ³	-03	03	01	-04	10	09	02	07	14	07	13	12
9.	Denmark	SER	-13	-11	-33 ³	01	35 ³	12	-02	32 ³	05	-20	21	07	25	-17	01	-05	-06	04	-04
		E	07	-06	07	31	-09	-10	11	12	14	11	-00	13	13	01	12 ³	-22	-06	-06	-01
		M	-10	04	-14	99 ³	23	-10	32 ³	04 ⁵	-15	00	-13	-17 ⁵	-11	15	13	34 ³	08	02	21
		L	08	-19	-25	--	03	-14	01	-53 ⁵	-07	-11	-25	-57 ⁵	-08	10	-16	-07	-01	08	14
10.	Japan	SER	-10	05	-25	-14	34 ³	-00	-07	-05	12	21	-02	08	06	19	27	17	16	39	39 ⁵
		E	-01	13	08 ⁵	62	-10	07	14	04	18	09	21	06	-05	23	10	19	17	-19	-09
		M	-22	-01	-34 ⁵	04	-11 ⁴	-01	01 ⁵	00 ³	06	-18	-01	-06	-02	-03	-11	-04	-01	-08	-16
		L	31	11	28	28	39 ⁴	12	-32 ⁵	32 ³	-05	08	00	18	02	33	18	-02	10	00	11
11.	Belgium	SER	-44 ³	21	-19 ³	16	--	26	-01	07	-00	05	-08	15	35	06	-27	26	34 ³	-12	03
		E	17	-19	-47 ³	48	--	-12	-10	16	-16	-37	-30	-00	-20	04	05	03	03	-01	-13
		M	-02	16	33	--	--	06	07	-27	-32	-16	-14	-18	-51	48 ³	05	09	-09	-13	17
		L	10	-25	17	--	--	25	01	-27	22	-16	-05	21	17	-29	25	-04	-02	21	-18

¹No "M" group in Colombia.

²No "L" group in Peru or England.

³p < .05

⁴p < .01

⁵p < .005

⁶Variables not used in Costa Rica.

⁷Low scores indicate in-favor-of.

⁸See questions 42-44 and 47 in PQ for details.



TABLE 18 Means and F Statistics Comparing High and Low Scores on Importance of Religion with

Attitude Scores in Ten¹Nations

No.	Nation	Scale ² Score Level	N		Mean			F			Sig. of F			
			PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP
1.	United States	High (4+) Low (2)	162 78	163 78	161 78	30.63 30.89	27.39 27.13	45.23 46.11	0.30	0.34	1.61	.58	.56	.21
3.	Colombia	High (4+) Low (2)	152 8	153 8	154 9	30.60 29.87	29.14 28.62	50.97 56.33	0.21	0.15	4.63	.64	.70	.03
4.	Peru	High (4+) Low (2)	211 33	211 34	154 30	30.73 30.69	30.70 30.06	51.35 50.87	0.00	0.82	0.14	.94	.36	.71
5.	England	High (2) Low (4+)	13 22	13 22	11 21	31.69 30.73	26.36 25.23	49.54 48.43	1.48	0.73	0.42	.23	.39	.52
6.	Holland	High (4+) Low (2)	32 40	32 41	30 40	30.16 28.93	30.03 30.15	48.07 48.92	0.02	2.27	0.49	.88	.13	.49
7.	France	High (4+) Low (2)	31 67	31 67	31 64	30.97 30.85	29.77 29.25	49.81 49.31	0.01	0.32	0.14	.91	.57	.70
8.	Yugoslavia	High (3+) Low (2)	2 59	2 59	2 57	34.00 31.76	33.50 31.85	55.50 52.79	0.86	0.61	0.50	.35	.43	.48
9.	Denmark	High (3+) Low (2)	9 71	9 71	9 71	34.67 33.62	29.33 29.03	47.89 47.91	0.85	0.23	0.68	.35	.86	.41
10.	Japan	High (3+) Low (2)	8 113	8 113	8 113	30.62 28.53	27.87 27.26	48.87 51.54	3.53	0.28	1.17	.06	.59	.28
11.	Belgium	High (3+) Low (2)	38 31	38 31	36 30	30.37 31.96	27.68 28.26	47.30 49.30	4.02	0.32	1.83	.04	.57	.18

¹Costa Rica omitted due to coding error.

²See question no. 20 in PQ for meaning of scores.

TABLE 19 Means and F Statistics Comparing High and Low Scores on Adherence to Religion with

Attitude Scores in Nine¹ Nations

No.	Nation	Scale ² Level	N		Mean			F			Sig. of F			
			PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP
1.	United States	High (5+)	122	123	121	30.54	27.31	45.17	0.02	0.03	2.40	.88	.85	.12
		Low (2&3)	85	85	85	30.47	27.40	46.38						
3.	Colombia	High (5+)	77	77	79	32.04	29.91	38.96	0.15	3.26	0.19	.69	.07	.65
		Low (2&3)	96	96	96	31.78	28.66	38.56						
4.	Peru	High (5+)	78	81	78	30.04	29.28	51.76	0.07	0.01	0.51	.78	.93	.47
		Low (2&3)	36	35	38	30.53	29.22	52.79						
5.	England	High (4+)	98	98	71	30.33	31.03	50.97	4.01	3.47	0.26	.04	.06	.60
		Low (2&3)	128	130	109	31.21	30.05	50.45						
6.	Holland	High (5+)	6	6	5	30.83	25.67	50.00	0.18	0.54	0.02	.66	.46	.87
		Low (2&3)	23	23	22	30.39	26.91	50.27						
7.	France	High (5+)	26	26	26	30.50	30.31	48.54	0.29	2.90	0.03	.59	.09	.86
		Low (2)	56	58	57	30.05	29.02	48.72						
8.	Yugoslavia	High (4+)	33	33	33	30.45	29.51	51.67	0.23	0.00	4.86	.63	.94	.03
		Low (2)	79	80	75	30.94	29.45	48.90						
9.	Denmark	High (4+)	2	2	2	31.50	33.50	55.50	0.03	0.38	0.29	.86	.54	.58
		Low (2)	42	42	41	31.93	32.07	53.32						
10.	Japan	High (4+)	7	7	7	32.86	28.28	47.43	0.21	0.07	0.27	.65	.78	.60
		Low (2)	73	73	73	33.42	28.81	48.88						

¹Costa Rica omitted due to coding error. Variable not used in Belgium.

²See question no. 38 in PQ for meaning of score.

The hypothesis for more favorable attitudes of the SER group toward disabled persons was at least partially supported (Table 20) in six of the eleven nations and was statistically significant in the opposite direction from that hypothesized in Peru and England. It is interesting to note that the nations (United States, Costa Rica, Holland, Denmark) with the least differences between groups were also the nations which might generally be regarded as less socially stratified.

In three nations (Peru, England, Yugoslavia) the M group was most positive toward the disabled, and in two nations (Holland and Denmark) the L group was most positive. In five nations (Costa Rica, Colombia, France, Yugoslavia, and Belgium) the L group was least favorable toward the disabled; in two nations (United States and Denmark) the M group was least favorable; in two nations (Peru and England) the SER was least favorable; and in three nations the E group was least favorable.

Some interesting formulations arise from the above within, between, and across nation comparisons of attitudes toward the disabled.

1. The SER group was more positive than the E or L groups in both within and across nation comparisons.
2. The M group was close to the SER group in across nation favorableness toward the disabled.
3. In the within nation comparisons, the M group was more favorable in England than the M group was in the United States--perhaps England's **REMPLOY**¹ is more effective than the Hire the Handicapped program is in the United States.
4. Females were more positive both within and across nations.
5. In no nation was the E group most favorable toward the disabled, and in three nations (Holland, Japan, and Peru) it was least favorable.

H-11: The SER group, within and across nations, will have a higher mean score on progressive attitudes toward education than will persons in other occupational groups.

PATE was measured as in Hypothesis 1. The data are contained in Table 20.

The hypothesis for SER group membership and higher PATE scores was partially confirmed in only three of the eleven nations (United States, Holland, Denmark). In general the data were the reverse of that hypothesized.

¹A phonetic reference label denoting "re-employ the handicapped."

TABLE 20 Comparison of Mean Differences and F Statistics for Attitude Scale Scores for Four Occupational Groups Within and Across Eleven Nations

No.	Nation	Group	N			Means			Adj. Mean			F			Sig. of F			Duncan's Multiple Means Test ¹		
			PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP	PATE	TATE	ATDP
1.	United States	SER	104	105	104	31.17	26.51	44.49	-----	-----	-----	4.59	8.51	0.71	.005	.005	.55	SER>L SER>M E>L E>M	M>SER M>E L>SER M>L	-----
		E	101	101	100	31.15	26.94	45.73	-----	-----	-----									
		M	87	87	87	29.52	28.80	45.79	-----	-----	-----									
		L	100	100	100	30.04	27.54	45.29	-----	-----	-----									
2.	Costa Rica	SER	63	63	64	31.14	28.24	37.91	-----	-----	37.91	3.70	2.93	1.17	.01	.03	.32	-----	-----	-----
		E	115	115	115	32.94	28.14	38.49	-----	-----	38.49									
		M	47	47	48	30.51	29.87	39.46	-----	-----	39.46									
		L	45	45	46	31.15	31.69	40.12	-----	-----	40.12									
3.	Colombia	SER	58	57	61	30.02	28.44	48.07	28.33	30.01	48.14	0.83	8.01	8.51	.44	.0005	.005	-----	L>SER L>E	L>SER E>SER
		E	116	117	110	30.90	28.96	51.94	28.69	30.90	52.14									
		L	35	37	41	30.46	30.81	54.23	31.83	30.47	53.55									
4.	Peru	SER	29	29	29	29.93	30.60	51.59	30.03	30.69	51.70	3.00	0.17	7.60	.05	.84	.001	E>M	-----	SER>M E>M
		E	289	290	201	31.98	30.44	51.77	30.83	30.39	51.68									
		M	63	63	63	29.54	30.02	47.83	29.72	30.20	48.06									
5.	England	SER	23	23	19	31.00	25.61	50.74	-----	-----	-----	1.69	5.84	9.82	.19	.005	.005	-----	SER>E M>E L>E	SER>M E>M
		E	24	24	23	32.08	23.33	49.39	-----	-----	-----									
		M	18	18	18	30.44	27.39	44.67	-----	-----	-----									
6.	Holland	SER	48	48	45	30.50	29.02	48.51	-----	-----	-----	0.57	0.38	0.44	.64	.77	.73	-----	-----	-----
		E	57	59	47	30.42	29.34	48.54	-----	-----	-----									
		M	64	64	62	30.14	28.94	48.32	-----	-----	-----									
		L	41	52	52	31.02	28.63	47.58	-----	-----	-----									
7.	France	SER	66	68	66	31.01	29.88	48.18	31.08	29.91	48.17	7.65	17.21	2.79	.005	.005	.04	E>SER E>M E>L	SER>E L>SER M>E L>E	L>SER
		E	68	68	64	33.03	26.57	49.76	33.12	26.69	49.85									
		M	47	47	47	29.57	30.59	49.62	29.58	30.65	49.63									
		L	37	37	34	30.03	32.03	51.73	29.82	31.90	51.77									
8.	Yugoslavia	SER	47	46	47	32.32	31.85	51.41	32.43	31.84	51.49	0.03	0.16	4.37	.99	.92	.01	-----	-----	L>SER L>E L>M
		E	40	40	40	32.27	32.10	51.89	32.31	32.10	51.91									
		M	46	46	46	32.33	31.67	50.69	32.30	31.68	50.62									
		L	50	59	59	32.35	32.02	54.31	32.34	32.02	54.30									
9.	Denmark	SER	44	44	44	34.50	27.11	49.00	-----	26.90	-----	2.30	15.83	0.79	.08	.0005	.50	-----	M>SER L>SER M>E	-----
		E	47	47	47	33.96	25.76	47.49	-----	25.63	-----									
		M	30	30	30	33.03	31.80	49.60	-----	32.33	-----									
		L	36	36	36	32.89	31.25	47.41	-----	31.22	-----									
10.	Japan	SER	50	50	50	28.50	25.50	49.70	-----	-----	-----	0.69	7.72	1.24	.56	.005	.29	-----	M>SER L>SER E>SER	-----
		E	41	41	40	29.17	26.90	51.43	-----	-----	-----									
		M	84	84	84	28.70	27.94	50.60	-----	-----	-----									
		L	36	36	36	28.25	27.83	50.56	-----	-----	-----									
11.	Belgium	SER	28	28	28	31.78	27.03	45.96	-----	-----	-----	1.42	2.19	4.06	.24	.09	.01	-----	-----	E>SER M>SER L>SER
		E	51	51	46	32.14	27.06	38.82	-----	-----	-----									
		M	19	19	20	30.89	28.05	49.50	-----	-----	-----									
		L	36	36	28	30.68	29.32	50.42	-----	-----	-----									
Across ² Nations		SER	460	501	496	31.09	28.04	46.75	31.03	27.97	46.91	10.40	18.46	5.45	.0005	.0005	.001	SER>M E>M E>L M>L	E>SER M>SER L>SER M>E L>E	E>SER L>SER E>M
	E	887	891	785	31.46	28.66	48.29	31.43	28.63	48.38										
	M	474	481	480	30.11	29.48	47.61	30.19	29.58	47.36										
	L	379	382	382	30.69	29.77	48.31	30.72	29.80	48.22										
Across ² Sex		Female	1,076	1,108	1,076	31.26	28.84	47.34	31.11	20.06	47.34	2.84	3.54	7.02	.08	.06	.008	-----	-----	Ma>Fe
	Male	1,124	1,147	1,124	30.67	28.93	48.20	30.81	28.71	48.20										

¹p < .05

²Across nation multiple means computed as described in Chapter 2.

In retrospect, we regard this as a design flaw. The SER group in all nations was composed of those who work with the disabled or handicapped; i. e. teachers, matrons, medical personnel, etc. It is postulated that the "education segment" of the SER group would score as hypothesized.

H-12: The SER group, within and across nations, will have a lower mean score on traditional attitudes toward education than will persons in other occupational groups.

TATE was measured as in Hypothesis 1. The data are contained in Table 20.

The hypothesis for SER group membership and TATE (H-12) was fully supported in the across nation comparisons in that the SER group did score lower (Table 20) than the E, M, or L groups. As in Hypothesis 11, the difference likely would have been even greater had the "education segment" of the SER group been partialled out and used as the comparison group.

The data of Table 20 also indicate that cross-nationally females had more progressive and less-traditional attitudes toward education than males, but only at the .08 and .06 significance levels.

Within nation analysis of attitudes toward education (Table 20) was revealing. In the United States, the M group was the least progressive and the most traditional, while in Yugoslavia the M group was the least progressive and the E group was the most traditional. Although some of the differences were not statistically significant, the profiles are interesting. Perhaps American management represents the relentless Hegelian dialectic of change: one segment preserving the status quo, while one segment pushes for innovation and change.

H-13: The SER group, within and across nations, will have a higher mean score than will persons in other occupational categories in respect to the value of (a) Benevolence, and (b) lower mean scores in respect to the values of Leadership (i. e. dominance) and Recognition.

Benevolence was measured as in Hypothesis 1, Leadership as in Hypothesis 2, and Recognition as in Hypothesis 3. The data are contained in Tables 21-23 respectively.

The hypothesis for SER group membership in Benevolence (H-13a) was supported (Table 21) in five nations, Colombia, England, Holland, Japan, and Belgium; was directional in the United States, Costa Rica, and Peru; and was opposite that hypothesized only in France, Yugoslavia, and Denmark. Only in Denmark did a group (i. e. education) score statistically higher on Benevolence than the SER group. In the across nation comparisons the hypothesis was also fully supported (Table 21). Females, across nations, scored significantly higher than males.

TABLE 21 Comparison of Mean Differences and F Statistics for Benevolence Value Scores for Four

Occupational Groups Within and Across Eleven Nations

No.	Nation	Group	N	Mean Benev.	Adj. Mean	<u>F</u>	Sig. of <u>F</u>	Duncan's Multiple Means Test ¹
1.	United States	SER	102	20.13	-----	1.67	.17	-----
		E	99	19.26	-----			
		M	87	17.67	-----			
		L	99	17.39	-----			
2.	Costa Rica	SER	64	19.97	-----	0.34	.80	-----
		E	110	19.68	-----			
		M	49	19.49	-----			
		L	41	18.09	-----			
3.	Colombia	SER	59	21.81	-----	5.70	.005	SER>L SER>E
		E	117	20.08	-----			
		L	41	18.80	-----			
4.	Peru	SER	29	19.52	-----	4.40	.01	E>M
		E	15	17.73	-----			
		M	62	17.18	-----			
5.	England	SER	19	21.79	-----	4.83	.01	SER>E SER>M
		E	24	17.92	-----			
		M	17	17.47	-----			
6.	Holland	SER	44	19.64	19.14	9.16	.005	SER>M E>M L>M
		E	58	18.12	17.81			
		M	63	15.08	15.70			
		L	49	18.53	18.56			
7.	France	SER	64	20.75	20.77	2.24	.08	-----
		E	66	20.21	20.30			
		M	44	21.36	21.36			
		L	36	19.05	18.93			
8.	Yugoslavia	SER	45	19.11	-----	.45	.72	-----
		E	38	19.18	-----			
		M	45	18.93	-----			
		L	58	18.29	-----			
9.	Denmark	SER	44	20.27	20.21	2.59	.05	E>SER E>M
		E	46	22.46	22.41			
		M	27	19.18	19.35			
		L	26	20.50	20.50			
10.	Japan	SER	50	23.22	-----	6.39	.005	SER>L SER>M SER>E
		E	51	21.57	-----			
		M	18	20.11	-----			
		L	26	18.08	-----			
11.	Belgium	SER	27	22.22	-----	5.01	.005	SER>L E>L
		E	51	21.57	-----			
		M	18	20.11	-----			
		L	26	18.08	-----			
Across ² Nations		SER	448	20.44	20.16	10.82	.0005	SER>E SER>M SER>L E>M E>L
	E	836	19.50	19.35				
	M	466	18.01	18.42				
	L	374	18.24	18.38				
Across ² Sex		Female	1,037	20.11	19.89	36.67	.0005	Fe>Ma
	Male	1,087	18.23	18.44				

¹p < .05

²See footnote 2, Table 20.

TABLE 22 Comparison of Mean Differences and F Statistics for Leadership Value Scores for Four Occupational Groups Within and Across Eleven Nations

No.	Nation	Group	N	Mean Lead.	Adj. Mean.	<u>F</u>	Sig. of <u>F</u>	Duncan's Multiple Means Test ¹
1.	United States	SER	102	10.08	-----	5.25	.005	M>SER M>E L>SER M>L
		E	99	10.27	-----			
		M	87	16.38	-----			
		L	99	13.88	-----			
2.	Costa Rica	SER	64	10.47	-----	4.15	.01	M>SER M>L M>E
		E	110	11.02	-----			
		M	49	14.10	-----			
		L	41	10.63	-----			
3.	Colombia	SER	59	13.46	-----	0.63	.54	-----
		E	117	14.08	-----			
		L	41	14.12	-----			
4.	Peru	SER	28	13.00	12.75	14.92	.0005	M>SER M>E
		E	247	12.78	12.92			
		M	62	17.52	17.05			
5.	England	SER	19	13.37	-----	11.20	.005	M>SER M>E
		E	24	13.54	-----			
		M	17	21.35	-----			
6.	Holland	SER	44	13.54	14.67	9.54	.005	M>SER M>L
		E	58	14.84	15.55			
		M	63	18.49	17.06			
		L	49	13.69	13.67			
7.	France	SER	64	13.58	13.53	3.88	.01	SER>E M>E
		E	66	11.14	10.86			
		M	44	13.43	13.32			
		L	36	11.19	11.53			
8.	Yugoslavia	SER	45	10.38	10.72	1.46	.23	-----
		E	37	8.65	8.79			
		M	45	10.78	10.41			
		L	58	10.60	10.54			
9.	Denmark	SER	44	11.47	-----	1.68	.17	-----
		E	46	10.15	-----			
		M	27	13.33	-----			
		L	26	9.96	-----			
10.	Japan	SER	50	10.28	-----	2.62	.05	M>E M>SER
		E	41	10.12	-----			
		M	84	13.12	-----			
		L	36	12.86	-----			
11.	Belgium	SER	27	13.48	-----	1.01	.39	-----
		E	51	12.37	-----			
		M	18	14.55	-----			
		L	26	13.61	-----			
Across ² Nations		SER	446	11.56	12.13	14.63	.0005	M>SER M>E M>L
	E	835	12.11	12.41				
	M	466	15.24	14.38				
	L	372	12.56	12.26				
Across ² Sex		Female	1,034	10.97	11.24	12.38	.0005	Ma>Fe
	Male	1,085	14.47	14.21				

¹p < .05

²See footnote 2, Table 20.

TABLE 23 Comparison of Mean Differences and F Statistics for Recognition Value Scores for Four

Occupational Groups Within and Across Eleven Nations

No.	Nation	Group	N	Mean Rec.	Adj. Mean	<u>F</u>	Sig. of <u>F</u>	Duncan's Multiple Means Test ¹
1.	United States	SER	102	10.33	-----	0.47	.71	-----
		E	99	10.49	-----			
		M	87	10.83	-----			
		L	99	11.04	-----			
2.	Costa Rica	SER	64	8.69	-----	1.64	.18	-----
		E	110	9.66	-----			
		M	49	9.04	-----			
		L	41	10.29	-----			
3.	Colombia	SER	59	7.14	-----	7.74	.005	L>SER L>E
		E	117	7.45	-----			
		L	41	9.54	-----			
4.	Peru	SER	28	8.61	8.54	0.48	.62	-----
		E	247	8.81	8.85			
		M	62	8.48	8.36			
5.	England	SER	19	6.05	-----	4.82	.01	E>SER
		E	24	10.12	-----			
		M	17	8.00	-----			
6.	Holland	SER	44	5.79	5.86	3.29	.02	M>SER
		E	58	6.40	6.67			
		M	63	6.67	6.80			
		L	49	6.57	6.64			
7.	France	SER	64	6.03	6.02	5.16	.005	L>SER L>E L>M L>M
		E	66	5.77	5.79			
		M	45	5.48	5.51			
		L	36	8.08	8.14			
8.	Yugoslavia	SER	45	7.42	-----	5.82	.0005	L>E L>M L>SER
		E	38	7.89	-----			
		M	45	7.00	-----			
		L	58	10.03	-----			
9.	Denmark	SER	44	7.36	7.72	5.01	.005	SER>E SER>M SER>L
		E	46	6.33	6.22			
		M	27	4.70	5.17			
		L	26	5.85	6.07			
10.	Japan	SER	50	7.00	-----	2.91	.03	L>SER L>SER L>E
		E	41	7.32	-----			
		M	84	7.96	-----			
		L	36	8.81	-----			
11.	Belgium	SER	27	6.37	-----	1.54	.21	-----
		E	51	5.92	-----			
		M	18	6.94	-----			
		L	26	7.58	-----			
Across ² Nations		SER	445	7.80	7.87	11.17	.0005	E>SER L>SER L>E L>M
	E	834	8.32	8.36				
	M	464	8.04	7.94				
	L	371	9.37	9.34				
Across ² Sex		Female	1,035	8.14	8.16	3.41	.06	Ma>Fe
	Male	1,079	8.53	8.51				

¹p < .05

²See footnote 2, Table 20.

The hypothesis for SER group membership and Leadership (H-13b--i. e. dominance over others) was at least partially supported (Table 22) in five nations--the United States, Costa Rica, Peru, England, and Holland. Only in France did the SER group score significantly higher than any other group in dominance. In the across nation comparisons the SER group scored lower than any other group, but was significantly different only from the M group. Females also scored significantly lower on dominance than males.

The hypothesis for SER group membership and Recognition value (H-13c) was at least partially supported (Table 23) in four nations, Colombia, England, Holland, and Japan; was directional in three nations, United States, Costa Rica, and Peru; and was directionally reverse from that hypothesized in four nations, France, Yugoslavia, Denmark, and Belgium. None of the "reversed" hypotheses were significantly so. In the across nation comparison (Table 23) the SER group scored lower on the need for Recognition than the E or L groups, but males were not significantly higher on need for Recognition than females.

H-14: The SER group, within and across nations, will be more favorable than other occupational groups toward the following change orientation measures: (a) fluoridation, (b) child-rearing practices, (c) birth control practices, (d) automation, and (e) self-change.

Change orientation was measured by direct questions in the Personal Questionnaire (see Variable list, Appendix C.1). The data for Hypothesis 14 are contained in Table 24.

The hypothesis for SER membership and change orientation (H-14) is complex and difficult to interpret. The hypothesis deals with five change variables and four groups in each of the eleven nations. The data can be analyzed within nations (the rows of F ratios in Table 24) or across nations (the columns of F ratios in Table 24).

The across nation comparisons indicate that males are more change oriented than females even in regard to birth control and child-rearing practices. The education variable may account for this as it was not held constant in the analysis. The SER group (across nations) scores were significantly more in favor of birth control than the E or L groups and equal with the M group. This also agrees with the findings of Mader (1967) that teachers are more in favor of birth control in proportion to the severity of the level of handicapping conditions with which they work; i. e. teachers of severely mentally retarded are more in favor of birth control than teachers of moderately retarded. Close inspection of Table 24 also indicates that the variables differentiate between the groups within the

TABLE 24 Comparison of Mean Differences and F Statistics on Five Attitude Change Variables for Four Occupational Groups Within and Across Ten¹Nations

Nation	Group	Sample Size					Mean					F					Sig. of F				
		Fluori- dation	Child Rear.	Birth ³ C'ntl.	Auto.	Self Change	Fluori- dation	Child Rear.	Birth ³ C'ntl.	Auto.	Self Change	Fluori- dation	Child Rear.	Birth ³ C'ntl.	Auto.	Self Change	Fluori- dation	Child Rear.	Birth ³ C'ntl.	Auto.	Self Change
1. United States	SER	105	105	105	105	104	3.62	2.98	1.63	3.23	2.78	2.64	1.03	1.89	1.29	---	.05	.38	.13	.28	---
	E	101	101	100	101	109	3.56	2.92	1.50	3.39	2.44										
	M	87	87	87	87	87	3.27	2.66	1.64	3.21	2.49										
	L	100	99	100	100	100	3.45	2.82	1.75	3.18	2.43										
3. Colombia	SER	66	67	67	68	68	3.59	3.27	2.09	3.21	2.50	13.63	5.84	0.11	6.00	---	.005	.005	.89	.005	---
	E	214	123	124	120	123	3.64	3.22	2.09	3.36	2.30										
	M	46	46	46	45	43	2.98	2.74	2.15	2.87	2.39										
	L	---	---	---	---	---	---	---	---	---	---										
4. Peru	SER	30	30	30	30	29	2.87	2.97	2.07	3.17	2.34	2.49	3.11	1.92	2.08	---	.06	.03	.13	.10	---
	E	17	17	17	17	---	3.35	3.18	2.36	3.14	---										
	M	62	53	63	63	63	3.39	3.41	1.98	3.27	2.89										
	L	---	---	---	---	---	---	---	---	---	---										
5. England	SER	23	22	22	22	21	2.96	3.09	1.50	3.41	2.48	4.47	0.16	2.84	1.46	1.42	.02	.85	.06	.24	---
	E	23	24	24	24	24	3.61	3.00	1.62	3.25	2.33										
	M	18	18	18	18	18	3.67	3.11	1.22	3.55	2.78										
	L	---	---	---	---	---	---	---	---	---	---										
6. Holland	SER	48	48	47	48	47	3.73	3.10	1.59	2.94	2.45	4.31	2.33	0.27	5.77	0.17	.91	.07	.85	.005	---
	E	59	59	58	58	59	3.63	3.07	1.55	2.81	2.46										
	M	62	64	64	64	64	3.69	3.03	1.55	3.30	2.50										
	L	52	51	50	51	52	3.29	2.84	1.50	3.04	2.40										
7. France	SER	69	69	68	68	68	2.90	2.46	1.66	2.27	2.88	2.13	2.25	7.60	0.72	0.80	.10	.08	.005	.52	---
	E	68	69	68	67	69	3.26	2.53	1.42	2.28	2.59										
	M	48	49	49	49	49	3.02	2.61	1.96	2.26	2.39										
	L	37	36	37	37	37	3.22	2.61	1.76	2.03	2.49										
8. Yugoslavia	SER	47	47	47	47	46	2.85	2.34	1.32	3.08	1.69	4.58	2.61	0.16	0.57	1.85	.005	.05	.92	.64	---
	E	40	39	40	40	40	3.27	2.77	1.32	3.05	1.70										
	M	46	46	46	46	48	3.26	3.06	1.33	3.28	2.02										
	L	59	59	59	59	59	2.73	2.88	1.37	2.95	1.78										
9. Denmark	SER	44	44	44	42	44	3.18	2.89	1.52	3.02	2.64	2.53	0.43	1.42	2.22	1.22	.06	.74	.24	.08	---
	E	47	47	45	47	47	3.47	3.04	1.43	3.11	2.68										
	M	30	30	30	30	30	3.67	2.93	1.37	3.47	2.77										
	L	28	28	28	28	28	3.25	2.86	1.68	3.28	2.66										
10. Japan	SER	50	50	50	50	50	2.68	2.92	1.98	3.04	2.64	0.70	0.11	1.09	2.59	---	.56	.95	.36	.05	---
	E	41	41	41	41	41	2.71	2.88	2.10	3.32	2.63										
	M	80	80	80	80	84	2.91	2.91	1.86	3.44	2.56										
	L	36	36	36	36	36	2.94	2.94	2.17	3.31	2.67										
11. Belgium	SER	---	28	28	27	27	---	2.71	1.57	2.55	2.63	---	0.42	1.08	4.43	1.14	---	.74	.36	.01	---
	E	---	51	51	51	51	---	2.59	1.47	2.16	2.37										
	M	---	20	20	20	20	---	2.75	1.65	3.00	2.25										
	L	---	28	28	28	27	---	2.53	1.71	2.53	2.41										
Across ² Nations	SER	414	414	412	413	411	3.25	2.87	1.69	2.99	2.53	4.61	10.37	9.27	3.33	---	.003	.0005	.0005	.01	---
	E	777	779	778	773	775	3.37	3.07	1.90	3.08	2.48										
	M	421	425	425	425	429	3.31	2.98	1.69	3.20	2.52										
	L	346	343	344	344	343	3.16	2.81	1.76	2.98	2.41										
Across ² Sex	Female	951	951	951	951	951	3.28	2.93	1.87 ³	2.99	2.48	0.90	2.75	16.85	9.23	0.52	.34	.09	.0005	.003	---
	Male	1,007	1,010	1,008	1,007	1,007	3.31	2.99	1.71 ³	3.14	2.50										

¹These variables not used in Costa Rica.

²See footnote 2, Table 20.

³Low scores indicate in-favor-of.

lesser developed nations better than in the more highly developed ones. In summary, Hypothesis 14 received minimal support but some interesting cross-national findings merit further exploration.

Relating Attitudes and Modernization Level

H-15: Attitudes toward (a) progressive education and toward (b) disabled persons will be more positive as one moves from low to high on the socio-economic-educational continuum of development.

PATE and ATDP were measured as in Hypothesis 1, and socio-economic-educational development was measured by ranking the nations from low to high on standard indices. Table 25 contains the rank order positions of the ten nations on the selected "development" indices and Tables 26-29 contain the rank orders and rank order correlations between 45 social-psychological variables and the "development" indices.

The hypothesis relating modernization level and PATE (H-15a) was supported for the SER group (Table 26) on one of the indices--per capita income, but not for the E, M, or L groups. The relationship between TATE and modernization, however, was much clearer; there was a strong relationship between high traditional attitudes and low development in all four groups.

The hypothesis relating ATDP and modernization level (H-15b) was supported for the E and M groups on at least some of the indices (Tables 26-29) and was directional for the SER and L groups. It appears there is continued support for the assertion that the physically disabled are viewed more positively in developed nations. This is in agreement with Jordan's earlier position (1964a) that the physically disabled are viewed more positively in technically advanced societies and the mentally retarded more so in agrarian societies. This is further supported by the high relationship between level of development and amount of contact with the mentally retarded--i. e. variable number 20. The data indicate that as nations become more developed there is more contact with mentally retarded persons.

Hypothesis 15 relates to only two of the variables in Tables 26-29: attitudes toward progressive education and attitudes toward physically handicapped persons. Many other interesting relationships, however, are contained in the tables.

A strong relationship existed between the value of Support and socio-economic development for the SER, M, and L groups. The implication is that national development calls for supportive interpersonal behavior and that highly individualistic societies are low in development. High intensity measures are also related to low development scores. Certainty or dogmatism apparently does not

TABLE 25 Rank Order of Development for Ten Nations on Four Socio-Economic Variables⁶

Rank ¹	Per Capita Income ²	Percent Literacy ³	Percent of National Income On Education ⁴	Consumption of Newspaper Per Inhabitant ⁵ (kilograms)	Average ⁷ Development Rank
9	U. S.	U. S.	Japan	U. S.	U. S.
8	Denmark	England	Holland	England	Denmark
7	France	Japan	Denmark	Denmark	England
6	England	Holland	Yugoslavia	Holland	Japan ⁸
5	Holland	Denmark	U. S.	Japan	Holland ⁸
4	Japan	Yugoslavia	England	France	France
3	Yugoslavia	Costa Rica	France	Costa Rica	Yugoslavia
2	Costa Rica	France	Costa Rica	Colombia	Costa Rica
1	Colombia	Colombia	Peru	Peru	Colombia
0	Peru	Peru	Colombia	Yugoslavia	Peru

¹Rank of 0 to 9 from low to high.

²U. N. Yearbook, 1966, 493-496.

³UNESCO, 1966, 36-46.

⁴UNESCO, 1966, 342-364.

⁵UNESCO, 1966, 544-551.

⁶Worldmark, 1960.

⁷Average development rank from other four measures.

⁸Japan and Holland tied for development rank; Japan assigned higher rank due to its rapid and continuing rise.

TABLE 26 Rank Order¹ and Rank Order Correlations Between 45 Socio-Psychological Variables and Socio-Economic Indices for Ten Nations for SER Respondents

No.	Variable	Rank ² Order Scores ³									Rho					
		Low					High				Inc ⁹	Lit ¹⁰	Ed ¹¹	New ¹²	Dev ¹³	
		0	1	2	3	4	5	6	7	8						9
1.	H. P. Cont.	CR	US	C	F	H	D	J	E	Y	P	-29	-10 ₄	16	-23	-15
2.	H. P. Int.	CR	US	E	H	J	P	D	Y	F	P	-19	-56 ₄	-20	-43 ₇	-37 ₄
3.	Ed. T. Cont.	E	J	US	D	CR	C	H	F	P	Y	-34	-59 ₄	-21	-86 ₄	-66 ₄
4.	Ed. T. Int.	E	US	CR	H	J	P	D	F	Y	C	-31 ₄	-65 ₄	-21	-59 ₄	-51
5.	Ed. P. Cont.	J	P	C	H	E	F	CR	US	Y	D	63	36	17	-11 ₄	37
6.	Ed. P. Int.	J	E	P	H	US	CR	F	D	Y	C	09 ₈	-26 ₅	-22 ₄	-54 ₄	-23 ₇
7.	Support	C	P	Y	J	CR	E	H	F	D	Y	93 ₇	71 ₅	55 ₄	57 ₅	83 ₈
8.	Conform	D	E	US	H	F	J	CR	Y	P	C	-86 ₇	-81 ₅	-61 ₄	-73 ₅	-92 ₈
9.	Recog.	H	F	E	J	C	Y	D	P	CR	US	-05 ₄	-01	-28 ₄	-11	-04 ₄
10.	Indep.	C	P	US	CR	J	Y	H	F	E	D	64 ₄	48	59 ₄	31	58 ₄
11.	Benev.	Y	H	CR	US	J	P	D	F	C	E	09	-15	-40	26	08
12.	Leader.	Y	J	CR	US	D	P	E	F	C	H	06	-09	-16	01	-06
13.	Ed. Amt.	H	P	C	US	F	D	J	Y	E	H	23	28 ₆	22 ₄	62 ₄	30 ₄
14.	Ed. Enj.	P	D	C	Y	F	J	H	US	E	E	44	80 ₆	33 ₄	23 ₄	60 ₄
15.	Ed. Alt.	J	D	P	H	Y	US	F	C	E	E	17 ₅	13	-59 ₄	-12	-04
16.	H. P. Amt.	J	C	P	H	CR	US	Y	F	E	D	75 ₅	43	19	09	51
17.	H. P. Avoid	CR	Y	J	F	D	E	US	C	P	H	05	07 ₄	-05	09	02
18.	H. P. Enjoy	J	Y	F	P	CR	D	C	US	H	E	35	55 ₄	01	32	39
19.	H. P. Alt.	J	Y	CR	F	US	C	P	D	H	E	22 ₄	30 ₄	04 ₅	15 ₄	25 ₅
20.	MR Amount	P	C	E	F	H	Y	D	J	US	D	60	62 ₄	69 ₅	63 ₄	73 ₅
21.	EDP Amt.	F	J	C	Y	P	E	H	US	D	Y	50 ₄	65 ₅	41	30	63 ₅
22.	Age	P	C	CR	H	F	D	J	US	Y	E	61 ₄	75 ₅	51 ₄	48	70 ₅
23.	Rel. Imp.	Y	J	D	CR	F	H	E	US	P	C	-19	-17	-61 ₄	-02	-21
24.	Ed. Amt.	Y	P	D	F	J	H	E	C	CR	US	19	39	-18 ₅	49	29
25.	Rel. Adh.	Y	J	H	D	F	E	CR	P	C	US	-05	-13	-71 ₅	04	-12
26.	Other Or'n.	J	Y	P	US	H	C	F	D	E	J	48	26	-19	12 ₄	33
27.	Future Plan.	H	P	Y	D	E	F	C	US	J	J	18	10	-19	59 ₄	30
28.	El. Sch.	C	H	P	D	E	US	Y	F	J	J	28	13	22	33	24
29.	Sec. Sch.	E	C	H	Y	D	P	F	US	J	J	17	-07	17	36	17
30.	Univ.	E	P	H	D	C	Y	F	US	J	J	20	00	16	31 ₅	17 ₄
31.	Business	Y	E	C	P	J	CR	F	D	H	US	44	40	50	69 ₅	56 ₄
32.	Labor	E	C	H	US	J	D	P	CR	Y	F	02	-42	-04	-47	-29
33.	Loc. Gov.	E	D	F	H	C	US	Y	P	J	J	-51	-41	-22	-42	-52
34.	Nat. Gov.	E	D	F	H	C	US	Y	P	J	J	-64	-46	-04 ₆	-19 ₄	-48 ₄
35.	Health Serv.	C	E	P	Y	CR	US	F	H	D	J	45 ₄	32 ₄	77 ₆	50	53 ₄
36.	Churches	E	D	Y	H	US	J	F	C	P	CR	-63 ₄	-62 ₄	-40	-14 ₄	-56 ₄
37.	Fluoridation	P	J	Y	F	D	E	C	US	H	C	36	54	03	70	56
38.	Child Rear.	Y	F	D	P	J	US	E	H	C	P	-02	24 ₄	-23 ₄	19	13
39.	Birth Control	Y	E	H	D	US	F	J	C	P	P	-28	-61 ₄	-66 ₄	-14	-39
40.	Automation	F	H	D	J	P	Y	C	US	E	E	-02	38	-20 ₄	43	28 ₄
41.	Pol. Lead.	F	E	C	Y	H	D	US	J	J	US	39	57	63	39 ₇	61 ₄
42.	Self Change	Y	P	H	C	E	F	D	J	US	US	54	37	19	85 ₇	68 ₄
43.	Local Aid	E	D	US	J	C	C	Y	E	E	US	-50	-60	15	20	-50
44.	Fed. Aid	US	F	H	D	J	C	Y	E	E	US	-54	-17	-16 ₅	-32	-35
45.	Ed. Plan.	F	US	J	C	E	D	H	Y	Y	US	-41	05	76 ₅	-24	-16

¹Based on adjusted means in Table A. 1.

²Underlined scores indicate ties.

³Consult questions in research instruments to ascertain meaning of "low" and "high." High is sometimes positive or in-favor-of; sometimes reversed.

⁴P < .05

⁵P < .01

⁶P < .005

⁷P < .001

⁸P < .0005

⁹Per capita income

¹⁰Percentage literacy.

¹¹Percentage income spent on education.

¹²Newsprint per inhabitant.

¹³Average development rank.

TABLE 27 Rank Order¹ and Rank Order Correlations Between 45 Socio-Psychological Variables and Socio-Economic Indices for Ten Nations for E Respondents

No.	Variable	Rank ² Order Scores ³										Rho				
		Low					High					Inc ⁹	Lit ¹⁰	Ed ¹¹	New ¹²	Dev ¹³
		0	1	2	3	4	5	6	7	8	9					
1.	H. P. Cont.	CR	US	D	H	F	E	Y	J	P	C	-60 ⁴	-43 ⁴	-25	-48	-51
2.	H. P. Int.	CR	E	J	H	US	D	P	Y	F	C	-14 ⁵	-59 ⁴	-36	-42 ⁵	-37 ⁵
3.	Ed. T. Cont.	E	D	F	J	US	CR	C	H	P	Y	-66 ⁷	-45 ⁵	-17	-71 ⁷	-66 ⁵
4.	Ed. T. Int.	E	US	H	J	D	P	CR	F	Y	C	-55 ⁴	-81 ⁵	-47	-82 ⁷	-73 ⁵
5.	Ed. P. Cont.	J	H	C	P	US	Y	E	CR	F	D	41	-10 ⁵	-20 ⁴	10	19
6.	Ed. P. Int.	E	H	J	US	P	Y	F	D	CR	C	-30 ⁷	-67 ⁵	-53	-48 ⁶	-47 ⁵
7.	Support	C	J	P	Y	CR	F	H	E	D	US	82 ⁷	57 ⁵	24 ⁴	77 ⁷	84 ⁷
8.	Conform	E	D	H	US	F	J	CR	Y	P	US	82 ⁷	73 ⁵	55	85 ⁷	84 ⁷
9.	Recog.	F	D	H	US	J	Y	E	D	H	F	-14 ⁵	31	-34 ⁴	21	05
10.	Indep.	C	P	CR	US	J	Y	E	D	H	F	67 ⁵	34	57	39	51
11.	Benev.	H	E	J	P	US	Y	CR	C	F	D	11	-47	-34	-22	-11
12.	Leader.	Y	D	US	J	F	CR	P	E	C	H	-38	-21	-37	02	-37
13.	Ed. Amt.	H	C	F	Y	US	D	P	E	J	US	02	32	20	22	30
14.	Ed. Enj.	Y	D	H	E	J	C	F	P	P	US	05	-07	-53 ⁸	13	-07
15.	Ed. Alt.	J	D	Y	H	US	F	P	E	C	D	-27 ⁷	-33	-90	-08 ⁴	-40 ⁵
16.	H. P. Amt.	J	C	P	CR	H	Y	F	E	P	H	82 ⁷	44	20	59 ⁴	68 ⁵
17.	H. P. Avoid	CR	D	J	US	Y	F	E	P	H	C	-36	-34	-39	-19	-42
18.	H. P. Enjoy	P	E	J	Y	F	C	H	US	CR	D	-42	15	4	32	33
19.	H. P. Alt.	CR	J	Y	US	P	D	C	H	F	E	28 ⁴	05	-38	38	16
20.	MR Amount	J	H	P	C	Y	US	E	D	F	US	63 ⁴	03	-31	28 ⁵	33 ⁴
21.	EDP Amt.	J	Y	C	F	P	H	D	US	E	J	60 ⁴	47 ⁴	-10	77 ⁵	58 ⁴
22.	Age	H	F	C	CR	D	Y	P	E	US	C	13	53	26 ⁴	31	41
23.	Rel. Imp.	Y	F	J	D	H	CR	E	US	P	US	-33	-18	-63 ⁴	09	-25
24.	Ed. Amt.	C	Y	D	F	H	E	CR	J	P	US	10	34	10	31	21
25.	Rel. Adh.	Y	F	J	H	E	D	C	P	CR	US	-07 ⁴	-01	-47	23	-01
26.	Other Or'n.	J	Y	P	H	US	C	E	F	D	US	58 ⁴	-02	-33	43	33
27.	Future Plan.	H	Y	P	F	E	D	C	J	US	D	23	39 ⁴	-01	43	46 ⁴
28.	El. Sch.	H	P	C	Y	D	F	E	US	J	US	51	64 ⁴	26	49	63 ⁴
29.	Sec. Sch.	H	P	E	C	F	Y	US	D	Y	US	40	33	43	18	50
30.	Univ.	H	P	E	C	F	D	Y	US	J	US	40	43	37	16	46
31.	Business	E	Y	P	F	CR	C	J	D	H	US	43	37	42	51	46
32.	Labor	P	H	C	US	J	Y	D	E	CR	F	38	10	-01	11	24
33.	Loc. Gov.	Y	H	C	D	P	US	F	E	J	CR	09	20	-10	25	15
34.	Nat. Gov.	F	D	C	Y	H	J	E	P	US	D	07 ⁴	45 ⁴	03 ⁴	32 ⁴	20 ⁵
35.	Health Serv.	C	P	Y	US	CR	H	F	E	J	D	64 ⁴	53 ⁴	63 ⁴	61 ⁴	69 ⁵
36.	Churches	E	H	F	D	Y	US	E	J	C	P	-64 ⁴	-39	-47	-54 ⁴	-58 ⁴
37.	Fluoridation	J	P	F	Y	D	US	E	C	C	US	23	27	-34	38	29
38.	Child Rear.	Y	F	J	US	E	D	H	P	C	US	-35	-33	-38	03	-27
39.	Birth Control	Y	F	D	H	US	E	C	J	C	US	-47	-07	-23	02	-20
40.	Automation	F	H	Y	P	D	E	J	C	J	US	10	42	-08 ⁵	42	38
41.	Pol. Lead.	E	F	US	C	H	Y	D	J	F	US	-28	-09	76 ⁵	-28	-02
42.	Self Change	Y	C	E	US	H	P	J	D	F	US	37	-08 ⁴	22	18 ⁵	20
43.	Local Aid	E	US	D	J	C	H	P	J	D	F	-70	-80	-00	-90 ⁵	-70
44.	Fed. Aid	US	E	J	D	F	C	Y	E	C	US	-44 ⁴	-38	-45	-39	-43
45.	Ed. Plan.	F	US	J	D	Y	E	H	C	C	US	-64 ⁴	-24	-09	-21	-42

¹Based on adjusted means in Table A. 3.

²Underlined scores indicate ties.

³Consult questions in research instruments to ascertain meaning of "low" and "high." High is sometimes positive or in-favor-of; sometimes reversed.

⁴p < .05

⁵p < .01

⁶p < .005

⁷p < .001

⁸p < .0005

⁹per capita income.

¹⁰Percentage literacy.

¹¹Percentage national income spent on education

¹²Newsprint per inhabitant.

¹³Average development rank.

TABLE 28 Rank Order¹ and Rank Order Correlations Between 45 Socio-Psychological Variables and

Socio-Economic Indices for Nine Nations for M Respondents

No.	Variable	Rank ² Order Scores ³								Rho					
		Low				High				Inc ⁹	Lit ¹⁰	Ed ¹¹	New ¹²	Dev ¹³	
		0	1	2	3	4	5	6	7						8
1.	H. P. Cont.	CR	E	US	P	H	F	D	J	Y	05	-08	62 ⁴	-33	05
2.	H. P. Int.	CR	E	H	P	US	D	J	F	Y	20	-11 ⁵	35	-30 ⁴	08
3.	Ed. T. Cont.	E	J	US	H	CR	P	F	Y	D	-06	-63 ⁵	-13	-50 ⁴	-31
4.	Ed. T. Int.	E	H	P	US	J	CR	F	Y	D	14	-31	12	-33	-01
5.	Ed. P. Cont.	J	US	P	F	H	E	CR	Y	D	01	-17	-03	-16	-05
6.	Ed. P. Int.	H	P	E	US	J	F	CR	Y	D	17 ⁵	-14 ⁵	08 ⁵	-21 ⁴	09 ⁷
7.	Support	CR	P	F	H	E	Y	J	US	D	67 ⁵	67 ⁵	70 ⁵	53 ⁸	82 ⁷
8.	Conform	E	H	US	D	F	J	P	CR	Y	-67 ⁵	-64 ⁵	-27	-87 ⁴	-70 ⁵
9.	Recog.	D	F	H	Y	J	E	P	CR	US	-20	22	-42 ⁵	10	-05
10.	Indep.	F	CR	US	J	P	E	Y	D	H	05	31	52 ⁵	19	26
11.	Benev.	H	P	E	US	J	Y	D	CR	F	19	-28	-17	-19 ⁴	-03
12.	Leader.	Y	J	D	F	P	CR	US	H	E	19 ⁴	34	-27	56 ⁴	20
13.	Ed. Amt.	J	H	P	Y	US	D	F	E		54 ⁴	07	-47	34	32
14.	Ed. Enj.	D	Y	CR	P	J	H	US	F	E	36	37	-13	49	28
15.	Ed. Alt.	CR	J	US	H	Y	E	P	D	F	23 ⁵	-40	-23	-06 ⁵	-03 ⁴
16.	H. P. Amt.	J	P	Y	H	CR	D	F	US	E	71 ⁵	40	-25	67 ⁴	56 ⁴
17.	H. P. Avoid	CR	D	F	J	Y	US	E	H	P	-22	08	-05	01	-12
18.	H. P. Enjoy	J	Y	E	P	US	H	F	CR	D	31	-26	-25	21	06
19.	H. P. Alt.	CR	J	E	H	US	Y	F	P	D	19	-42	-13	-15	-03
20.	MR Amount	E	P	J	Y	US	D	H	F		50 ⁵	-12	23	11	16
21.	EDP Amt.	P	J	Y	D	US	H	E	F		66 ⁵	28 ⁴	-08	51 ⁷	40
22.	Age	P	Y	J	CR	F	US	H	E	D	78 ⁵	56 ⁴	32	83 ⁷	76 ⁶
23.	Rel. Imp.	Y	J	H	D	CR	E	F	US	P	73 ⁶	27	-28	64 ⁵	49
24.	Ed. Amt.	E	Y	D	H	CR	J	US	P	F	-06	-42	-37 ⁶	-15	-28
25.	Rel. Adh.	Y	J	H	D	E	P	US	CR	F	15	-29	-75 ⁴	15	-12
26.	Other Or'n.	J	Y	H	US	P	F	D	E		36	-09 ⁴	-53 ⁴	38 ⁴	20 ⁴
27.	Future Plan.	H	Y	P	F	D	J	US	E		47	54 ⁴	-02	63 ⁴	63 ⁴
28.	El. Sch.	H	Y	D	P	F	US	E	J		18	39	-08	38	34
29.	Sec. Sch.	H	Y	P	US	F	D	E	J		17	28 ⁴	14	33	37 ⁴
30.	Univ.	H	P	Y	D	F	US	E	J		37	56 ⁴	21	44 ⁴	56 ⁴
31.	Business	Y	P	E	F	H	J	US	CR	D	45	31 ⁷	25	54 ⁶	49 ⁵
32.	Labor	E	US	H	D	J	P	Y	CR	F	-45	-79 ⁷	-38	-77 ⁶	70 ⁵
33.	Loc. Gov.	Y	H	F	US	E	J	P	D		-02	-09	-12	24 ⁴	14 ⁴
34.	Nat. Gcv.	D	F	E	US	H	Y	J	P	CR	-84	-24	-03	-58 ⁴	-62 ⁴
35.	Health Serv.	Y	P	E	H	US	CR	J	F	D	35	-01	07	30	26
36.	Churches	E	H	D	Y	US	F	P	J		-40	-42	-21	-44	-42
37.	Fluoridation	J	F	Y	US	P	D	E	H		12 ⁵	05	-35	32	17
38.	Child Rear.	F	US	J	D	H	Y	E	P		-70 ⁵	-26 ⁴	-29	-38	-50
39.	Birth Control	E	Y	D	H	US	J	P	P		-30	-55 ⁴	-36	-29	-46
40.	Automation	F	US	Y	P	H	J	D	E		-04	35 ⁴	36	34	30
41.	Pol. Lead.	F	H	D	E	Y	US	J			-21	64 ⁴	39	65	32
42.	Self Change	Y	F	US	H	D	J	E	P		-42	-08	-33 ⁴	11	-20
43.	Local Aid	E	D	US	J						-46 ⁴	03	81	-65 ⁴	-31
44.	Fed. Aid	US	D	J	H	F	E	Y			-68 ⁴	-44	-32	-67 ⁴	-75
45.	Ed. Plan.	F	US	J	Y	H	E	D			-07	19	32	21	25

¹Based on adjusted means in Table A. 5.

²Underlined scores indicate ties.

³Consult questions in research instruments to ascertain meaning of "low" and "high." High is sometimes positive or in-favor-of; sometimes reversed.

⁴p < .05

⁵p < .01

⁶p < .005

⁷p < .001

⁸p < .0005

⁹Per capita income.

¹⁰Percentage literacy.

¹¹Percentage national income spent on education.

¹²Newsprint per inhabitant.

¹³Average development rank.

TABLE 29 Rank Order¹ and Rank Order Correlations Between 45 Socio-Psychological Variables and

Socio-Economic Indices for Eight Nations for L Respondents

No.	Variable	Rank ² Order Scores ³							Rho					
		Low				High			Inc ⁹	Lit ¹⁰	Ed ¹¹	New ¹²	Dev ¹³	
		0	1	2	3	4	5	6						7
1.	H. P. Cont.	CR	US	D	H	F	C	Y	J	-33	-09	33	-39	-19
2.	H. P. Int.	CR	D	H	US	J	F	C	Y	-28	-31 ⁵	-14	-50 ⁴	-33
3.	Ed. T. Cont.	US	J	H	C	D	CR	Y	F	-27	-73 ⁵	-37 ⁴	-66 ⁴	08 ⁵
4.	Ed. T. Int.	J	US	H	D	CR	F	C	Y	-52	-83 ⁶	-62 ⁴	-79 ⁵	-76 ⁵
5.	Ed. P. Cont.	J	F	US	C	H	CR	Y	D	-09	-16	-05 ⁵	-17 ⁴	-14 ⁴
6.	Ed. P. Int.	J	H	US	F	D	CR	Y	C	-57 ⁶	-76	-74 ⁵	-63 ⁴	-71 ⁴
7.	Support	C	J	CR	H	Y	D	F	US	85 ⁶	33	07	50 ⁵	62 ⁵
8.	Conform	US	F	H	D	J	CR	Y	C	-90 ⁷	-55	-28	-79 ⁵	-76 ⁵
9.	Recog.	D	H	F	J	C	CR	Y	US	-21	09	-40	-29	-17
10.	Indep.	C	Y	J	US	CR	F	D	H	57	23 ⁴	35	55	42
11.	Genev.	US	J	Y	CR	H	C	F	D	-00	-62 ⁴	-21	-05	-24
12.	Leader.	D	CR	Y	F	J	H	US	C	-09 ⁴	09	-17	14	-05
13.	Ed. Amt.	F	D	US	H	C	J	Y	US	-75 ⁴	03	28	-53	-39
14.	Ed. Enj.	F	D	CR	C	J	Y	US	H	01	55	32	17	18
15.	Ed. Alt.	CR	J	C	F	US	Y	D	H	55	29	44	42	45
16.	H. P. Amt.	J	C	CR	US	F	H	D	Y	37	-02	17	-01	15
17.	H. P. Avoid	CR	D	F	J	Y	C	US	H	06	22	10	17	06
18.	H. P. Enjoy	J	F	Y	H	C	D	US	CR	03	-03	-45	19	-01
19.	H. P. Alt.	J	CR	C	US	Y	F	H	US	46	-07	11	16	11
20.	MR Amount	C	F	H	J	D	US	Y	US	32 ⁵	53	36	21	46
21.	EDP Amt.	Y	C	H	J	D	US	F	US	82 ⁵	28	-10	61	61
22.	Age	C	US	Y	J	CR	H	D	F	40	-07	28 ⁶	21	21
23.	Rel. Imp.	J	D	Y	H	F	CR	US	C	-21 ⁶	-40	-84 ⁶	-12 ⁴	-40 ⁵
24.	Ed. Amt.	C	CR	Y	D	H	J	F	US	84 ⁶	57	41 ⁶	65 ⁴	77 ⁵
25.	Rel. Adh.	Y	J	H	D	F	US	CR	C	-19	-45	-83 ⁶	01	-33
26.	Other Or'n.	J	Y	F	US	H	D	C	US	03	-36	-43	21	-11
27.	Future Plan.	H	Y	C	D	F	US	J	US	39	43	07	36	53
28.	El. Sch.	C	US	Y	H	D	F	J	D	11	11	58	02	18
29.	Sec. Sch.	Y	US	H	F	C	J	D	D	03 ⁴	-11 ⁴	21	21 ⁴	18 ⁵
30.	Univ.	C	F	H	Y	J	US	D	US	64 ⁴	71 ⁴	53 ⁴	68 ⁴	85 ⁴
31.	Business	Y	C	CR	US	F	H	J	D	59 ⁴	48	67	73 ⁵	69 ⁴
32.	Labor	US	C	H	J	F	D	CR	Y	-26	-30	05	-56	-31
33.	Loc. Gov.	US	C	J	H	Y	D	F	CR	-12	-45	-14	-36	-31
34.	Nat. Gov.	D	C	F	H	US	J	Y	US	-27 ⁴	40	41	-28 ⁴	-05 ⁴
35.	Health Serv.	Y	C	CR	H	US	J	F	D	71	27	32 ⁵	67	66 ⁴
36.	Churches	D	Y	J	H	US	F	C	CR	-43 ⁵	-50	-78 ⁵	-29 ⁴	-57 ⁴
37.	Fluoridation	Y	J	C	F	D	US	US	US	83 ⁵	37	-20 ⁵	82 ⁴	71 ⁴
38.	Child Rear.	F	C	US	Y	H	D	J	US	03	57	93 ⁵	32	46
39.	Birth Control	Y	H	D	US	F	C	J	US	-14	-03 ⁵	-14 ⁵	-00	-00 ⁴
40.	Automation	F	C	Y	H	US	D	J	US	32	78 ⁵	78 ⁵	61	72 ⁴
41.	Pol. Lead.	F	US	D	Y	C	H	J	US	-61	18	61	-18	-18 ⁴
42.	Self Change	Y	C	H	US	F	J	D	US	60 ⁴	36 ⁴	39	61 ⁴	68 ⁴
43.	Local Aid	US	D	J	C	F	J	C	US	-94	-95 ⁴	-31	-95	-95 ⁴
44.	Fed. Aid	Y	US	D	H	F	J	C	US	-42	-35	-14	-21	-36
45.	Ed. Plan.	F	Y	US	H	C	J	D	US	-03	21	46	35	32

¹Based on adjusted means in Table A. 7.

²Underlined scores indicate ties.

³Consult questions in research instruments to ascertain meaning of "low" and "high." High is sometimes positive or in-favor-of; sometimes reversed.

⁴P < .05

⁵P < .01

⁶P < .005

⁷P < .001

⁸P < .0005

⁹Per capita income.

¹⁰Percentage literacy.

¹¹Percentage national income spent on education.

¹²Newsprint per inhabitant.

¹³Average development rank.

occur jointly with high national socio-economic-educational development.

Close inspection of the aid-to-education variable (no. 43, 44--Tables 26-29) presents an interesting analysis. The United States scores are in the lowest ranks for all groups on both local and federal aid-to-education. Either the American people are against increased support to education, have lost sight of the values and purposes of education, are ambivalent, hostile, and confused about taxation; or they do not see the relationship between national and personal goals and education.

Tables 26-29 contain a multitude of significant relationships: high national expenditure on education results in low adherence to religion; high literacy and expenditure on education was related to support of birth control; belief in the regular change of political leaders was related to literacy and expenditure on education; and high national development level was often negatively related to the belief in trying out new methods of child-rearing, i. e., perhaps as a backlash against permissive child-rearing practices.

Analysis of the differences between groups is also interesting, e. g., education versus the manager group. For teachers, positive attitudes toward the disabled (low ATDP scores) were related to high national per capita income at the .05 level, whereas, for managers the relationship was negligible. As pointed out in H-10, managers in highly productive societies may view the disabled as interfering with production. The correlation for teachers between per capita income and progressive attitudes toward education was .41, whereas, for managers it was .01.

The correlation for teachers between the belief that labor was doing a good job and per capita income was .38, whereas, for managers it was -.45. Apparently teachers and managers perceive labor quite differently and the difference is not related to national level of per capita income.

H-16: Attitudes will be more positive and cross-culturally invariable in areas relating to technology and less so in areas perceived as related to potential changes in social structure or moral-ethical-familial aspects.

To some extent this hypothesis was an afterthought and consequently it was not well instrumented in the questionnaires. The questions on fluoridation (variable 37) and automation (variable 40) measure attitudes toward technology; and questions on child-rearing (variable 38), birth control (variable 39), and "who should plan education" (variable 45) measure perceived changes in social structure. The data are contained in Tables A. 2, 4, 6, 8, in Appendix A and Table 30 in Chapter 4.

Table A. 2 contains the F ratios for the SER group on the 45 variables for the eleven nations. Inspection of the table lends support to H-16; there are fewer differences between nations on attitudes toward fluoridation and automation than there are on attitudes toward child-rearing practices, birth control, and toward who should plan education. For example, only 13 of the 38 or 40 percent of the differences tested on automation were significant, whereas, 23 of 38, or 61 percent of the differences tested on birth control were significant.

Tables A. 4, 6, and 8 contain the F ratios for E, M, and L groups respectively on the 45 variables for the eleven nations. The E group (Table A. 4) differs significantly across nations on most of the variables. They differ most on traditional attitudes toward education, support value scores, importance of religion, amount of education, and adherence to the rules and regulations of their religions. Teachers in the United States and Costa Rica, in Colombia and Costa Rica, and in Peru and Denmark differ most from each other, and teachers in Europe differ least from each other.

Similar analyses to the immediately preceding can be extracted from Tables A. 6 and 8 for the M and L groups respectively.

Table 30 contains the summary of hypotheses as well as directionality of those not supported at the pre-established .05 level of statistical confidence.

Guttman Multidimensional Analysis

H-17: Attitudes toward (a) education and toward (b) disabled persons will exhibit a multidimensional structure when analyzed by the Guttman Multiple Scalogram (MSA I) procedure.

Attitudes toward education and toward disabled persons were measured as in Hypothesis 1. The MSA I (Bloombaum, 1968; Lingoes, 1966b) computer programs at Michigan State University and at the Hebrew University in Jerusalem, Israel were used to process the data.

Figures 14-23 contain the results of MSA I analysis of the Kerlinger Scale I. The ATDP scale was not analyzed since facet theory analysis (Fig. 7) showed it to be primarily at the symbolic-belief level and of limited content.

The first MSA I analysis of the 20 item Kerlinger I scale indicated that six of the traditional¹ and one of the progressive items (3, 6, 10, 11, 13, 19, and 5) seemed to go together and six of the progressive items (7, 9, 15, 16, 17, 20) had the same profile and seemed to go together. These were then rerun as two separate MSA I analyses. The second MSA I run of the six traditional items indicated that four of them (10, 11, 13, 19) seemed to go together.

¹See Fig. 5 for classification of items as traditional or progressive.

Figures 14-21 interpret and illustrate the use of the MSA I Computer print-out. Figures 14-16 contain the various ways the MSA I print-out categorizes the data for plotting in the Space Diagram¹ illustrated in Fig. 17; the latter contains the "smallest space representation" of the seven Kerlinger items (i. e. 3, 6, 10, 11, 13, 19, and 5). Figures 18-21 show the partitioning of the Space Diagram (Fig. 17) for the four traditional items (10, 11, 13, 19) that seemed to go together. Figure 22 presents a rationale for interpreting the results of these four items.

These four traditional items represent the teacher using "fixed" methods for helping students acquire mastery of subject matter and are thus of the a_2, b_1 profile type as presented in Figs. 4 and 5. The items have in common the dimension (see Fig. 22) of dealing with the process of education; with items 10 and 13 not specifying process, item 19 mentioning process but leaving it open, and item 11 being more specific about process.

Figure 23 presents a listing of the profiles in a two dimensional space, the y-axis representing Guttman's Conjoint dimension and the x-axis representing the Disjoint dimension. We can say that a subject's sum-score on these items on the x-axis represents his amount and direction of difference within that level; i. e. all profiles on any one row-level sum to the same amount, but are achieved by adding different response category numbers within each separate profile. For example, row-level number 8 of Fig. 23 contains the following two profiles at its left and right extremes respectively: 4421 and 1334. The Disjoint scores for the profiles are 1 and 9 respectively. A low Disjoint score means that process is not mentioned, and a high score means that it is mentioned.

We can now give the subject two content scores, a Conjoint Score by summing² his response categories to the items and a Disjoint Score which is somewhat analogous to giving him his own personal "mean score" and a "deviation score" around his own mean. Two theorems emerge from this discussion: (a) Two non-identical profiles with the same sum score are not comparable--thus Disjunctive, and (b) Two non-identical profiles with different sum scores are capable of being comparable--and thus may be Conjunctive. This is psychologically equivalent to saying that both profiles

¹The Space Diagram is the multivariate presentation of all the profiles (i. e. in this example, persons or groups of persons) as points in the smallest space possible for maintaining contiguity of the categories.

²This is not literally so (although it is approximately equal) and Guttman is working on principles via which the computer program will arrive at the scores based on stated principles.

possess a stated amount of that which is most common to the items (the Conjoint score) and that they are more or less homogeneous on its substance (have similar Disjoint scores).

GUTTMAN FACET THEORY AND MULTIDIMENSIONAL ANALYSIS OF THE ATTITUDE SCALES

This section represents our attempt to exploit the use of a relatively new methodology of attitude scale construction and analysis, which is based on facet theory and multidimensional analysis as developed by Guttman (1954h, 1957k; Guttman and Schlesinger, 1966). Facet theory, in conjunction with the newer multidimensional (non-metric) Guttman-Lingoes computer programs (Bloombaum, 1968; Lingoes, 1966b), allows one to examine the profiles of individual subjects or groups of subjects who have the same profile.

Most of the previous methods of analysis accounted for the individual subject only indirectly via the correlation matrix. The newer multidimensional scalogram programs by Guttman and Lingoes represents the subjects as points, variables as partitions, and categories of the variables as regions of partitions (Guttman and Schlesinger, 1967, p. 46).

Our original intent was to subject all of our data to this type of analysis. Due to difficulties in getting the programs operational on the MSU computer only the Kerlinger scale was so analyzed. Future uses of the MSA I program are discussed below and in Chapter 4.

The space diagram generated by the MSA I analysis must be interpreted, and for this an a priori facet theory of content is useful and/or necessary. However, even when there is no a priori theory of content the MSA I can be used empirically to ascertain structure and perhaps to suggest hypotheses for theory construction and/or testing. Facet theory can be used a priori or a posteriori. Figures 8 and 9 represent the former and Figs. 4, 6, and 10 the latter. Figures 1-3 depict the facets and elements used in arriving at our six "levels" of attitude. Two continua run through the structure: verbal-to-behavior and other-to-self. Level 1 represents the verbal-other pole and Level 6 the behavior-self pole.

Figure 4 contains the mapping sentence of an a posteriori facet theory content analysis of the Kerlinger Attitude Scale I and Fig. 5 the item-by-item content analysis. Figure 4 imposes a theory of content (i. e. semantic space) on the Kerlinger scale. It contains two facets, method and content, and depicts the teacher in the use of each. Kerlinger has already categorized the items as progressive or traditional. Examination of Figs. 4 and 5 indicates that the progressive items depict the

teacher using differential or varied methods and being involved in more than just subject matter. Figure 5 does not present a structural profile for the Kerlinger items. At this point the author is unsure whether identical Conjoint Structuration facets pertain to both personal and conceptual attitude objects; i. e. disabled persons can be looked at as personal attitude objects and education as a conceptual attitude object.

Figures 6 and 7 contain the structure and content analysis of the Yuker, et al. (1960) scale of Attitudes Toward Disabled Persons (ATDP). The structure analysis (Fig. 7) indicates that the items are primarily of the symbolic-belief nature. None of the items specifically depict the subject (i. e. the person taking the scale) in any kind of interactive behavior with the attitude object--the disabled person. This likely accounts for many of the contradictory results (Yuker, et al., 1966) from the research using the ATDP scale.

If the respondent (i. e. taking the ATDP scale) has had an extensive amount of professional experience with cerebral palsied individuals he certainly will not state that: "Physically handicapped persons are just as intelligent as non-handicapped ones." If he were asked, however, to state what others thought (Fig. 2, Level 1) he might indicate so and still indicate his own attitude based on actual personal experience (Fig. 2, Level 6) as being quite contradictory. Extended analysis of this nature indicates that the ATDP is at best a scale of verbal-symbolic-beliefs about the disabled.

Figures 8 and 9 represent the a priori use of facet theory in the development of an Attitudes Toward Specified Persons Scale. Figures 8 and 9 also illustrate an attempt to combine structure and content into one single faceted definitional system. A family of scales is being developed using the model. A pilot version of the first¹ scale, Attitude Behavior Scale--Mental Retardation (ABS-MR), has been constructed and data has already been collected on approximately 1,500 persons. The second scale will be: Attitudes of Negroes and Whites Toward Each Other (ABS-NW). The pilot study² using

¹Supported in part by Office of Education Contract No. OEG-0-8-000126-0197, and projected for completion in April, 1969. A complete analysis of the ABS-MR scale and its development will be contained in the final report to the Office of Education. Data will be gathered in the following nations using the ABS-MR scale: U. S., British Honduras, Brazil, Colombia, Germany, Iran, Israel, Yugoslavia, and possibly India and Poland.

²The ABS-NW pilot study is supported in part by the Urban Adult Education Institute of Detroit and the Martin Luther King, Jr. Foundation of Washington, D. C.

the ABS-NW scale is already underway and is scheduled for completion by January, 1969.

Considerable work has already been expended on developing a faceted Attitudes Toward Education Scale (see Fig. 11). As soon as the structure issue (i. e. structure of attitudes toward persons versus concepts) is resolved, work will proceed. It is anticipated that at least the facetization and item construction will be completed in 1969.

The project using the ABS-MR scale will also make extensive use of the MSA I type of statistical analysis. The scales (the ATDP and Kerlinger's) of the present research project are difficult to analyze systematically because it is impossible to ascertain how the content composition of the scale items were determined, and because the structure of the items is limited in scope as noted when comparing Fig. 7 to Fig. 2. Figures 12 and 13 contain the initial results from the ABS-MR scale. Figure 12 is based on the results of 88 graduate students in a course on medical information for rehabilitation counselors and special education teachers; students who were studying to be professionals in the area of disabling or handicapping conditions (SER). Figure 13 is based on 633 regular education students at the sophomore level, and this represents all students at that level in the 1968 winter quarter at Michigan State University; thus, it can be assumed they are representative of M. S. U. education at that level.

The results from the SER graduate students (Fig. 12) form an approximate simplex as predicted from Figs. 1 and 2. Contiguity theory also states that the correlations between levels should decrease (see Fig. 3) in relation to the number of steps that two levels are removed from each other. Examination of Fig. 12 indicates this to be as predicted: the correlation between Levels 1 and 2 was .56; between 1 and 3 was .17; between 1 and 4 was .10; between 1 and 5 was .04; and between Levels 1 and 6 was .00. It is also interesting to note that the correlation between Levels 3 and 4 was .48 whereas it was only .34 between 2 and 3. Apparently the SER students see themselves as doing what is right (Level 3, Fig. 12) more than they see other people doing what is right.

As with the SER graduate students, the results from the regular education students (Fig. 13) form an approximate simplex as predicted from Figs. 1 and 2. The contiguity relationship between scale levels was also essentially maintained: the correlation between Levels 1 and 2 was .44; between 1 and 3 was .05; between 1 and 4 was .15; between 1 and 5 was .17; and between 1 and 6 was .01. The correlation between Levels 3 and 4 was .55 whereas it was only .21 between Levels 2 and 3.

The results contained in Figs. 12 and 13 lend support to an hypothesis of invariate structure between the scale levels contained in Figs. 1 and 2. The data also suggest that age and experience bring congruence between what one expects of others and one's self; i. e. the difference between Levels 3 and 4 as opposed to Levels 2 and 3 was much greater for the regular education students than for the SER ones. The latter are older and have had more experience than the regular education students. Both SER and regular education students, however, saw themselves as doing "what was right" more than they saw others doing it. It should also be noted that Level 3 was involved in all of the instances but one in which the simplex ordering was not maintained; i. e. the Moral Evaluation level. Apparently the relationship of Level 3 is more subtle and difficult to differentiate. Further research will attempt to explicate the relationship.

Since the completion of this chapter the simplex has also been obtained cross-culturally. The mental retardation scale (ABS-MR) was given to 523 teachers in British Honduras or Belize, Central America. The data form an approximate simplex as predicted from Figs. 1 and 2. The Correlation between Levels 1 and 2 was 22; between 1 and 3 was 11; between 1 and 4 was 21; between 1 and 5 was 17; and between 1 and 6 was 13. The Correlation between Levels 3 and 4 was 39, whereas, it was only 31 between Levels 2 and 3.

The Belize data will be fully reported in the final report of the ABS-MR study (see footnote 1, page 73).

FIGURE 1 Basic Facets¹Used to Determine Conjoint Struction²of an Attitude Universe

	(A) <u>Referent</u>	(B) <u>Referent Behavior</u>	(C) <u>Actor</u>	(D) <u>Actor's Intergroup Behavior</u>	(E) <u>Domain of Actor's Behavior</u>
<u>ELEMENTS</u>	a ₁ others	b ₁ belief	c ₁ others	d ₁ comparison	e ₁ symbolic
	a ₂ self	b ₂ overt action	c ₂ self	d ₂ interaction	e ₂ operational

¹As B qualifies A's behavior, so E qualifies C's behavior. Frequently, but not necessarily, A and C are identical. In such cases, B and E must be "consistent," i. e. some combinations seem illogical; B₁E₂. It should be noted that sometimes the subject filling out the questionnaire is identical with either referent or actor or both, but not necessarily so: i. e. in Level 1 and 2 referent and actor are identical, the subject is asked to report about them: in Level 3 the subject is identical with the referent, but not with the actor; in Level 4, 5, 6, subject, referent, and actor are identical. (See Fig. 2).

²Conjoint Struction: Operationally defined as the ordered sets of these five facets from low to high across all five facets simultaneously. The more subscript "2" elements a set contains, the greater the "strength" of the attitude. It should also be noted that not all combinations are logical. The selection of a "best" group of sets is still partly a matter of judgment. Two continua run through the facets: other-self and verbal-action.

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FIGURE 2 Conjoint¹ Level, Profile Composition² and Labels for Six Types² of Attitude Struction

<u>Type-Level</u>	<u>Struction Profile²</u>	<u>Descriptive Conjoint Term</u>
1	d ₁ a ₁ c ₁ b ₁ e ₁	Societal Stereotype
2	d ₂ a ₁ c ₁ b ₁ e ₁	Societal Interactive Norm
3	d ₂ a ₂ c ₁ b ₁ e ₁	Personal Moral Evaluation
4	d ₂ a ₂ c ₂ b ₁ e ₁	Personal Hypothetical Behavior
5	d ₂ a ₂ c ₂ b ₂ e ₁	Personal Feelings
6	d ₂ a ₂ c ₂ b ₂ e ₂	Actual Personal Behavior

¹Conjoint order: Level 1 < level 6 and a₁ < a₂; b₁ < b₂; c₁ < c₂; d₁ < d₂; e₁ < e₂.

²Based on facet order of March 7, 1968 (see Fig. 1).

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FIGURE 3 Hypothetical¹ Correlation Matrix Illustrating Expected Simplex Ordering of Items

Constructed on Basis of Figure 2

1	--					
2	.60	--				
3	.50	.60	--			
4	.40	.50	.60	--		
5	.30	.40	.50	.60	--	
6	.20	.30	.40	.50	.60	--
	1	2	3	4	5	6

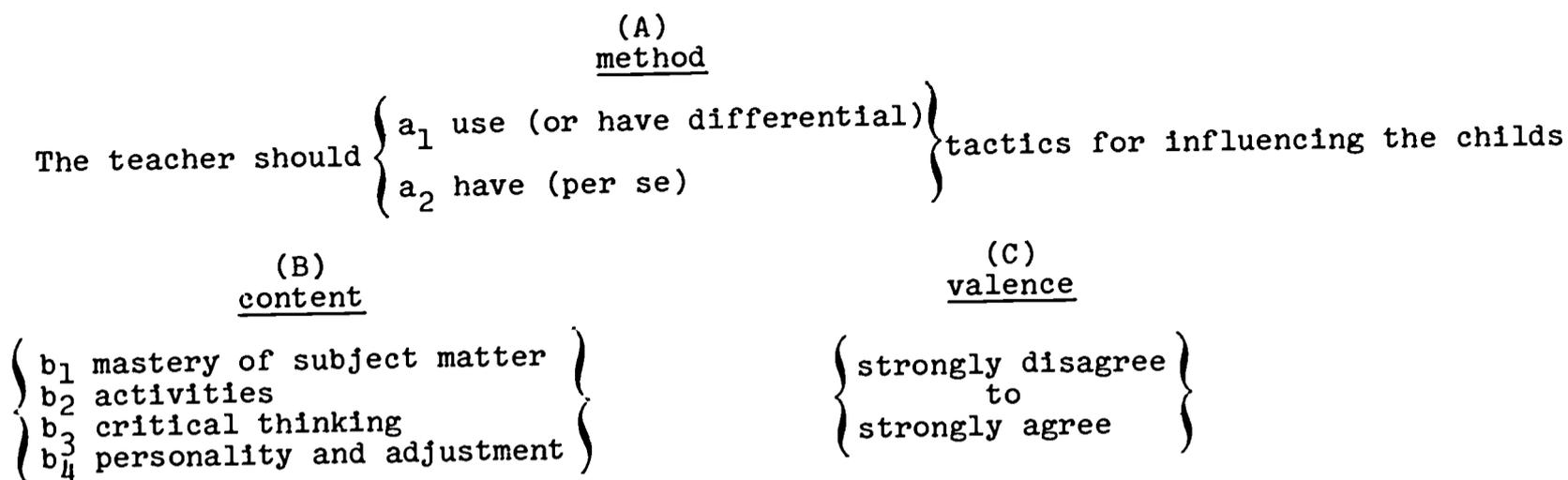
LEVELS

¹Assuming that a maximum r between two components is in the nature of .60; with four elements in common.

²As structured on March 7, 1968.

FIGURE 4 A Mapping Sentence for the Facet Analysis of the Item Content of the Attitudes Toward

Education¹Scale I



¹Kerlinger, F., 1967.

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FIGURE 5 Content Profile Composition of the Items of the Attitude Toward Education¹Scale I

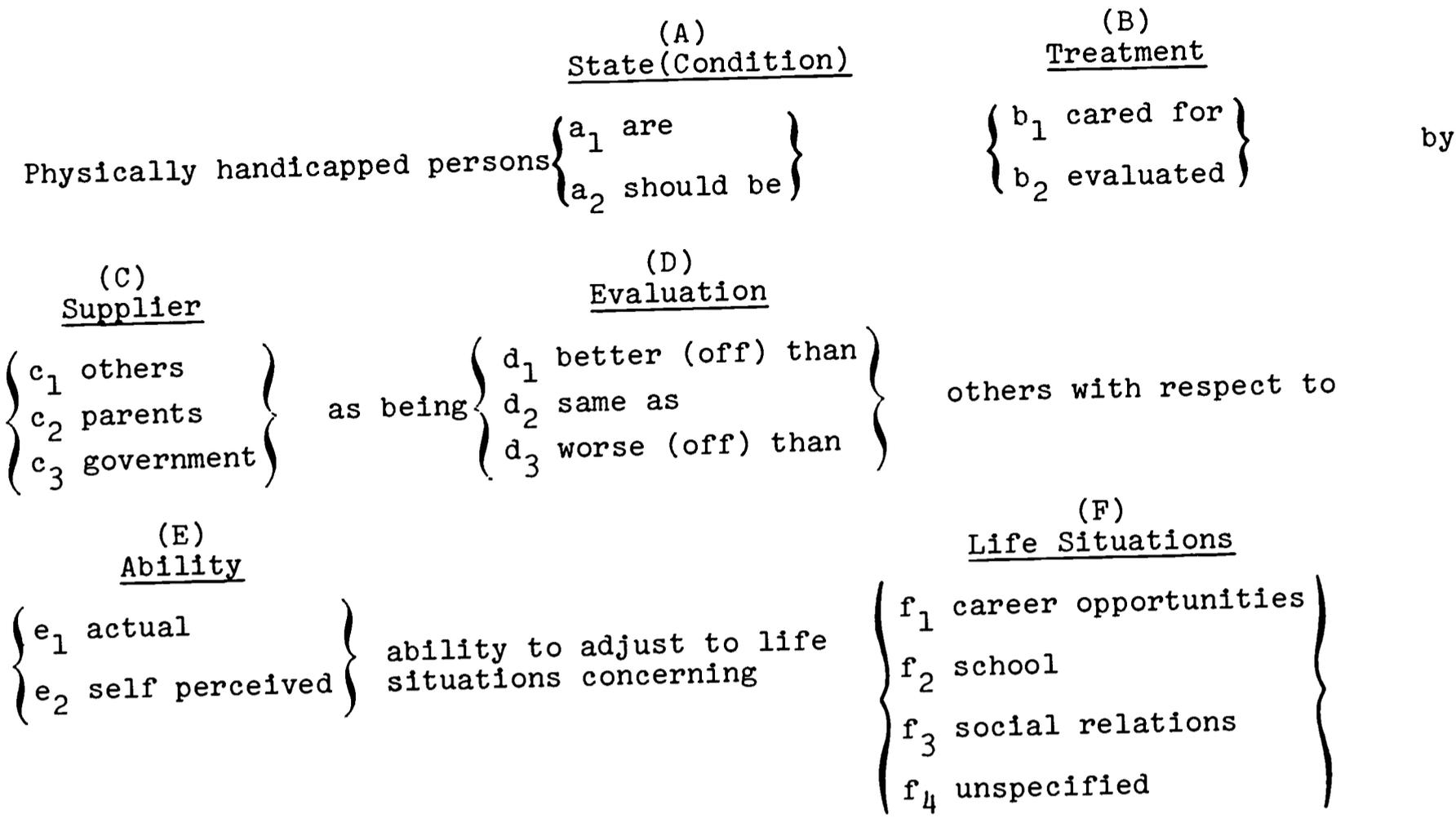
Item No.	Facet Content Composition ²		Item Type ³
	A	B	
1	1	4	P
2	1	4	P
3	2	1	T
4	2	--	T
5	2	3	P
6	2	1	T
7	1	3	P
8	2	4	P
9	1	3	P
10	2	1	T
11	2	1	T
12	2	4	T
13	2	1	T
14	2	--	T
15	1	3	P
16	1	1	P
17	1	3	P
18	2	--	T
19	2	1	T
20	1	3	P

¹Kerlinger, F., 1967.

²Re August 10, 1966 Content Facetization (see Fig. 4).

³p=Progressive Item T=Traditional Item

Disabled Persons¹ Scale



¹Yuker, et al., 1960.

ATTITUDES TOWARD HANDICAPPED PERSONS

- ¹United States Handicapped Persons Scale
- ²Costa Rica Escala Sobre Personas Fisicamente Incapacitadas
- ³Colombia Escala Sobre Personas Impedidas
- ⁴Peru Escala de Personas Fisicamente Disminuidas
- ⁵England Handicapped Persons Scale
- ⁶Holland Gehandicapten Schaal
- ⁷France Handicapés Physiques
- ⁸Yugoslavia Tjelesni Invalidi
- ⁹Denmark Fysisk Handicappede
- ¹⁰Japan お類は ことに身体障害者について2名の意見が示されています。私達は身
- ¹¹Belgium Handicapés Physiques
- ¹²Israel (a) אדם מוגבל פיזית

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Applied Social Research
August 10, 1966



FIGURE 7 Content and Structure Profile Composition of the Items of the Attitudes Toward Disabled

Persons Scale

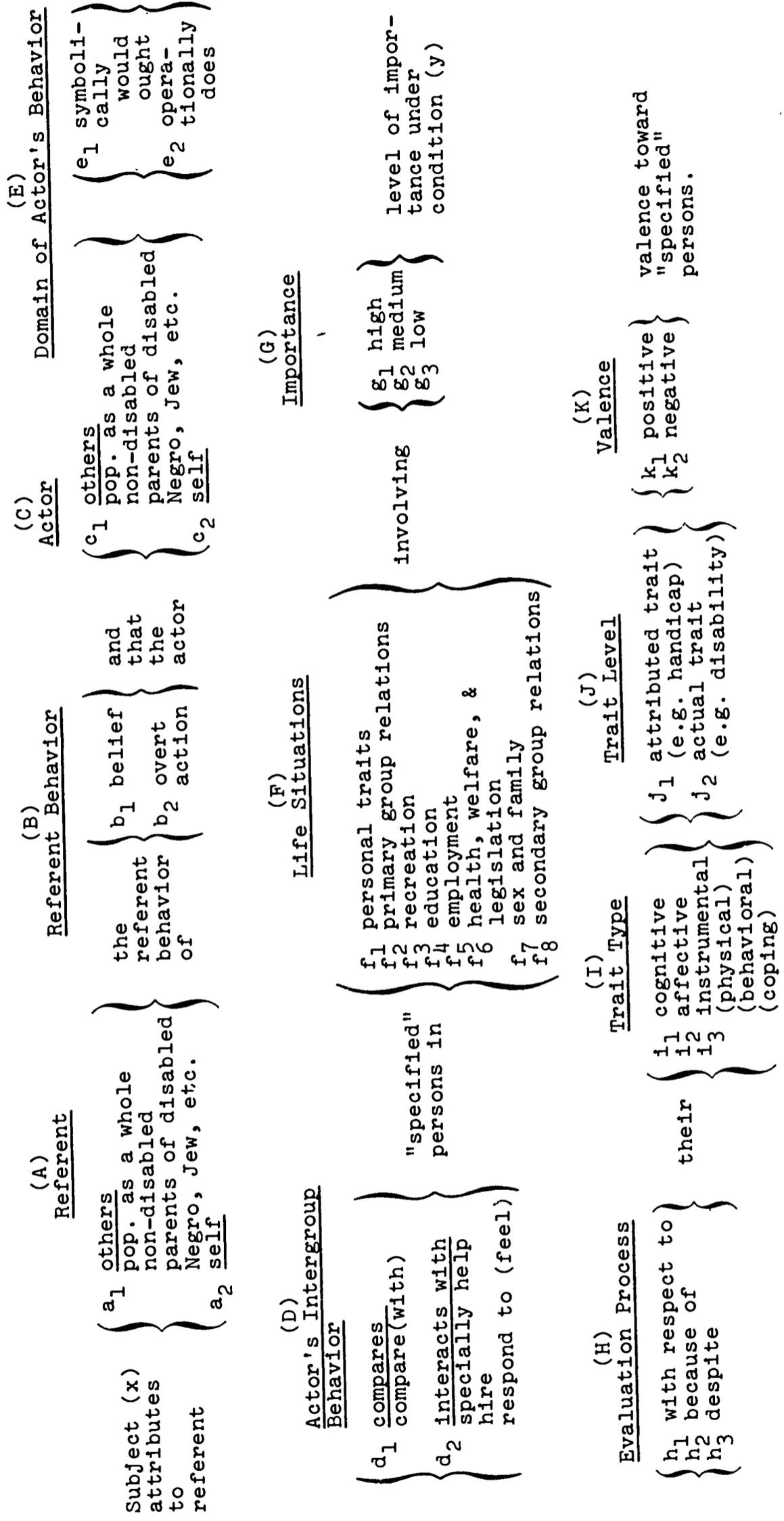
Item No.	Content Composition						Structure Composition ²				
	A	B	C	D	E	F	A	B	C	D	E
1	2	1	2	3	1	4	1	1	2	1	1
2	1	2	-	2	1	4	2	1	2	1	1
3	1	2	1	1	1	3	2	1	2	1	1
4	1	2	-	3	2	4	1	1	2	1	1
5	1	2	-	2	1	4	2	1	2	1	1
6	2	1	1	2	1	2	2	1	2	1	1
7	2	1	1	3	1	1	2	1	2	1	1
8	2	1	3	3	1	4	1	1	2	1	1
9	1	2	1	3	1	4	2	1	2	1	1
10	2	2	-	3	1	4	2	1	2	1	1
11	1	2	-	2	1	4	2	1	2	1	1
12	1	2	1	2	1	3	2	1	2	1	1
13	1	2	-	3	1	4	2	1	2	1	1
14	2	2	-	3	1	4	2	1	2	1	1
15	1	2	-	3	1	3	2	1	2	1	1
16	1	2	-	3	1	3	2	1	2	1	1
17	1	2	-	3	1	3	2	1	2	1	1
18	1	2	-	3	2	4	2	1	2	1	1
19	2	2	-	3	1	3	2	1	2	2	1
20	1	2	-	3	1	3	2	1	2	1	1

¹Re August 10, 1966 content facetization (see Fig. 6).

²Re March 7, 1968 facetization structure paradigm (see Figs. 1 and 2).

FIGURE 8 A Mapping Sentence for the Facet Analysis of Conjoint and Disjoint Structure of Attitudes Toward Specified Persons

Attitudes Toward Specified Persons



¹Based on mapping sentence of March 7, 1968.

²Facets "A" through "E" denote Conjoint Structure or level.

³Facets "F" through "J" denote attitude content or Disjoint Structure. The ordering system has not yet been developed for Disjoint Structure as for Conjoint Structure (see Figs. 1 and 2).

⁴Any person or social group such as aged, blind, alcoholic, Negro, national or ethnic group may be substituted for the disabled.

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August 10, 1966

FIGURE 9 A Definitional¹System for the Facet Analysis of Conjoint²and Disjoint³Struction of An

Attitude Universe

Level	Descriptive Term	Respondent Believes/Reports
1	Societal Stereotype $d_1 a_1 c_1 b_1 e_1$	(S) believes <u>the pop. as a whole</u> , <u>believes</u> , that <u>the pop.</u> as a whole, <u>symbolically</u> (would), <u>compares</u> , the disabled in <u>life situation</u> involving <u>level of importance</u> under specified conditions via <u>evaluation process</u> on <u>trait</u> <u>type</u> and <u>trait level</u> .
2	Societal Interactive Norm $d_2 a_1 c_1 b_1 e_1$	(S) believes the <u>pop. as a whole</u> , <u>believes</u> , that <u>the pop.</u> as a whole, <u>symbolically</u> (would), <u>interacts</u> , with the disabled in (etc.).
3	Personal Moral Evaluation $d_2 a_2 c_1 b_1 e_1$	(S) believes <u>he himself</u> , <u>believes</u> , that <u>the population</u> as a whole, <u>symbolically</u> (ought), <u>interacts</u> , with the disabled in (etc.).
4	Personal Hypothetical Behavior $d_2 a_2 c_2 b_1 e_1$	(S) believes <u>he himself</u> , <u>believes</u> , that <u>he himself</u> , <u>symbolically</u> (would), <u>interacts</u> , with the disabled in (etc.)
5	Personal Feeling $d_2 a_2 c_2 b_2 e_1$	(S) reports <u>he himself</u> , <u>has actual feelings</u> , such as that <u>he himself</u> , <u>symbolically</u> , <u>interacts</u> , with the disabled in (etc.).
6	Actual Personal Behavior $d_2 a_2 c_2 b_2 e_2$	(S) reports <u>he himself</u> , <u>has actual experiences</u> , such that <u>he himself</u> , <u>operationally</u> (does), <u>interacts</u> , with the disables in (etc.)

¹Based on mapping sentence of March 7, 1968 (see Fig. 8).

²Facets "A" through "E" denote Conjoint Struction or level.

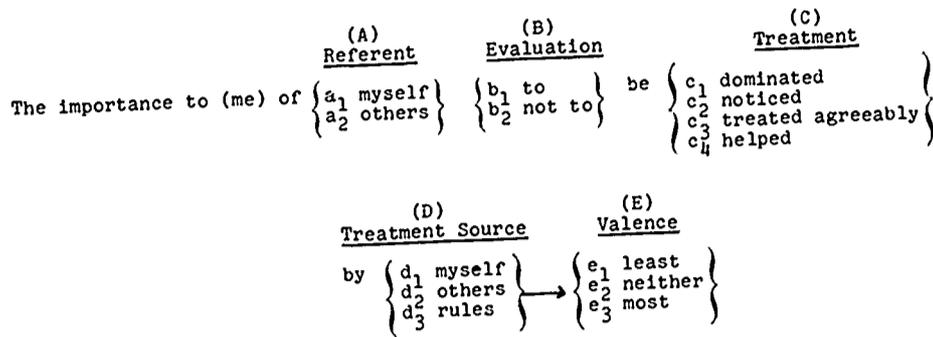
³Facets "F" through "J" denote attitude item content or Disjoint Struction. The ordering system has not yet been developed for Disjoint Struction as for Conjoint Struction (see Figs. 1 and 2).

⁴Any person or social group such as aged, blind, alcoholic, Negro, national or ethnic group may be substituted for the disabled.

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March 7, 1968

FIGURE 10 A Mapping Sentence for the Facet Analysis of the Item Content of the Scale of

Interpersonal Values¹



¹Gordon, L., 1960.

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FIGURE 11 A Mapping Sentence for the Facet Analysis of a Research Project on Cross-Cultural

Attitudes Toward Education

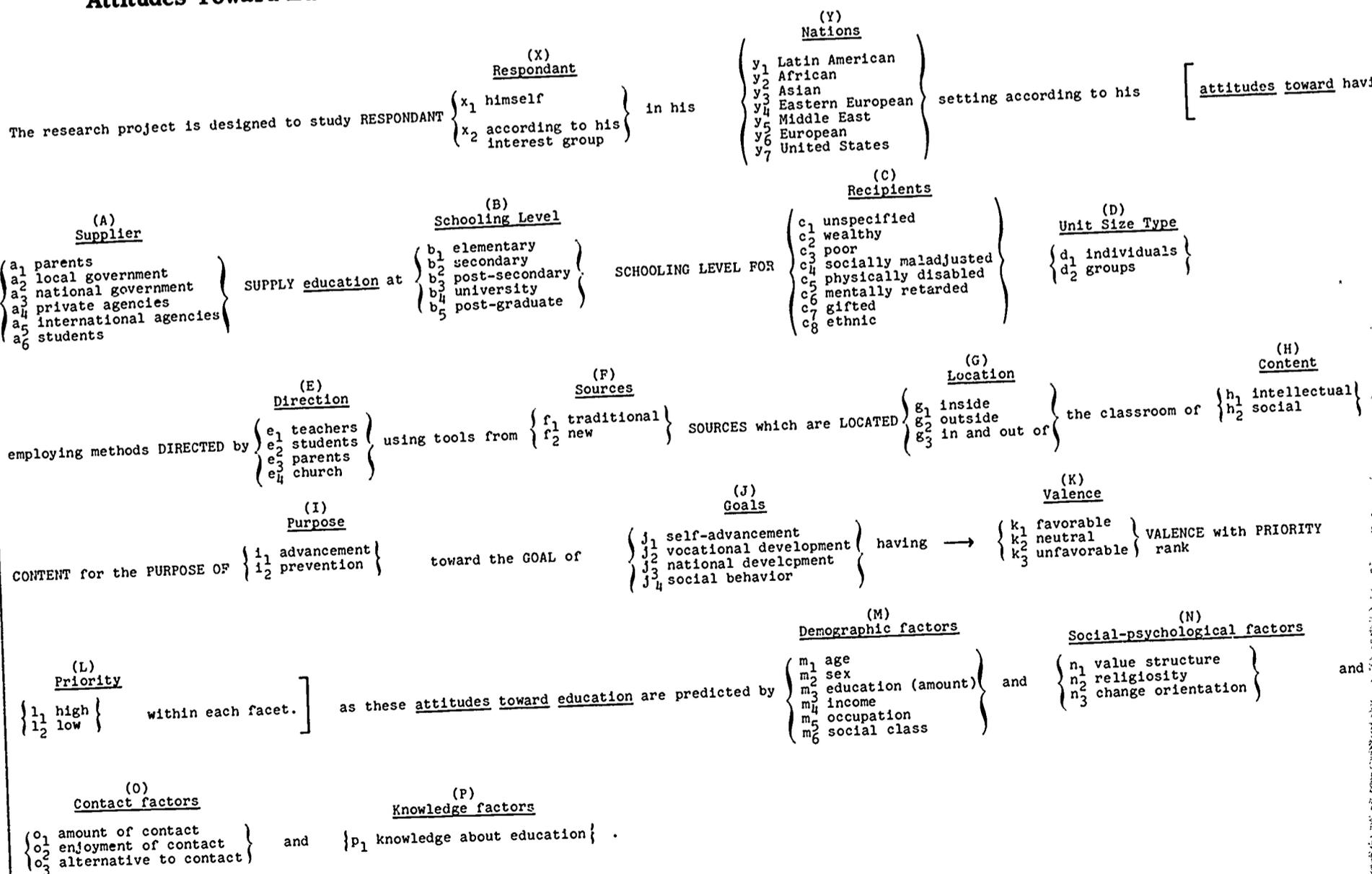


FIGURE 12 Correlation Matrix for 88 Graduate SER Students Illustrating Expected Simplex Ordering¹ of Items Constructed on Basis of Figures² 8 and 9

Descriptive Term	Level	1	2	3	4	5	6
Societal Stereotype	1	-					
Societal Interactive Norm	2	.56	-				
Personal Moral Evaluation	3	.17	.34	-			
Personal Hypothetical Behavior	4	.10	<u>.12</u>	.48	-		
Personal Feelings	5	.04	.13	<u>.08</u>	.24	-	
Actual Personal Behavior	6	.00	.05	<u>.04</u>	.13	.21	-

FIGURE 13 Correlation Matrix for 633 Education Students Illustrating Expected Simplex Ordering¹ of Items Constructed on Basis of Figure² 8 and 9

Descriptive Term	Level	1	2	3	4	5	6
Societal Stereotype	1	-					
Societal Interactive Norm	2	.44	-				
Personal Moral Evaluation	3	<u>.05</u>	<u>.21</u>	-			
Personal Hypothetical Behavior	4	<u>.15</u>	.21	.55	-		
Personal Feelings	5	.17	<u>.12</u>	.19	.38	-	
Actual Personal Behavior	6	.01	.04	.05	.19	.22	-

¹Underlined correlations indicate instances in which the simplex ordering was not maintained.

²As structured on March 7, 1968.

FIGURE 14 Example of MSA I Profile Data¹ on U. S. Sample for Items 3, 6, 10, 11, 13, 19, and 5 of

the Kerlinger Education Scale I

Original Subject--N = 391																	
Number of Subjects in Each Category																	
Var. Item	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOT
1- 3	0	81	227	57	26	0	0	0	0	0	0	0	0	0	0	0	391
2- 6	0	10	91	247	43	0	0	0	0	0	0	0	0	0	0	0	391
3-10	0	7	36	292	56	0	0	0	0	0	0	0	0	0	0	0	391
4-11	0	11	75	225	80	0	0	0	0	0	0	0	0	0	0	0	391
5-13	0	12	101	236	42	0	0	0	0	0	0	0	0	0	0	0	391
6-19	0	9	107	236	39	0	0	0	0	0	0	0	0	0	0	0	391
7- 5	0	34	155	164	38	0	0	0	0	0	0	0	0	0	0	0	391

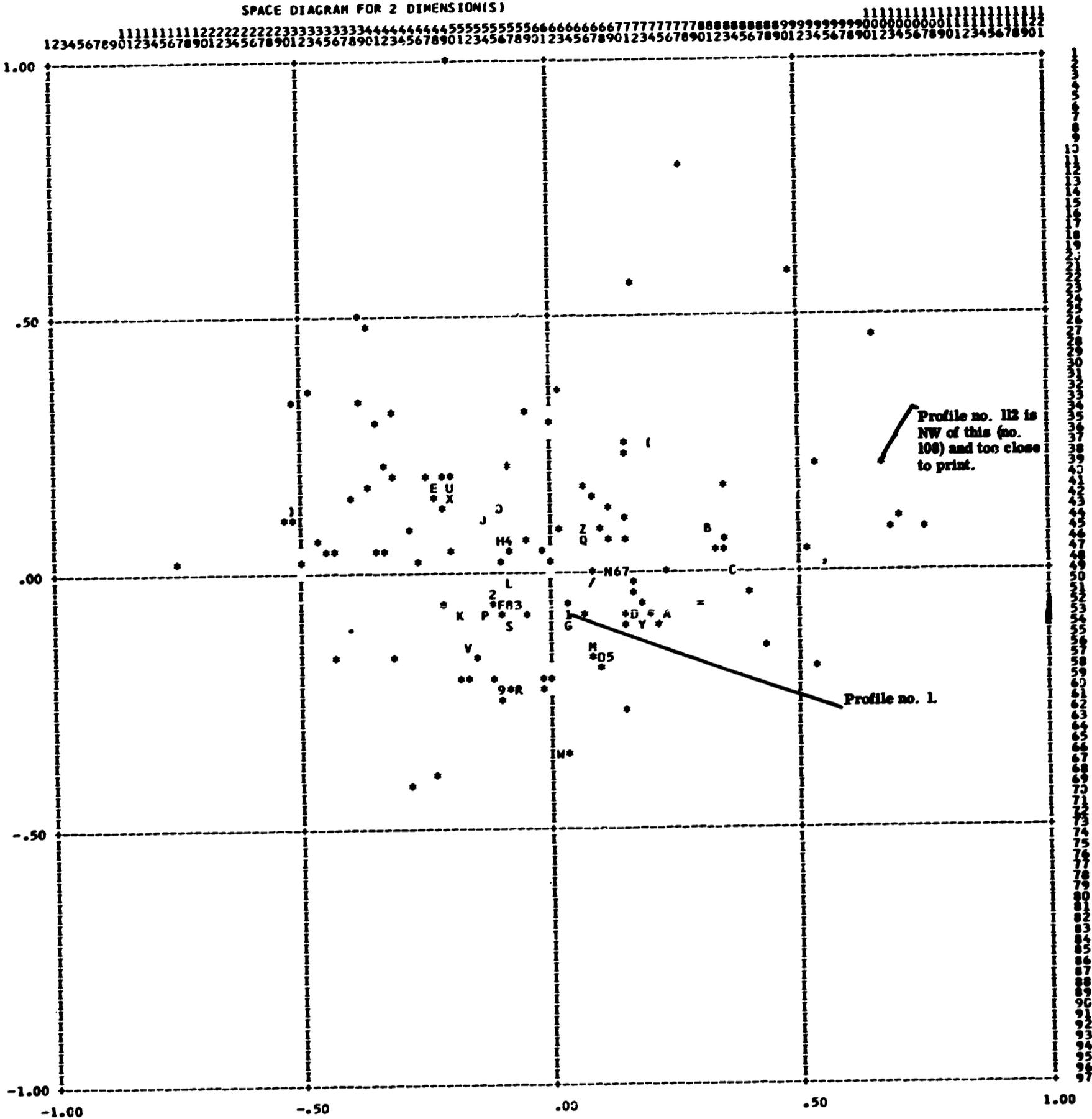
Number of Profiles in Each Category																	
Var. Item	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOT
1- 3	0	66	121	34	20	0	0	0	0	0	0	0	0	0	0	0	241
2- 6	0	10	69	123	39	0	0	0	0	0	0	0	0	0	0	0	241
3-10	0	7	34	152	48	0	0	0	0	0	0	0	0	0	0	0	241
4-11	0	11	58	108	64	0	0	0	0	0	0	0	0	0	0	0	241
5-13	0	11	69	123	38	0	0	0	0	0	0	0	0	0	0	0	241
6-19	0	9	78	120	34	0	0	0	0	0	0	0	0	0	0	0	241
7- 5	0	30	81	95	35	0	0	0	0	0	0	0	0	0	0	0	241

Number of Profiles for MSA I in Each Category																	
Var. Item	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOT
1- 3	0	30	81	26	13	0	0	0	0	0	0	0	0	0	0	0	150
2- 6	0	7	36	82	25	0	0	0	0	0	0	0	0	0	0	0	150
3-10	0	2	12	107	29	0	0	0	0	0	0	0	0	0	0	0	150
4-11	0	1	35	75	39	0	0	0	0	0	0	0	0	0	0	0	150
5-13	0	8	47	76	19	0	0	0	0	0	0	0	0	0	0	0	150
6-19	0	3	38	86	23	0	0	0	0	0	0	0	0	0	0	0	150
7- 5	0	23	62	51	14	0	0	0	0	0	0	0	0	0	0	0	150

¹The data indicate that the 391 subjects formed 241 profiles. MSA I automatically chooses 150 of these to plot in the space diagram according to two principles: (a) number of subjects in each profile (b) additionally in descending order until 150 are chosen. The program can be "told" to choose the 150 profiles via other options if so desired.

FIGURE 15 MSA I Profile Data for the Seven Items of Figure 14 Which are Plotted in the Space Diagram of Figure 17

Profiles								Profiles								
Frequency	Profile Number	Profile Composition						Frequency	Profile Number	Profile Composition						
25	1	2	3	3	3	3	3	1	76	2	3	3	4	2	4	1
17	2	2	3	3	3	3	3	1	77	2	4	3	3	4	3	1
11	3	3	3	3	3	3	3	1	78	1	3	3	4	3	4	2
6	4	1	3	3	3	3	3	1	79	2	3	3	2	1	3	1
5	5	2	3	3	3	2	3	1	80	3	4	3	4	3	1	3
5	6	2	3	3	3	3	2	1	81	2	1	4	4	4	4	2
5	7	2	3	3	3	3	2	1	82	2	3	4	3	3	4	2
5	8	3	3	3	3	3	3	1	83	2	3	3	3	2	4	1
4	9	4	3	3	3	2	3	1	84	4	3	4	4	4	3	2
4	10	1	3	3	3	3	3	1	85	4	2	3	3	3	3	2
4	11	2	2	3	3	3	2	1	86	2	3	2	3	2	3	2
4	12	2	3	3	2	3	2	1	87	1	2	3	3	2	2	2
4	13	2	3	3	2	2	2	1	88	2	3	4	3	3	3	2
3	14	2	2	3	4	2	3	1	89	1	3	3	3	3	4	2
3	15	2	3	4	4	3	3	1	90	2	4	3	3	3	3	2
3	16	3	3	3	3	3	3	1	91	3	3	3	2	4	3	2
3	17	2	2	3	3	3	3	1	92	1	3	4	3	3	3	3
3	18	2	3	3	4	3	3	1	93	2	2	3	4	4	3	3
3	19	2	2	3	3	3	3	1	94	1	2	3	4	2	3	2
3	20	2	3	3	4	3	3	1	95	2	1	3	4	3	3	1
3	21	3	3	3	3	4	3	1	96	2	2	3	4	1	3	3
3	22	1	2	3	3	3	3	1	97	2	3	3	3	3	3	1
3	23	2	2	3	3	2	3	1	98	3	2	3	2	2	3	2
3	24	2	4	3	3	3	2	1	99	2	4	4	1	4	3	3
3	25	2	3	3	3	2	3	1	100	2	2	2	2	1	2	4
3	26	2	3	3	3	4	3	1	101	2	2	3	3	2	2	3
3	27	2	3	3	4	2	3	1	102	4	4	4	2	1	3	3
3	28	2	3	3	3	3	3	1	103	3	4	3	3	2	3	4
3	29	1	3	3	3	2	3	1	104	2	4	3	2	2	3	3
3	30	2	2	3	3	2	3	1	105	1	3	3	3	2	4	3
3	31	2	3	3	4	3	4	1	106	1	2	4	4	3	4	2
2	32	4	3	3	3	3	2	1	107	2	3	3	3	1	2	2
2	33	4	3	3	3	1	2	1	108	2	1	2	3	2	2	3
2	34	2	3	3	4	3	4	1	109	3	2	4	4	2	4	2
2	35	2	2	3	3	2	2	1	110	1	4	3	3	3	4	1
2	36	2	3	3	2	3	3	1	111	3	3	4	3	2	3	2
2	37	3	3	3	3	4	2	1	112	2	3	2	2	2	1	2
2	38	2	3	2	3	2	2	1	113	1	4	3	3	2	3	2
2	39	3	2	3	3	3	3	1	114	1	3	3	2	3	2	1
2	40	2	3	4	3	2	3	1	115	2	2	3	4	1	3	1
2	41	2	3	3	2	2	2	1	116	1	3	4	3	3	4	2
2	42	2	3	4	2	3	2	1	117	2	1	3	2	3	1	3
2	43	4	3	4	4	3	4	1	118	4	3	3	3	3	4	4
2	44	2	3	4	2	3	3	1	119	4	3	3	4	1	3	4
2	45	3	3	3	3	2	3	1	120	2	2	2	2	2	2	2
2	46	2	2	3	2	3	2	1	121	1	1	1	4	3	3	1
2	47	3	3	3	2	3	3	1	122	1	3	4	4	3	4	2
2	48	2	3	3	3	2	3	1	123	2	2	3	3	3	4	3
2	49	1	3	3	2	3	3	1	124	3	3	2	2	3	3	2
2	50	1	3	4	3	3	3	1	125	2	3	3	4	3	3	1
2	51	3	3	3	2	2	2	1	126	3	2	3	3	3	3	3
2	52	1	4	3	4	3	3	1	127	2	2	3	3	3	3	4
2	53	2	2	3	3	2	2	1	128	2	2	3	4	2	3	4
2	54	2	2	3	2	2	2	1	129	3	3	3	2	3	3	2
2	55	2	2	3	4	3	3	1	130	2	3	3	4	3	4	4
2	56	2	3	4	3	3	3	1	131	2	3	2	3	2	3	1
2	57	2	4	3	3	2	3	1	132	2	2	3	4	3	3	2
2	58	2	3	3	2	3	3	1	133	1	3	3	2	4	4	1
2	59	2	2	2	2	2	2	1	134	4	3	3	3	2	3	3
1	60	1	4	4	3	3	4	1	135	4	4	3	3	2	3	4
1	61	1	3	2	2	2	2	1	136	2	4	3	3	3	4	1
1	62	2	3	3	4	3	2	1	137	1	4	4	3	3	3	2
1	63	1	2	3	2	2	3	1	138	2	3	3	3	4	4	3
1	64	3	4	3	2	3	2	1	139	1	2	4	4	4	4	1
1	65	2	3	3	4	2	3	1	140	3	3	3	4	4	3	2
1	66	2	2	3	2	3	2	1	141	4	3	3	3	3	3	1
1	67	2	4	3	3	4	3	1	142	3	3	3	3	2	2	2
1	68	2	1	3	3	2	3	1	143	3	2	4	4	4	3	3
1	69	3	4	3	2	3	2	1	144	2	1	2	2	3	2	3
1	70	2	3	4	4	3	3	1	145	1	4	4	2	3	2	3
1	71	4	4	4	4	4	4	1	146	1	3	1	2	3	2	2
1	72	3	4	4	4	4	2	1	147	3	4	4	4	3	3	2
1	73	2	4	4	4	4	3	1	148	1	3	3	3	4	2	3
1	74	2	3	3	3	4	2	1	149	1	4	3	3	2	3	3
1	75	3	2	3	3	2	3	1	150	2	3	2	2	2	2	3



Seven Kerlinger items of Fig. 14, i.e., 3, 6, 10, 11, 13, 19, 5.

Notes:

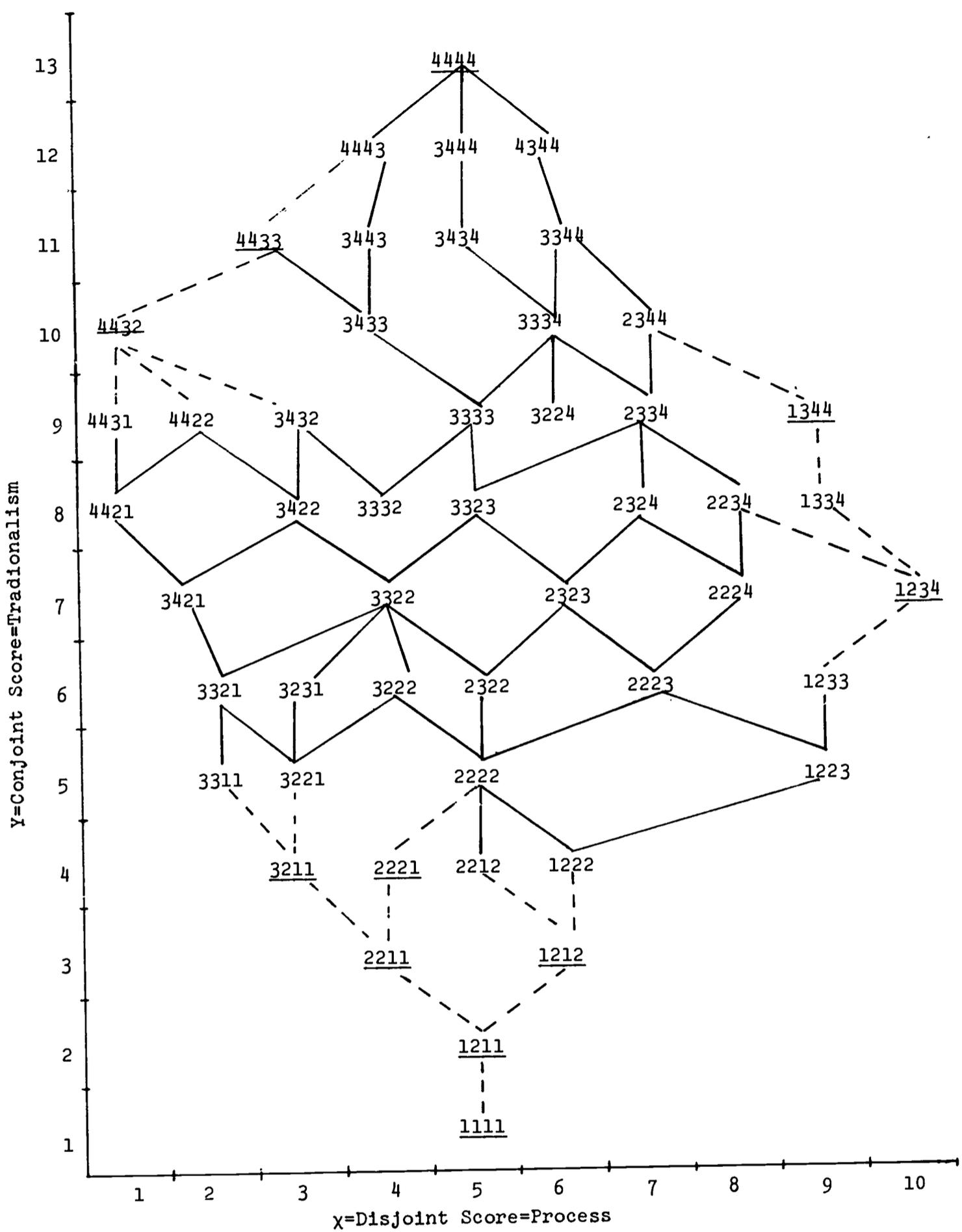
1. In above "space diagram" points are profiles.
2. First 150 profiles "sorted" out of all possible profiles (see Fig. 15) and plotted in the space diagram (Fig. 17) via role of: (a) highest frequency and (2) automatically taking next in descending order until 150 are chosen.
3. Numbers on top and right hand are typewriter coordinates to "find" space "plottings."
4. Coordinates define Cartesian space necessary to contain all profiles in the smallest space under the constraint of the contiguity principle. See Fig. 18 for definition of contiguity.
5. Respondents in profile no. 1 answered the seven Kerlinger items as follows: (see Fig. 15).

Item	Answer category (or alternative)
3	2
6	3
10	3
11	3
13	3
19	3
5	3

FIGURE 22 Paradigm for Interpreting¹How the Four²Kerlinger Items (10, 13, 19, 11) Partitioned the MSA I Space Diagram (Figure 17) for the U. S. Education Data Contained in Figure 14

Kerlinger Items		
<p>No. 10 The curriculum consists of subject matter to be learned and skills to be acquired.</p> <p>No. 13 The curriculum should be made up of an orderly sequence of subjects that teach to all students the best of our cultural heritage.</p>	<p>No. 19 Learning is essentially a process of increasing one's store of information about the various fields of knowledge.</p>	<p>No. 11 The true view of education is so arranging learning that the child gradually builds up a storehouse of knowledge that he can use in the future.</p>
No process mentioned	Process mentioned	Details of process mentioned

FIGURE 23 Partial Order of the Profiles¹ of the Four Kerlinger Items (10, 13, 19, 11) Which "Best" Partitioned the Space Diagram in Figure 17



¹The profiles represent an individual(s) responses to the four items of Fig. 22, e.g., profile 4421 is in row 8 and Column 1 and indicates that the person(s) chose(s) answer no. 4 to item 10, no. 4 to item 13, no. 2 to item 19, and no. 1 to item 11. Underlined profiles are "theoretical" ones filled in to illustrate the nature of the partial ordering in the system. All other profiles were empirically obtained.

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Chapter 4

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The previous chapters have attempted to be objective and factual. This¹ chapter will be more informal and will often use the first person. It is our opinion that much of the value of social science research is often lost in the attempt to be safe and to stick to the facts. While the latter position is obviously important, too many good research hunches are lost because they are not recorded.

The original research problem was to study cross-culturally the structure, content, and determinants of attitudes toward education and toward physically disabled persons. This turned out to be a rather formidable task but one which has already been productive and heuristic: fourteen doctoral theses have been completed, three, related to some aspect of the problem, are underway, and further research has already been funded to continue the project.

NATURE OF THE PROBLEM

The overall research task was conceptualized into three separate but related research problems: (a) attitudes toward education, (b) attitudes toward physically disabled (i. e. handicapped persons, and (c) the problem of cross-cultural measurement.

Guttman's definition of attitude as "a delimited totality of behavior with respect to something" was accepted as our guiding focus. The principal emphasis of the study was, thus, on attitudes, reflecting the belief that only through an awareness of such can action be understood.

Throughout the world, education is being offered as the hope of mankind; and yet everywhere one observes different, contrasting, and even contradictory and mutually exclusive views on the goals, content, and methods of education. Since World War II the effectiveness of medicine has also dramatically increased the absolute numbers of physically disabled persons. The increase of emotionally disturbed and mentally retarded persons is also likely to be on the increase but is more difficult to document. Accepting a relationship between attitudes toward an object as instrumental in influencing what is done with reference to that object clarifies and specifies our research problem.

¹This chapter summarizes the entire volume and is intended to be fairly self-contained. The reader may, however, wish to refer to other chapters or sections on specific issues.

REVIEW OF THEORY

The review of theory in Chapter 2 indicated that attitudes are important in predicting responses toward an object and that the stronger the attitude the more likely it will be that a person will take consistent action toward the attitude object. The review of literature, however, revealed a paucity of theoretically based empirical research on the structure, content, and determinants of attitudes.

Figures 1 and 2 in Chapter 3 contain the operational approach used in this study, and their use also facilitates an examination of the difficulties of the previous research. Close examination of the instrumentation used in most attitude studies indicates that much of it is at Level 1, the Stereotypical level. Two poles run through Fig. 2, from verbal-other to action-self. Most attitude research has been of the verbal-notions-about-others type rather than of the this-is (or was) my-behavior type.

A full exploration of the importance of attitudes requires evidence of its structure and determinants at all levels. The position taken in this research was that the facets in Fig. 1 in Chapter 3 constitute the necessary (if not sufficient) aspects that must be studied to understand the concepts of attitudes. The five facets of Fig. 1 yield 32 possible combinations, and six of these were chosen as being psychologically meaningful and potentially capable of instrumentation. The six were also chosen because of the structure inherent between them, the simplex ordering as portrayed in Fig. 2. In summary, our approach to attitude structure is operationally outlined in Figs. 1 and 2 and was used as a method for analyzing the attitude scales of the present study as well as a method, in conjunction with facet theory, for constructing a new scale.

The review of literature indicated that four classes of variables are important determinants of attitudes: (a) demographic factors such as age, sex and income; (b) socio-psychological factors such as one's value orientation; (c) contact factors such as amount, nature, perceived voluntariness, and enjoyment of the contact; and (d) the knowledge factor, i. e., amount of factual information one has about the attitude object. Figure 11 in Chapter 3 contains our initial specifications of these classes of predictors or determinants. These specifications will undoubtedly change as the research proceeds.

Many of the research studies were inconclusive or contradictory about the predictor variables, but close examination of the instrumentation reveals that often the so-called attitude scales were of different structures, thus, one could not expect the predictor variables to behave consistently. For example, there are volumes of studies on the relation between contact or experience and attitude. If

the attitude scale or questionnaire was of the Level 1 of Fig. 2, different relationships with contact could be expected than if the attitude scale was at Level 6.

Many of the studies on contact were also limited to amount of contact per se, whereas, there is considerable evidence that amount of contact or experience with an attitude object (e. g. , Negro, handicapped, education) is predictive of favorable attitudes only if concurrent with additional factors such as (a) voluntariness, (b) interaction with status equals, and (c) enjoyment of the contact. The contact hypothesis is reviewed in Chapter 2.

The "culture variable" was extensively reviewed since it presents special measurement problems. Three problems, although not unique to it, are intensified in cross-cultural research: (a) relevancy, (b) equivalency, and (c) comparability. These problems remain to plague this research and will be discussed below under recommendations. It was accepted that "education" and "handicapped persons" were relevant concepts to the respondents of the study and considerable care was taken to achieve concept equivalence in the translations of the research instruments, thus, comparability of data units was assumed. In summary, the theoretical stance of the present research fits in the social psychological framework and accepts four classes of variables as determinants of attitudes.

REVIEW OF HYPOTHESIS CONSTRUCTION

As indicated in Chapter 2, knowledge about the attitude object is an important determinant or predictor. However, it was omitted from the present project since the task of constructing and validating a knowledge scale for cross-cultural use would have unduly lengthened the project--as it is it took five years. A knowledge scale, however, is being used in the already ensuing research project discussed at the end of this chapter.

The 17 hypotheses of the study were divided into nine groups. In all but one instance the criterion or dependent variable of attitude is related to one of the predictor variables which were regarded as determinants. The nine groups were:

1. Relating Attitudes and Values
2. Relating Attitudes, Values, and Sex
3. Relating Attitudes and Contact
4. Relating Attitudes and Change Orientation
5. Relating Attitudes and Institutional Satisfaction
6. Relating Attitudes and Religiosity
7. Relating Attitudes and Group Membership
8. Relating Attitudes and Modernization Level
9. Relating Attitudes and Multidimensionality

Many of the hypotheses contained sub-divisions. If each of these were stated separately there would be 41 hypotheses in the study. The data analysis task becomes evident when one remembers there were four groups (in most nations) and eleven nations as well as analysis by sex division. The hypotheses were also so constructed to permit analysis of group and sex differences within, between, and across nations.

Instrumentation

Five research instruments were used in the study: (a) two attitude scales, (b) a value scale, and (c) two questionnaires. The attitude scales were used to measure the dependent variables of attitudes toward education and toward physically disabled persons, the value scale to ascertain the priority of interpersonal values of the subjects, and the questionnaires to secure the demographic, contact, change orientation, institutional satisfaction, and aid to education information necessary for the various hypotheses.

The research instruments were translated into the various languages of the study, in cooperation with the author, by nationals, who were also knowledgeable in the professional fields of education and rehabilitation.

Analysis Procedures

As indicated in the discussion of research design and analysis in Chapter 2, it was originally intended to make extensive use of multivariate analysis procedures, especially the non-metric Guttman-Lingoes computer programs at Michigan State University and the Hebrew University in Jerusalem. Only the Kerlinger scale was so analyzed with the MSA I multivariate program due to difficulties in getting the computer program operational at Michigan State University and because facet theory analysis of the attitude scales showed them to be of restricted content and primarily at the verbal-other pole of attitude structure.

The use of the MSA I computer program in the analysis of a fully facet designed Attitudes Toward Mentally Retarded Persons scale will be fully documented in the final report of an ongoing research project (see Chapter 3). Most of the analysis has already been completed and the use of multivariate procedures such as the MSA I provide much richer analyses than the older bivariate methods.

The present research project relied primarily on standard correlational and analysis of variance statistical procedures. The computer programs at Michigan State University allow one to deal with unequal sample sizes and missing data, persistent problems of all social science research. Special procedures were evolved for comparing multiple means, since often we were comparing the means of groups in eleven nations. Specific details of all analysis procedures are contained in Chapter 2 and in Appendix E.

RESULTS AND IMPLICATIONS OF HYPOTHESIS TESTING

As pointed out previously, the hypotheses of the study were divided into nine groups which can be further divided into at least 41 separate hypotheses (Table 30). In Chapter 3 we presented the results of hypothesis testing with limited discussion of the implications and possible interpretation. In the remaining sections of this chapter we will attempt to go beyond the specific data and discuss the implications of the findings.

Relating Attitudes and Values

The hypotheses dealing with these variables were designed to test for differences within and across nations for persons or groups with different interpersonal orientations. The review of literature indicated that interpersonal values predispose persons or groups toward attitudinal reactions that will be consonant with their basic value orientations. We were interested in attitudes toward two criterion objects: education and physically disabled persons. Our theoretical orientation stated that persons who scored high on "asset" value orientation toward others would be more progressive and less traditional in their attitudes toward education than those who scored low on asset orientation. Similarly, we hypothesized that high asset orientation would lead to favorable attitudes toward disabled persons. In summary, we postulated that those who viewed people intrinsically would be more liberal in their views about education and would be more open and concerned about disabled or handicapped persons.

The data for this set of hypotheses are not clear but they are suggestive. There is a trend in the direction of the hypothesis and more so in lesser developed nations. This would suggest that the value orientations in groups become more homogeneous in the more developed nations. This tendency runs throughout the study in several areas. It is also reasonable when one remembers that the less

TABLE 30 Summary of Hypotheses 1 through 17 Indicating¹ Acceptance or Rejection

Nation	Values ³ and Attitudes									Sex, Values, and Attitudes		
	H-1 (Table 6)			H-2 (Table 7)			H-3 (Table 8)			H-4 (Table 9)		
	Control ("L" Value) and Attitudes			Control ("R" Value) and Attitudes			Assist ("B" Value) and Attitudes			Sex Differences		
	PATE ⁶	TATE ⁷	ATDP ²	PATE ⁶	TATE ⁷	ATDP ²	PATE ⁶	TATE ⁷	ATDP ²	Sex & PATE ⁶	Sex & TATE ⁷	Sex & ATDP ²
1. United States	-	+	+	+	+	+	+	+	+	+	+	+
2. Costa Rica ²	-	-	+	+	-	+	-	-	-	+	+	-
3. Colombia	+	+	+	+	-	+	-	-	-	+	+	-
4. Peru	++	+	-	-	+	+	-	-	-	+	-	-
5. England	+	+	+	+	++	+	+	+	+	+	+	-
6. Holland	+	-	-	++	-	+	+	+	+	+	+	-
7. France	-	+	+	-	+	-	-	-	-	+	+	+
8. Yugoslavia	++	-	+	+	-	+	+	-	+	+	+	+
9. Denmark	-	-	+	+	-	-	-	-	-	+	+	+
10. Japan	+	--	+	-	-	+	-	-	+	+	+	+
11. Belgium	++	+	+	+	-	+	+	+	+	+	+	+
Numbers per code	3	0	0	1	1	1	1	0	1	7	4	2
++	0	0	0	0	0	0	0	0	0	0	0	0
P+	4	6	9	7	3	8	6	3	7	3	4	4
+	0	0	0	0	0	0	1	0	0	0	0	1
--	4	5	2	3	7	2	3	8	3	0	2	3
0	0	0	0	0	0	0	0	0	0	0	0	1
Across-Nations	00	00	00	00	00	00	00	00	00	++	++	++

Nation	Institutional ¹¹ Satisfaction ⁴ and Attitudes																									
	H-8 (Table 18)																									
	Status-Quo																									
	PATE ⁶					TATE ⁷					ATDP ²															
	E ¹¹	S	U	B	L	L-S	N-G	H	C	E	S	U	B	L	L-S	N-G	H	C	E	S	U	B	L	L-S	N-G	H
1. United States	+	-	-	+	-	+	-	+	++	-	-	-	+	--	--	--	-	+	-	+	++	-	-	-	+	+
2. Costa Rica ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Colombia	+	-	+	-	-	-	-	+	+	-	+	+	+	-	-	-	-	+	+	--	-	-	-	-	-	+
4. Peru	-	+	-	+	+	-	-	+	+	+	+	+	++	-	-	-	-	-	-	-	+	+	++	-	-	-
5. England	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
6. Holland	+	-	-	+	+	-	-	+	++	+	+	+	+	--	-	-	-	+	+	+	++	-	-	-	+	+
7. France	-	+	-	-	-	-	-	+	++	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
8. Yugoslavia	-	-	-	-	+	-	+	+	++	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
9. Denmark	--	+	+	-	-	+	--	+	++	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
10. Japan	--	-	-	-	-	++	+	--	-	-	-	+	++	-	+	+	+	+	+	+	+	+	+	+	+	+
11. Belgium	-	+	-	+	+	+	-	+	-	-	-	+	-	-	+	--	+	++	-	+	+	+	+	-	-	-
Numbers per code	0	0	0	0	0	1	0	0	4	0	1	0	2	1	0	0	0	1	1	0	2	0	1	0	0	0
++	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+	4	6	3	6	5	5	6	8	3	4	6	6	0	1	3	5	5	7	4	5	4	3	3	4	6	7
--	1	0	0	0	1	0	1	1	1	1	3	0	7	2	1	1	2	0	0	1	1	0	0	0	0	0
-	6	5	8	5	5	5	4	2	3	5	0	4	1	6	6	4	3	2	5	4	3	7	6	6	4	3
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Across-Nations	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

- ¹Codes:
- ++ = Significant difference in direction of research hypothesis (P < .05).
 - P+ = Partial rejection of null hypothesis; i. e., refers to "Multiple-means" hypotheses; it is "partial" in that not all of the pairs of means were statistically different or they were not tested. However, a code of P+ does indicate that the criterion mean was as hypothesized.
 - + = Positive direction of research hypothesis.
 - = Significant difference "against" research hypothesis (P < .05).
 - = Negative direction of research hypothesis.
 - 0 = Not tested.
 - 00 = Not hypothesized.
- ²Low ATDP (Attitudes Toward Disabled Persons) scores indicate favorable attitudes except in Costa Rica where the reverse is true.
- ³Low scores on "birth control" indicate in-favor-of.
- ⁴High scores on "institutional satisfaction" indicate satisfaction with the status quo.
- ⁵SER = Special Education-Rehabilitation sample.
- ⁶PATE = Progressive Attitudes Toward Education (Appendix C).
- ⁷TATE = Traditional Attitudes Toward Education (Appendix C).
- ⁸Value variables (Appendix C).
- L = Leadership; R = Recognition; B = Benevolence



developed nations are more socially stratified and value orientations more sharply differentiated. Within nation analyses of more contrasting groups than those used in our study might obtain comparable within nation findings to that in the cross-cultural analyses.

The relationship between traditional attitudes toward education and values was also clearer than that with progressive attitudes. Knowing a person's or group's value orientation is therefore more predictive of traditional attitudes than it is of progressive attitudes. This further supports Kerlinger's position that "educational traditionalism" and "educational progressivism" are not bipolar positions but separate continua. The relationship also fits the everyday observations that progressivists come from all walks of life but that traditionalists are more homogeneous on various demographic and related characteristics. One could postulate that as a society becomes more urban, industrialized, and educated that it will become more progressive in its educational attitudes but that anomic members of that society will be just as traditional as the norm in an underdeveloped society. One could further interpolate from this that as the value orientations begin to change in a society, tensions will increase as the more behavioral or attitudinal implications of these value orientations become evident and visible.

Analysis of all of the subscales of the value instrument reveal some compelling implications. The value of Support measured the extent to which a person felt it important to receive encouragement from others and the value of Conformity the extent to which one does that which is accepted and proper or follows rules and regulations. The data in Tables 26-29 indicate a high relationship between socio-economic-educational development and high scores on support and conformity. This may at first sound contradictory to known facts of less-and-more developed nations since conformity is highly important in traditional societies.

One can, however, postulate that high national development calls for cooperative versus individualistic behavior and that the personalismo and machismo evident in underdeveloped nations does not lead to national development. Furthermore, establishing procedures and then following them may be more predictive of national development than the cohecho, soborno, or mordida method evident in much of Latin America.

Value orientation was also more predictive of attitudes toward disabled persons than it was of attitudes toward education. Perhaps, values are more clearly related to "personal" attitude objects like disabled persons than they are to "conceptual" ones like education. Further research is needed

to explicate these relationships.

Relating Attitudes, Values, and Sex

It was hypothesized that women would be more interested in doing things to help others (e. g. , the handicapped) and more progressive in attitudes toward education than men. In the need to help others, the data indicate a cross-culturally invariable relationship; women did score higher on Benevolence than men, both within, between, and across nations in seven of the ten nations, and was directionally as predicted in the other nations.

While this does describe the status quo for these variables, there is some evidence to indicate it may be changing. As indicated in Chapter 3 (H-4) the nations in which there were no sex differences on Benevolence were those nations (England, France, Denmark) where there are less societal differences between the sex roles of loving and caring. Perhaps, as either personal affluence or national development occurs both men and women can be tender-minded rather than assigning tough-minded roles to men and tender-minded roles to women. This is in agreement with the gender versus sex differentiation role model proposed by Useem (1966).

The data does indicate some relationship between sex and attitudes toward the disabled, both within and across nations, but the relationship is neither strong nor consistent from nation to nation. Females also tend to be more progressive in their attitudes toward education than men. If amount of education had been held constant between the sexes the relationship may have been even stronger. This agreed with our postulation that women, because of their child-caring role, would be more progressive in their attitudes toward education.

Relating Attitudes and Contact

The contact hypothesis has been a re-occurring one in attitude research. As indicated in the review of literature, however, the research in this area has been highly inconsistent and often contradictory. It is our position that this has occurred primarily for two reasons: (a) the research has been on different levels of attitude and (b) contact has not been adequately operationalized in the various projects.

The present research project did not deal adequately with this problem either, since it also used attitude scales that were primarily of the stereotypical or verbal-other type.

The attitude scale on mental retardation (ABS-MR), discussed under Guttman facet theory in Chapter 3, will deal with this problem more systematically, since the structure and content of the ABS-MR scale ranges from the stereotypical to the actual behavior levels; i. e. , from the verbal-other to the behavior-self level.

The data of the present research does contain some interesting implications about the role and function of contact in attitude formation:

1. Amount of contact per se is more clearly predictive of attitude intensity when the attitude object is a personal rather than a conceptual one.
2. In general, amount of contact per se is not predictive of favorable attitudes.
3. Perceived enjoyment and voluntariness of the contact are predictive of attitude favorableness.

The preceding three findings lead to the following hypothesis: High frequency of contact with a personal attitude object will be associated with favorable attitudes toward the object if high frequency is concurrent with perceived enjoyment and voluntariness of the contact. In attitude change programs this would mean that one must use means to help the respondents to feel that the contact is voluntary as well as using means to help them enjoy the contact. One could then predict that their attitudes toward the attitude object would be positive and that continued amounts of contact would increase the intensity of that enjoyment.

This raises interesting speculations about attitudes of parents of handicapped children. What means can be used to increase their sense of voluntary contact and to help them to enjoy the contact? One can at least speculate that as the parent feels that the handicapped child was not forced upon him by some outside source (e. g. , God, fate) and that having a disabled child does not denote either a weakness in himself or a rejection by society, that he will then be able to respond to the other assets of the child and consequently enjoy him more.

The findings on contact also raise interesting questions about the motivation of many Americans (especially women) who go into teaching. If, as so often happens, the girl goes into teaching because "what else can she do" or "she can always teach, no matter where her husband goes" what happens to her sense of voluntariness? If she, also, does not then enjoy her first contact, one can predict that her attitudes toward education will be negative and that it will increase as she continues to teach. If teacher-training institutions can find ways of assisting teacher candidates to

examine the implications of choosing to teach and devise means of helping them enjoy their first teaching contacts. one could predict that attitudes of teachers would be more positive toward education and toward teaching.

Relating Attitudes and Change Orientation

It is an accepted axiom in education, and especially among university students, that teachers and teacher candidates are not change-prone people. Leading figures in education, however, are asserting that education must prepare people for change. For example, it is predicted that many of today's youth will go through job retraining two or three times as technology or social reorganization makes their jobs obsolete. The set of hypotheses in this section was based on the belief that those who are oriented toward change will score higher on progressive child-centered views of education as well as more positive toward disabled persons, since they will not be committed to the status quo. Neither will they be afraid to experiment with new ideas or methods, which is required in progressive education and in the education and care of the disabled or handicapped.

The present data support the hypothesis that those who score high on change orientation will be more progressive and less traditional in their attitudes toward education and similarly more positive toward the disabled.

Being in favor of trying out new methods of child-rearing and practicing birth control was especially predictive of progressive attitudes toward education. The author has long observed in Latin America and Michigan that the teachers of disabled or handicapped children are more change oriented than regular teachers. The data indicate this relationship to be true in all nations of the study. Teacher training programs should examine the factors that lead to being open to change. Perhaps, necessity really is the mother of invention. The teacher of disabled or handicapped children must experiment and work with individual differences, or she does nothing, whereas, the regular teacher can teach to the mode and enough will happen (perhaps, in spite of her) that she will not feel compelled to experiment; and in the current state of affairs neither will the educational establishment encourage her to do so.

Relating Attitudes and Institutional Satisfaction

It has long been observed that change follows the malcontent. Studies of the characteristics of change agents or innovators also indicate that change only occurs when persons or groups are dissatisfied. It was our belief that those who were satisfied with the status quo of major social institutions would also be more traditional and less progressive in their views toward education as well as less positive toward the disabled since their education and care often necessitate changing things.

The data clearly support the relationship between dissatisfaction with the effectiveness of designated social institutions, such as the schools, labor, businesses, and the church, and the attitude variables.

A cross-national analysis of the institutional satisfaction variables is interesting. Tables 26-29 indicate that a relationship exists between the manner in which businessmen are viewed as doing a good job and the level of national development.

All the groups but one (i. e. teacher) rate the effectiveness of businessmen (variable no. 31) such that a positive relationship exists between their rating and their nation's comparative national development. Apparently the groups are able to rate the institution of business within their own nation such that the nation also maintains its comparative international development rank, i. e., if we assume that the effectiveness of businessmen has a relationship to national development.

Again, the teacher group is out of touch with the business world and is not able to make the comparative international evaluation, although, their rankings are also in the same direction but are not statistically significant. Interestingly enough, this type of result can also be viewed methodologically as evidence of having obtained cross-cultural relevancy, equivalency, and comparability of the concept being tested.

Relating Attitudes and Religiosity

The social-psychological literature asserts that high commitment to religion predisposes the individual to being negative to change and progressivism. The hypotheses in this section were devised to test such relationships. The within nation analysis of the data on attitudes and religiosity indicated little support for the hypotheses. Examination of the cross-national findings (Tables 26-29), however, offer some interesting results. Two questions were used: (a) how important is your religion in your everyday life--variable no. 23 and (b) to what extent do you keep the rules and regulations of your

religion--variable no. 25. In the SER¹ and L groups (Table 26 & 29) there was a significant negative relationship between both of these questions and the percentage of national income spent on education; in the E group (Table 27) it was significant on the importance question, and in the M group (Table 28) on the adherence question. In other words, as the percentage of national income spent on education increases, the perceived importance and adherence to religion decreases.

The M group (Table 28) is interesting from another viewpoint: as national per capita income increases the stated importance of religion significantly increases but adherence does not. Apparently businessmen feel that religion is important to them to the extent they reside in a wealthy nation, whereas, the labor group (Table 29) sees a negative (although not statistically so) relationship between level of national per capita income and importance of religion.

Both the M and L groups, however, perceive the church (variable no. 36) as doing a poor job as the level of national development increases. One is reminded of Gandhi's statement, "To a starving man, God is half a loaf of bread!"

Relating Attitudes and Group Membership

It was hypothesized that the SER group was the most benevolent, progressive and change oriented group in our study, since they work in a less structured and newer field of education and social care.

The data generally support the relationship between the groups of the study on attitudes toward the disabled. An interesting summary of the five observations of H-10 might be: In societies with a high standard of living (United States and Denmark) the manager-executive regards the physically disabled person as limiting production, and in all societies the regular teacher regards the disabled or handicapped child as difficult, interfering with, or impeding the information acquiring process.

The SER group was hypothesized as being more progressive and less traditional in its educational attitudes than the teacher, manager, or labor groups. The hypothesis was supported for traditional attitudes to a larger extent than it was for progressive attitudes in the within nation comparisons.

¹The four sample groups are identified as follows:
SER--Special Education and Rehabilitation workers
E--Elementary and Secondary Teachers
M--Managers and Executives
L--Labor: white and blue collar workers

As pointed out in Chapter-3, the SER group contained diverse subgroups, i. e. , teachers, physical therapists, physicians, and "matron" type personnel. One can postulate that, since the data were directionally in favor of the hypothesis, partialing-out the education segment would likely increase the mean differences, thus, producing the hypothesized results. This is on the assumption that the related personnel in the SER group are less progressive, thus, depressing the mean score.

The hypothesis for SER group membership and traditional attitudes was fully supported. This is in agreement with our initial observations throughout many nations that the people who work in the SER area are less traditional. Our initial observations also postulated they would be more progressive. The data do not fully support the latter position. Two observations provide a rationale for this lack of support of the hypothesis on SER group membership and progressive attitudes toward education: (a) the heterogeneous nature of the group as pointed out above and (b) the observation that traditionalism is apparently more predictable than progressivism.

The hypothesis on SER group membership and value organization received strong support on all three of the value variables: Benevolence, Leadership, and Support. The Benevolence value emphasizes doing things to help others, Leadership emphasizes being in a power position over others, and Support emphasizes the need for approval from others. It was our belief that the SER group, because of its willingness to work in a newer field of education, i. e. , with the handicapped, was more interested in helping others, had less need for power over others, and were more self-sufficient and willing to work alone, thus, needing the approval of others less than other groups in the study.

The across nation support for this hypothesis (H-13) is even stronger than the within nation data. This provides added support for Kerlinger's position that "individuals having the same or similar occupational or professional roles will hold similar attitudes toward a cognitive object which is significantly related to the occupational or professional role" (Kerlinger, 1956, p. 290).

In the across nation analysis of the data, women scored significantly higher on the need to help others (Benevolence) and lower on the need to dominate or be in a power position over others (Leadership), but were not different from men in the need for approval from others (Support).

The group membership hypothesis also stated that the SER group would be more change oriented than the other groups. The data are complex and difficult to interpret systematically but, in general, are in favor of the hypothesis.

An interesting interpretation is possible concerning the birth control variable. The SER group was significantly more in favor of birth control than the other groups. One can interpret that they "see the results from the lack of birth control." This data also agrees with the findings of Mader (1965) that teachers of severely mentally retarded children are more in favor of birth control than teachers of mildly retarded children.

These findings lead to an interesting interpretation: "Being in favor of birth control requires personal experience with cases which show negative results from lack of birth control." Additional examples are available in the field of disability: over 80 percent¹ of the deaf children in the Baghcheban School for the Deaf in Teheran, Iran come from cousin marriages.

In Muslim communities cousin marriages are favored since Muslim tradition states that "cousins are married in heaven." It will be interesting to ascertain whether the teachers' experience with the fact that "cousin marriages and deafness go together" will alter their own marriage patterns, or whether the religio-philosophical tradition will win.

Relating Attitudes and Modernization Level

This hypothesis was devised to test our belief that socio-economic-educational development is related to, if not dependent upon, attitudinal orientation.

The data generally support the position that attitudinal or psychological factors are related to modernization. Apparently attitudinal modernity and economic development are at least correlates; the cause-effect relationship is of course open to discussion. The more affluent nations are more positive toward the physically handicapped and are less traditional in their attitudes toward education. Again, attitudes toward progressive education were not as clearly structured or related to development level as were traditional ones. This could suggest that as the old traditional order begins to change in an underdeveloped nation that those who espouse progressive attitudes toward education will come from all levels. As has been pointed out several times throughout this chapter, it is apparently more difficult to predict the progressivist than the traditionalist.

As discussed more fully in Chapter 2, national modernity refers to "a set of attitudes, values, and ways of feeling and acting, presumably of the sort either generated by or required for effective

¹Personal conversation with the director, February 18, 1968.

participation in a modern society " (Smith and Inkeles, 1966, p. 353).

Relating Attitudes and Multidimensionality

The analysis of the Kerlinger attitude scale via the Guttman-Lingoes multidimensional computer program (MSA I) indicates that the Kerlinger scale is at least not unidimensional. The dimensionality was difficult or impossible to ascertain as the semantic structure of the scale was not rigidly predetermined by some scheme such as facet theory.

The MSA I analysis of the 20-item Kerlinger scale did indicate that seven of the traditional and six of the progressive items seemed to go together. Due to time and cost problems, only the traditional items were analyzed for this report. The analysis of the seven traditional items (Figs. 14-23) indicated that a partial order existed among them and that high or low scores on traditional attitudes toward education were related to the extent to which the "specificity of educational process" was denoted.

The initial MSA I analysis of the Attitudes Toward Mental Retardation scale (ABS-MR) was much clearer in both structure and content: what Guttman is now calling Dimension I and II, or Conjoint and Disjoint. A Conjoint Score resembles and may imply an additive concept and corresponds approximately to our structure concept. A Conjoint Score can be assigned by summing a subject's responses to the items of the attitude instrument, i. e., in the ABS-MR scale, to the items of each level separately. A Disjoint Score implies a difference concept and corresponds approximately to our content concept.

When there is at least a notion of partial order in the attitude universe a Disjoint Score can be assigned by locating two items which divide the Cartesian space. Thus, a subject would have two scores. When there is at least a partial order in the attitude universe these two scores correspond approximately to the two coordinates given (Fig. 16) on the MSA I computer print-out (or to a rotation thereof); i. e., when the MSA was run in two dimensions.

Both the Conjoint Score and the Disjoint Score are measures of attitude content, the former being a sort of additive measure within each of our six levels (i. e., in Fig. 2) and the latter being a measure of how a subject differs or varies on the content within the level.

8

The ABS-MR research project¹ will attempt to analyze fully the data via these two dimensions; i. e. , the Guttman Conjoint and Disjoint dimensions. If we are successful in this, a truly multi-dimensional analysis of both attitude structure and content will have been achieved and Guttman will have introduced another new concept and method into social psychology, since both of these are content dimensions and are in addition to the intensity function.

CROSS-CULTURAL ANALYSIS OF THE DATA

The data contained in this project are rich in analysis possibilities and comparatively little of it has been used in the present volume. Tables A. 1-8, and Tables 26-29 are practically inexhaustible in analysis possibilities. Table 30 contains a summary of the results of hypothesis testing.

Tables A. 2, 4, 6, and 8 contain the statistical significance levels from testing the 45 variables across nations. The variables are grouped into seven main classes of variables: those dealing with (a) attitudes, (b) values, (c) contact, (d) demographic and related factors, (e) institutional satisfaction, (f) change orientation, and (g) financial aid to education.

Close examination of Tables A. 2, 4, 6, and 8 indicates there are 47 possibilities for differences to occur across nations, i. e. , the rows in the tables, and 45 possibilities for differences to occur between nations, i. e. , the columns of the tables. The data can be used to assess the effectiveness of a variable to differentiate between groups across all nations or to differentiate between two specific nations across all variables. This sort of analysis enables one to ascertain which variables were most effective in ascertaining cross-cultural differences, or to ascertain which nations were most or least alike on any or all variables.

The SER group in the eleven nations (Table A. 2) differed on 44 of the 45 variables; i. e. , 98 percent of all possible differences were significant (see last two rows of comparison 1 in Table A. 2). Taking those nations in which all variables were tested in Table A. 2 (i. e. , comparisons 4, 6, 10, 11, 21, 25, 26, 36, 37, 47) Colombia and the United States, and Colombia and Japan tie for differing most from each other (comparisons 4 and 26 respectively). Based on this information one could then predict that the United States and Japan would differ less from each other than they do from Colombia.

¹Using the ABS-MR Scale, data will be gathered in the following nations: United States, British Honduras, Brazil, Colombia, Germany, Iran, Israel, Yugoslavia, and possible India and Poland.

This is indeed the case as indicated by comparison 11, which shows that the number of differences between the United States and Japan was 60 percent, whereas, it was 71 percent between each of them and Colombia.

The above analysis indicates that certain variables are more effective cross-nationally than others; it tends to be those dealing with highly affective and socially important matters. The cross-national differences for the SER group (Table A. 2) are much higher for traditional attitudes toward education than for progressive attitudes, 72 versus 43 percent respectively. In the value scale analysis the SER groups (Table A. 2) differ most (72 percent) cross-nationally on the Conformity value and least on the Benevolence value (23 percent).

Analysis of Tables A. 2, 4, 6, and 8 also assists in determining the differential effectiveness of a variable within and across nations. As indicated by Hypothesis 9, the religiosity variable was not effective in within nation analyses where we attempted to categorize people as high or low on religiosity. In the across nation analyses, however, the variable worked very well in differentiating the SER national groups: 72 percent of them differed on the importance of religion and 74 percent of them differed on religious adherence (Table A. 2, variable 23 and 25). Perhaps nations have a comparatively homogeneous outlook toward religion that makes within nation differentiations difficult, whereas across nation differences are easier to ascertain. If the above analysis is true, perhaps, a nation's religious stance is predictive of national development. Examination of Tables 26-29 offers some supportive evidence for this thesis. The correlations between the religiosity variables (nos. 23 and 25) and level of development tend to be negative for all except the manager group, and even in the M group, high adherence to the rules and regulations of one's religion is negatively related to high national development.

Extended examples are apparent in Tables A. 2, 4, 6, and 8 on the similarities and differences between the four groups of our study. Some variables also work better for some groups than they do for others. The above discussion has centered on the SER group (Table A. 2). Similar data for the E, M, and L groups are contained in Tables A. 4, 6, and 8.

The educator group (Table A. 4) differed more on traditional than on progressive attitudes toward education; 79 versus 55 percent, respectively. The E groups also differed markedly on the perceived importance of religion; 81 percent of the possible differences were significant. It is also

interesting to note in the comparison of the pairs of nations in Table A. 4 that teachers in European nations differed the least from each other.

Managers (Table A. 6) differed most on attitudes toward future planning (72 percent), the importance of religion (73 percent), and the intensity with which they held their attitudes toward the disabled (73 percent). The M groups differed least on support (11 percent), enjoyment of contact with education (7 percent), and perceived alternatives to educational contact (21 percent).

The Labor groups (Table A. 8) differed most on attitudes toward the disabled (83 percent), amount of education (79 percent), and the benefit of planning for the future (82 percent). The L group differed least on benevolence (3 percent), the effectiveness of the university (0 percent), attitudes toward new methods of child-rearing (0 percent), and increase of local aid to education (0 percent).

RECOMMENDATIONS

The recommendations for future attitude research are of several sorts, some rather well founded in fact and others at a more intuitive level. The latter are presented in the belief that in the last analysis research progresses because of the commitment and even because of the prejudices of the researcher. A firm stance is often at least heuristic and the history of science well documents the thesis that "every observation must be for or against something."

Conceptual-Theoretical Approach

The data from the eleven nations largely support the conceptual-theoretical approach used in this study. There was more support for the conceptual approach in the cross-cultural analyses. Perhaps, as one attempts to ascertain within nation differences between groups the measurement problem becomes more acute, since the variable being tested is likely more homogeneous.

The hypothesis dealing with the relationships between concepts like "contact" and "attitude" generally received less support than the hypotheses dealing with differences between groups or nations. This would either indicate that further refinement is needed in the postulated conceptual relationships or that research design problems precluded one securing the hypothesized results. At this point in time it is our opinion that the conceptual approach is sound enough to warrant pursuing it further, and that refinements in research design, instrumentation, and analysis methods may allow the variables to operate as postulated.

The primary addition to the research design should be the addition of the information variable as discussed in Chapter 3. The ongoing ABS-MR project is using an Information Scale which will allow us to see how the variable operates in comparison to the influence of other variables, such as values, age, sex, and contact.

Research Design and Sampling

The present research design used the principle of known groups and sampled from them. The sampling of the groups should be more systematically determined in future research and/or nationally representative samples secured if the research objectives indicate such. Experimental designs should also be evolved to test the relationships between the criterion or dependent variable of attitudes and the multivariate influence of the independent or predictor variables. Attitude change research designs would of course, be the ultimate for the practitioner who, once having located negative attitudinal respondents, wants to change these attitudes to more positive ones.

Instrumentation

The review of literature and the present data indicate this to be one of the two major areas of weakness in attitude research. The type of semantic structure imposed on the variables by paradigms such as those contained in Figs. 1, 2, 8, and 9 can bring order to chaos evident in the instrumentation area.

Facet theory promises to be extremely useful in determining the content of research instruments. As this technique becomes more known and available to the social scientist, it is likely that attitude research instruments will contain the kind of content that will allow systematic quantitative predictions from qualitative data. The ongoing ABS-MR research project uses instrumentation which was fully evolved via facet theory principles. The data already indicate (Figs. 12 and 13) that the predicted quantitative relationships are being obtained between the semantic levels contained in Fig. 2. The within level analysis of the content levels is being pursued via MSA I analysis procedures discussed below.

Analysis Procedures

This is the second major area of weakness in attitude research. Most of the previous research has been of the bivariate and parametric nature rather than being multivariate and non-metric (non-parametric) in nature. The advent of computers and computer programs of the Guttman-Lingoes

multivariate variety will increasingly permit large scale processing of multiple variable and multivariate data banks. If facet theory or similar methods of ordering semantic meaning are employed in research design and instrumentation, social science will have achieved a breakthrough in the analysis of qualitative data.

It is our contention that the nature of most of the "universe of contents" in attitude research is such that multivariate analysis methods must be employed. The MSA I computer program is truly multivariate and is the most general of the Guttman-Lingoes series. The program can handle qualitative and/or quantitative data, monotone and/or polytone items, with up to 20 categories, and permits one to test not only the unidimensional hypothesis, but the multidimensional ones as well.

The MSA I computer program starts with a purely qualitative characteristic function denoting presence or absence, but produces a Euclidean space into which person-types can be mapped in such a way as to require a minimum number of coordinates to partition subjects by categories over all items simultaneously under the constraint of contiguity.

The ABS-MR research project will use the MSA I program extensively. Since the scale was also based on facet theory it will afford an opportunity to ascertain if the statistical structure extracted by the MSA I fits the semantic structure imposed on the universe of content contained in the mapping sentence of Fig. 8.

Relevancy, Equivalency, and Comparability

Three research problems, although not unique to it, are compounded in cross-cultural/national/linguistic studies. Considerable research effort is being expended in attempts to devise methods of dealing with the cross-cultural comparability of data units. Three concepts emerge as central to this attempt: relevancy, equivalency, and comparability.

The problem of relevance has not received as much attention as the other two concepts, but it is our contention that it is of primary importance. In many nations prior to World War II, the concept of "education of handicapped children" was not a relevant one. The level of medicine was such that most people died who became ill or received injuries, and consequently, comparatively few chronically ill persons remained to need education or rehabilitation. As the absolute numbers of handicapped increased in these societies, due to medical intervention, the concept of the education of the handicapped became articulated into public consciousness as a relevant problem. Cross-

cultural research must solve the problem of relevancy before it can proceed to the problem of equivalency.

The problem of equivalency in cross-cultural research is an aspect of the larger research problem of the nature of input-stimuli to the research subject. Equivalency deals with the problems of meaning and problems of quantity. How do we construct an attitude item such that it will mean the same thing to different cultural and/or national samples?

If we then assume that most concepts used in an attitude item are quantitative concepts and vary in amount, but do we also construct the item so it will contain the same amount of meaning to the varying samples, e. g. , how do we convey the meaning of handicapped and at the same time devise methods for measuring differing amounts of that meaning.

Continued research is needed to produce more exact methods for ascertaining the existence and/or measurement of cross-cultural meaning systems, since we must learn how to compare "apples and oranges" in multivariate research; i. e. , we actually do this now in multiple correlation problems.

When the above problems are solved we will then be able to produce comparable data units and can compare units or test relationship between concepts with much more assurance.

Future Research Direction

Part of the future research direction has already been presented in the discussion and references to the ABS MR project. It is our intention to pursue the development of the ABS scale such that it can be used (with at least minimal changes) to study attitudes toward any "personal" attitude object such as the blind, mentally ill, Negro¹, etc. It is also rather obvious that it has evolved into a problem of methodology as well as a project with a substantive aim. The methodological aspects of the scale development may turn out to be the most important, although they were not initially the raison d'etre.

The second substantive research area will be the development of the Attitudes Toward Education Scale outlined in Fig. 11. It is our contention that a scale of this sort is mandatory if meaningful research is to be conducted in the complex domain of attitudes toward education and that the development of the scale is compelling in cross-cultural research in attitudes toward education.

¹See page 73, 74 for information on the Negro/white attitude project.

APPENDIX A

**Statistical Material
(Tables A. 1-69)**

See list of tables following the Table of Contents.

TABLE A.1 Sample Size, Means, and Adjusted Means¹ on 45 Variables for Rehabilitation Personnel (SER) in an Eleven Nation Cross-Cultural Study of Attitudes Toward Education and Toward Physically Disabled Persons

Disabled Persons

Variable	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female	
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
1	103	44.27	64	37.89	61	48.06	29	51.56	18	50.72	45	48.51	66	48.48	46	51.41	44	49.00	50	49.62	180	47.38	385	46.71
2	103	59.80	64	48.67	61	66.61	29	61.50	18	60.50	45	60.71	66	65.97	46	64.72	44	63.80	50	61.52	178	62.25	345	60.45
3	104	28.30	63	28.23	57	28.43	30	30.50	22	25.59	48	29.02	68	29.88	44	31.84	44	27.11	50	28.11	180	28.05	345	28.29
4	103	30.51	63	31.87	58	36.57	30	33.48	22	30.18	48	32.29	64	33.59	46	34.72	44	33.52	50	33.46	176	33.23	352	32.78
5	102	31.16	63	31.14	58	32.02	29	32.99	22	30.81	48	30.50	66	31.01	47	32.32	44	34.50	50	31.46	180	30.96	349	31.02
6	102	32.83	63	32.84	58	36.75	29	32.31	22	32.00	48	32.48	62	33.07	44	34.95	44	34.93	50	31.28	176	33.79	349	33.43
7	101	18.21	64	13.90	59	9.78	70	13.56	18	13.61	42	14.62	64	12.95	45	12.91	44	16.54	49	13.04	175	13.42	339	14.37
8	101	15.66	64	10.11	59	22.95	72	18.78	18	14.28	44	17.23	64	17.44	45	20.93	44	11.90	49	17.75	176	17.15	340	18.19
9	101	10.67	64	8.69	59	7.13	72	6.89	18	6.22	44	5.79	64	6.03	41	7.42	41	7.90	49	6.93	174	7.84	339	7.91
10	101	16.21	64	17.05	59	14.35	72	17.34	18	20.00	44	18.98	64	19.11	44	19.11	44	22.45	49	21.16	176	18.38	340	17.38
11	101	20.27	64	19.97	59	21.81	72	19.39	18	21.69	44	19.63	64	20.75	44	19.10	44	20.27	49	21.16	176	19.24	340	21.01
12	99	10.58	64	10.47	59	13.46	72	13.00	18	13.22	44	13.65	64	13.59	44	10.38	44	11.57	49	10.36	176	13.40	333	10.95
13	102	5.46	64	4.42	47	4.72	12	4.16	22	7.36	31	2.96	41	5.54	46	7.06	44	6.32	50	6.68	142	5.44	352	5.82
14	102	3.46	64	3.42	47	3.60	11	3.45	22	3.91	28	3.71	35	3.66	43	3.61	43	3.58	50	3.66	142	3.59	362	3.66
15	101	3.72	64	4.12	41	4.07	11	4.10	17	4.11	26	3.23	34	3.70	42	4.56	42	4.97	40	4.00	141	3.58	322	3.32
16	102	4.18	61	4.13	61	3.65	29	3.69	17	4.72	47	3.76	66	4.67	46	4.56	46	4.79	40	3.55	174	4.14	346	4.22
17	102	2.48	61	1.00	58	3.25	28	3.21	16	2.33	47	3.51	58	2.02	58	1.87	43	2.30	42	1.95	163	2.41	342	2.41
18	100	3.80	64	3.62	58	3.62	29	3.41	18	3.84	46	3.65	64	3.37	46	3.28	43	3.60	47	3.02	174	3.42	342	3.64
19	94	3.88	64	3.78	58	4.02	29	4.42	17	4.70	46	4.55	59	3.69	41	2.46	43	4.40	47	1.67	151	3.74	290	3.58
20	99	4.39	64	4.41	60	2.72	24	2.72	20	3.20	48	3.46	66	3.26	44	3.68	44	4.14	50	4.38	161	3.60	300	3.66
21	100	3.01	63	3.03	59	2.35	26	2.76	20	2.85	48	2.85	63	2.16	47	2.44	44	3.20	50	2.26	160	2.75	299	2.58
22	104	36.40	63	31.00	65	29.17	29	26.03	22	41.32	48	31.58	68	33.01	44	37.36	44	35.79	50	35.80	182	34.58	358	33.26
23	104	2.82	63	2.37	67	3.61	29	3.31	22	2.82	48	2.48	68	2.41	47	1.32	44	2.16	50	2.22	179	2.37	362	2.80
24	104	6.82	63	5.82	67	5.58	30	4.93	22	5.59	48	5.46	68	5.25	44	4.83	44	5.13	50	5.32	183	5.60	360	5.67
25	103	4.39	63	3.70	68	3.95	29	3.52	21	3.57	48	2.83	68	3.00	44	1.17	44	2.88	49	2.43	181	2.87	359	3.43
26	103	3.02	63	3.17	65	3.17	29	2.76	20	3.30	47	3.09	68	3.20	44	1.83	44	3.21	49	1.63	163	2.83	306	2.82
27	103	3.60	63	3.18	65	3.18	29	2.38	20	3.10	47	1.76	68	3.12	44	2.38	44	3.06	50	3.64	165	3.02	309	3.03
28	104	3.76	63	3.72	68	2.72	29	3.10	19	3.68	48	3.00	68	3.91	44	3.89	44	3.39	50	4.22	169	3.34	308	3.65
29	102	3.49	64	3.64	65	3.08	28	3.43	19	2.58	48	3.12	67	3.60	44	3.23	44	3.33	50	3.84	169	3.21	303	3.51
30	101	3.56	63	3.34	66	3.34	28	2.89	19	2.53	48	3.10	67	3.54	44	3.36	44	3.23	50	3.98	167	3.20	302	3.50
31	102	3.40	62	3.10	66	2.64	28	2.82	19	2.42	48	3.33	68	3.12	43	3.12	43	3.13	50	3.04	181	2.93	302	3.05
32	102	2.97	62	3.21	66	2.56	30	3.10	19	1.68	48	2.94	68	3.66	47	3.40	43	3.12	50	3.06	181	3.03	303	3.06
33	102	2.66	63	2.95	65	2.24	30	2.93	19	2.31	48	2.81	69	2.78	47	2.02	43	2.70	50	3.10	181	2.57	303	2.72
34	102	2.89	63	3.44	65	2.60	30	3.10	19	2.10	48	2.54	69	2.38	47	3.04	43	2.21	50	3.10	181	2.70	303	2.73
35	102	3.54	63	3.54	66	2.50	30	2.87	20	2.75	48	3.77	68	3.67	43	3.13	43	3.95	50	3.96	181	3.29	303	3.44
36	102	3.15	63	3.54	66	3.06	30	3.13	20	2.10	47	2.77	68	3.01	46	2.50	43	2.28	49	3.04	179	2.69	355	3.09
37	104	3.62	64	3.49	66	3.59	29	2.82	21	2.94	46	3.10	69	2.90	44	2.85	44	3.18	50	2.78	168	2.86	311	2.87
38	104	2.98	64	3.00	67	3.27	29	2.95	21	3.06	46	3.10	69	2.46	44	2.34	44	2.69	50	2.90	169	2.94	310	2.84
39	104	1.64	64	1.61	67	2.09	29	2.07	21	1.48	47	1.59	68	1.66	44	1.32	44	1.52	50	2.02	162	1.62	304	1.77
40	104	3.22	64	3.26	68	3.20	29	3.17	21	3.38	46	2.84	68	2.28	44	3.08	44	3.02	50	3.06	168	3.14	316	2.94
41	104	2.61	64	2.62	68	2.44	29	2.44	21	2.14	47	2.54	68	1.84	46	2.52	44	2.58	50	2.90	146	2.47	303	2.45
42	104	2.78	64	2.60	68	2.50	29	2.34	21	2.50	47	2.45	68	2.56	46	1.68	44	2.64	50	2.64	166	2.57	310	2.47
43	104	3.10	64	3.12	68	3.45	29	3.45	21	2.62	47	2.89	69	2.88	43	3.50	43	3.02	50	3.34	187	3.27	329	3.14
44	104	2.80	64	2.81	67	3.37	29	3.37	21	2.38	46	2.67	66	1.51	46	2.67	42	2.62	49	2.10	144	2.33	296	2.15
45	104	1.99	64	2.01	66	2.38	29	2.38	21	2.38	46	2.67	66	1.51	46	2.67	42	2.62	49	2.10	144	2.33	296	2.15

¹See Chapter 2 for basis of adjusted means.

²Belgium not included since the F tests were based on adjusted means which accounted for sex; and was inadvertently omitted in Belgium.

³All tables maintain the same format even when variables are omitted (e.g. Costa Rica) in order to facilitate the cross-cultural comparisons.

TABLE A.2 Level of Significant Differences of Adjusted Means¹--'F Tests' (for Total Sample, Sex,

and All Possible Pairs of Nations)--on 45 Variables of SER Personnel in an Eleven Nation Cross-

Cultural Study of Attitudes Toward Education and Toward Physically Disabled Persons

Variable	Comparison																																												
	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	1-32	1-33	1-34	1-35	1-36	1-37	1-38	1-39	1-40	1-41	1-42	1-43	1-44	1-45	
1. National Comparisons	...																																												
2. Variable Name	...																																												
3. NP Cont.	...																																												
4. NP Int. Co.	...																																												
5. NP Trend. In.	...																																												
6. NP Prog. In.	...																																												
7. Support	...																																												
8. Value	...																																												
9. Leader	...																																												
10. Em. Att.	...																																												
11. Em. Att.	...																																												
12. Em. Att.	...																																												
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44. Em. Att.	...																																												
45. Em. Att.	...																																												
46. No. of Diff.	...																																												
47. S. Difference	...																																												
48. Comparison	...																																												

¹For footnotes 1-3 see Table A.1.

TABLE A.3 Sample Size, Means, and Adjusted Means on 45 Variables for Teacher Sample for Ten

Nations

Variable	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female		
	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	
1 HP Cont.	100	55.72	115	28.33	110	51.94	201	51.77	23	49.40	48.54	48.55	49	48.26	49.25	29	50.20	47	47.49	40	51.42	316	48.92	455	47.74
2 HP Int.	100	52.59	115	28.33	110	51.94	201	51.77	23	49.40	48.54	48.55	49	48.26	49.25	29	50.20	47	47.49	40	51.42	316	48.92	455	47.74
3 ED Trad. Co.	100	52.59	115	28.33	110	51.94	201	51.77	23	49.40	48.54	48.55	49	48.26	49.25	29	50.20	47	47.49	40	51.42	316	48.92	455	47.74
4 ED Trad. In.	100	32.34	115	33.92	110	36.71	201	35.52	23	32.74	32.42	32.77	53	32.39	32.56	31	32.74	47	32.96	41	32.10	309	32.06	508	32.37
5 ED Prog. Co.	100	31.15	115	32.96	110	36.71	201	35.52	23	32.08	32.42	32.77	53	32.39	32.56	31	32.74	47	32.96	41	32.10	309	32.06	508	32.37
6 ED Prog. In.	100	31.17	115	33.13	110	37.47	201	36.96	23	29.96	31.47	31.46	53	31.17	31.92	31	31.59	47	31.96	41	31.63	309	31.71	508	31.69
7 Support.	99	15.14	110	14.14	117	10.22	247	13.02	24	16.12	15.09	15.06	65	14.55	14.62	29	13.72	46	17.09	41	13.10	340	13.53	495	14.30
8 Conform.	99	15.11	110	19.47	117	22.47	247	20.53	24	11.21	11.30	11.31	65	15.97	16.00	29	13.72	46	12.74	41	18.63	341	17.67	494	18.74
9 Recog.	99	10.49	110	9.66	117	7.45	247	8.41	24	10.12	6.40	6.40	65	5.87	5.80	29	7.24	46	6.33	41	7.32	341	6.49	495	6.48
10 Intept.	99	16.03	110	15.22	117	14.66	247	15.12	24	20.71	20.98	20.99	65	19.79	20.60	29	19.19	46	20.76	41	18.27	341	17.45	495	16.71
11 Deney.	99	10.56	110	10.68	117	20.08	247	18.11	24	13.54	14.84	14.87	65	11.01	10.88	29	9.19	46	20.46	41	10.12	341	18.64	495	19.95
12 Leader	99	10.27	110	11.02	117	14.18	247	12.75	24	13.54	13.08	13.11	65	11.01	10.88	29	9.19	46	10.38	41	10.12	341	13.56	495	11.10
13 Ed. Amt.	100	6.07	100	6.07	124	5.80	280	6.32	23	6.56	5.35	5.34	66	5.88	5.89	30	6.00	45	6.07	41	7.49	328	5.96	440	6.26
14 Ed. Imp.	100	3.31	100	3.31	124	3.70	280	3.87	23	3.87	3.59	3.59	66	3.86	3.74	30	3.53	45	3.62	41	7.49	328	3.45	440	3.65
15 Ed. Alt.	96	3.31	100	3.31	124	3.70	280	3.87	23	3.87	3.59	3.59	66	3.86	3.74	30	3.53	45	3.62	41	7.49	328	3.45	440	3.65
16 HP Amt.	92	2.96	94	2.96	124	3.21	280	3.71	22	3.41	3.02	3.02	65	3.52	3.34	31	3.19	42	3.26	41	1.82	319	3.45	438	3.05
17 HP Avoid	92	1.00	94	1.00	124	3.21	280	3.71	22	3.41	3.02	3.02	65	3.52	3.34	31	3.19	42	3.26	41	1.82	319	3.45	438	3.05
18 HP Enj.	92	3.48	94	3.48	124	3.08	280	3.57	22	2.76	3.07	3.07	47	2.77	2.77	21	2.76	30	3.43	41	2.46	238	2.94	270	2.85
19 HP Alt.	74	1.44	74	1.44	124	3.08	280	3.57	22	2.76	3.07	3.07	47	2.77	2.77	21	2.76	30	3.43	41	2.46	238	2.94	270	2.85
20 WK Amt.	101	2.32	101	2.32	108	3.61	243	3.71	24	4.75	1.11	1.11	21	3.76	3.76	11	3.00	5	3.40	41	2.14	299	3.00	371	2.97
21 EDP Amt.	101	2.32	101	2.32	108	3.61	243	3.71	24	4.75	1.11	1.11	21	3.76	3.76	11	3.00	5	3.40	41	2.14	299	3.00	371	2.97
22 Age	100	37.64	100	32.35	120	31.32	270	35.15	24	36.50	36.48	36.48	67	30.28	30.28	31	35.13	47	34.47	41	41.41	306	34.63	497	34.32
23 Rel. Imp.	101	3.29	101	3.29	120	3.69	280	3.46	23	3.52	2.56	2.56	67	1.97	1.98	31	1.29	45	2.11	41	2.12	306	2.79	497	3.03
24 Rel. Adv.	101	4.14	101	4.14	120	4.56	280	4.33	24	6.12	5.71	5.71	68	5.36	5.37	31	5.06	47	5.28	41	6.00	369	5.86	519	5.83
25 Other Orin.	100	3.07	100	3.07	120	3.25	276	3.80	24	3.12	2.58	2.58	54	2.20	2.22	31	1.32	45	2.84	41	2.54	363	3.21	511	3.00
26 Future Plan	100	3.58	100	3.58	120	3.25	276	3.80	24	3.12	2.58	2.58	54	2.20	2.22	31	1.32	45	2.84	41	2.54	363	3.21	511	3.00
27 El. School	101	4.00	101	4.00	120	3.47	288	3.87	23	4.00	2.64	2.64	66	3.83	3.83	31	3.88	47	3.74	41	4.34	337	3.29	439	3.43
28 Sec. School	101	3.71	101	3.71	116	3.24	286	3.96	24	3.17	2.76	2.76	66	3.83	3.83	31	3.88	47	3.74	41	4.34	337	3.29	439	3.43
29 Unversity	99	3.65	101	3.65	117	3.20	286	3.96	24	3.08	2.76	2.76	66	3.83	3.83	31	3.88	47	3.74	41	4.34	337	3.29	439	3.43
30 Business	101	2.90	101	2.90	118	3.08	285	3.27	23	2.00	3.09	3.09	66	2.74	2.74	31	2.86	46	3.17	41	3.90	335	3.18	432	3.36
31 Labor	101	2.60	101	2.60	118	3.08	285	3.27	23	2.00	3.09	3.09	66	2.74	2.74	31	2.86	46	3.17	41	3.90	335	3.18	432	3.36
32 Local Govn.	101	3.15	101	3.15	119	2.89	285	3.27	23	2.35	2.88	2.88	66	2.70	2.70	31	2.86	46	3.17	41	3.90	335	3.18	432	3.36
33 National Gov.	101	3.48	101	3.48	119	2.48	284	2.98	23	2.83	2.26	2.26	67	1.75	1.75	31	2.01	46	2.61	41	2.85	336	2.57	434	2.82
34 Health Services	101	3.48	101	3.48	121	2.48	284	2.98	23	2.83	2.26	2.26	67	1.75	1.75	31	2.01	46	2.61	41	2.85	336	2.57	434	2.82
35 Churches	101	3.16	101	3.16	122	3.38	284	3.29	24	2.08	2.46	2.46	66	2.47	2.47	31	2.47	47	2.55	41	4.02	330	2.90	434	2.82
36 Fluoridation	101	3.58	101	3.58	122	3.38	284	3.29	24	2.08	2.46	2.46	66	2.47	2.47	31	2.47	47	2.55	41	4.02	330	2.90	434	2.82
37 Child Rearing	101	2.98	101	2.98	123	3.64	286	3.18	23	3.61	3.67	3.67	66	3.28	3.28	31	3.42	47	3.47	41	2.71	332	3.29	431	3.34
38 Birth Control	100	1.60	100	1.60	123	2.09	286	2.25	24	3.00	3.07	3.07	66	1.37	1.37	30	2.00	47	3.04	41	2.88	332	3.05	431	3.09
39 Automation	101	3.39	101	3.39	120	3.36	285	3.06	24	2.25	2.64	2.64	66	2.28	2.28	31	2.48	47	2.51	41	3.32	332	3.06	431	3.09
40 Political Lead.	100	2.40	100	2.40	123	2.30	285	2.59	24	2.33	2.46	2.46	66	2.70	2.70	31	1.71	47	2.68	41	2.63	330	2.54	427	2.50
41 Self Change	100	2.40	100	2.40	123	2.30	285	2.59	24	2.33	2.46	2.46	66	2.70	2.70	31	1.71	47	2.68	41	2.63	330	2.54	427	2.50
42 Local Aid	100	2.90	100	2.90	122	3.56	286	3.18	24	2.71	2.70	2.70	66	2.46	2.46	31	2.47	47	2.51	41	3.32	330	3.11	425	3.27
43 Federal Aid	100	3.02	100	3.02	119	3.49	289	3.64	24	3.67	3.64	3.64	66	3.46	3.46	31	3.64	46	3.24	41	3.15	332	3.24	425	3.26
44 Ed. Plan.	99	2.04	99	2.04	121	1.78	280	2.68	22	2.68	2.64	2.64	50	2.02	2.02	29	2.52	47	2.40	41	2.15	105	2.47	300	2.39
Nation	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female		

For footnotes 1-3 see Table A.1.

TABLE A.5 Sample Size, Means, and Adjusted Means on 45 Variables for Manager Sample for Ten

Nations

Variable	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female	
	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean
1 HP Cont.	87	35.70	48	39.48			63	47.82	18	44.67	62	48.33	47	49.62	43	50.79	30	49.00	84	50.69				
2 HP Int.	87	28.55	48	29.75			63	30.01	18	27.39	62	28.08	47	30.59	43	31.65	30	31.80	84	27.94				
3 ED Trad. Co.	87	28.80	47	29.87			63	31.68	18	29.39	64	30.97	47	33.57	43	34.46	30	34.87	84	28.52				
4 ED Prog. Co.	87	35.43	47	33.15			63	29.54	18	30.44	64	30.94	47	29.57	43	32.32	30	33.03	84	28.70				
5 ED Prog. In.	87	32.24	47	33.74			63	31.98	18	32.05	64	31.53	47	33.51	43	34.72	30	35.73	84	32.37				
6 Support	87	13.68	49	12.02			63	12.05	17	12.65	63	12.52	48	12.18	42	12.69	27	12.33	84	12.84				
7 Conform.	87	15.08	49	19.45			63	16.48	17	10.70	63	14.07	48	16.54	42	21.09	27	18.76	84	18.43				
8 Recog.	87	10.83	49	9.04			63	16.48	17	8.00	63	6.07	48	5.48	42	7.97	27	8.70	84	16.64				
9 Inlet.	87	16.73	49	15.49			63	17.18	17	19.76	63	22.30	48	20.59	42	18.49	27	19.18	84	17.79				
10 Inev.	87	17.67	49	19.49			63	17.18	17	17.47	63	15.08	48	21.43	42	18.84	27	18.33	84	13.12				
11 Leader	87	16.38	49	14.10			63	17.52	17	21.35	63	18.49	48	13.43	42	10.43	27	13.33	84	13.12				
12 Ed. Amt.	31	3.93							6	5.67		3.33	14	5.28	14	3.86	16	4.62	24	3.04				
13 Ed. Enj.	29	3.32	49	3.24			39	3.37	5	2.80		3.33	12	2.58	12	3.08	15	2.93	25	2.32				
14 Ed. Alt.	27	3.20	78	3.32			34	4.23	5	4.59		3.20	12	4.67	12	3.67	11	4.36	24	2.96				
15 HP Amt.	29	3.60	40	3.60			40	3.54	11	3.82		3.20	45	3.75	34	2.97	20	3.45	72	2.19				
16 HP Avoid	60	3.06	10	3.22			41	3.54	11	2.21		3.40	42	3.13	32	2.86	19	3.42	56	1.52				
17 HP ENJ.	62	3.18	37	3.54			9	3.55	11	2.82		2.27	18	3.19	8	3.37	3	4.00	30	1.55				
18 MR Amt.	85	2.02					57	1.42	16	2.09		2.03	43	2.41	42	1.55	30	2.20	84	1.42				
19 FDP Amt.	85	2.02					57	1.37	17	1.18		2.03	43	2.40	42	1.55	30	1.77	84	1.42				
20 AKS Imp.	87	37.37	48	36.19			59	31.08	18	43.78		42.87	47	37.04	42	32.02	30	45.57	84	34.71				
21 Rel. Imp.	87	2.91	47	2.17			63	3.08	18	2.48		2.06	47	2.79	42	1.26	30	2.77	84	1.95				
22 Ed. Amt.	87	5.78	49	5.39			63	3.64	18	4.50		5.16	47	6.08	43	4.63	30	2.70	84	2.30				
23 Rel. Adv.	87	3.57	48	3.64			63	3.05	18	3.11		2.32	49	3.44	43	1.91	30	3.72	84	1.76				
24 Other Or'n.	87	2.93					63	3.11	18	3.55		1.86	49	3.16	43	2.42	30	3.17	84	3.52				
25 Future Plan.	87	3.52					63	3.11	18	3.55		1.86	49	3.16	43	2.42	30	3.17	84	3.52				
26 Fl. School	87	3.49					62	3.22	18	3.61		2.89	49	3.47	43	2.95	30	3.17	84	4.02				
27 Sec. University	87	3.26					62	3.26	18	3.61		2.89	49	3.47	43	2.95	30	3.17	84	4.02				
28 Business	87	3.71					61	3.48	18	3.25		3.07	48	3.37	43	3.02	30	3.47	84	3.92				
29 Labor	87	3.47	40	3.16			62	3.04	18	2.76		3.16	49	3.04	43	2.67	30	3.53	84	3.14				
30 Local Govern.	87	2.52	40	2.35			63	2.94	18	2.81		2.74	49	2.43	43	2.73	30	2.93	84	3.08				
31 National Gov.	87	2.56	40	2.35			63	3.04	18	2.67		2.73	49	2.43	43	2.86	30	2.97	84	3.00				
32 Health Services	87	3.15	49	3.59			63	3.09	17	3.22		2.55	49	3.41	43	2.86	30	4.27	84	3.81				
33 Church	87	3.15	49	3.63			63	3.09	18	3.22		2.55	49	3.41	43	2.86	30	4.27	84	3.81				
34 Fluoridation	87	3.27					63	3.29	18	3.57		3.60	48	3.02	43	3.23	30	3.67	80	2.91				
35 Child Hearing	87	2.86					63	3.29	18	3.11		3.03	49	2.53	43	3.07	30	2.91	80	2.91				
36 Birth Control	87	1.64					63	1.98	18	1.22		1.55	49	1.95	43	1.35	30	1.77	80	1.86				
37 Automation	87	3.21					63	3.27	18	3.55		3.30	49	2.26	43	2.67	30	2.53	84	3.44				
38 Political Lead.	87	2.73					63	2.89	18	2.78		2.50	49	1.73	43	2.67	30	2.50	84	2.55				
39 Self Change	87	2.49					63	2.89	18	2.78		2.50	49	1.73	43	2.67	30	2.50	84	2.55				
40 Local Aid	87	2.88							18	2.55		2.98	49	2.06	43	3.23	30	2.77	84	3.02				
41 Federal Aid	87	2.97							18	2.62		2.51	47	1.59	43	2.49	30	2.90	84	2.90				
42 Ed. Plan.	87	1.92							18	2.61		2.51	47	1.59	43	2.49	30	2.87	84	2.36				
Nation	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female	

For footnotes 1-3 see Table A.1.

TABLE A. 7 Sample Size, Means and Adjusted Means on 45 Variables for Labor Sample for Eight

Nations

Variable	1--U.S.		2--Costa Rica		3--Colombia		4--Peru		5--England		6--Holland		7--France		8--Yugoslavia		9--Denmark		10--Japan		11--Male		12--Female	
	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean	N	Adj. Mean
1 HP Cont.	100	45.29	46	40.15	41	54.22	47	54.68	34	51.73	52	47.58	34	51.73	47	54.68	27	47.41	36	50.55	---	---	---	---
2 HP Int.	100	59.49	46	49.65	41	64.41	47	67.74	34	62.02	52	58.42	34	62.02	47	67.74	27	56.89	36	51.50	---	---	---	---
3 ED Trad. Co.	100	27.54	45	31.69	41	30.41	48	31.85	34	35.04	52	28.63	34	35.04	48	31.85	28	31.25	36	27.83	---	---	---	---
4 ED Trad. In.	100	31.41	45	33.53	42	30.47	48	32.40	34	35.03	52	32.38	34	35.03	48	32.40	28	32.89	36	28.25	---	---	---	---
5 Attitude	100	30.04	45	31.15	42	30.48	48	32.40	34	32.03	51	31.02	34	32.03	48	32.40	28	32.89	36	31.59	---	---	---	---
6 ED Prog. In.	100	32.81	45	34.13	42	32.41	48	34.54	34	32.88	51	32.72	34	32.88	48	34.54	28	33.28	36	31.59	---	---	---	---
7 Support	99	15.63	41	13.39	41	11.31	47	13.79	---	---	48	13.73	36	15.55	47	13.79	26	14.54	36	13.00	---	---	---	---
8 Support.	98	13.64	41	18.54	41	22.17	47	20.34	---	---	49	16.00	36	15.53	47	20.34	25	18.08	36	8.80	---	---	---	---
9 Recog.	98	11.15	41	10.29	41	9.54	47	10.59	---	---	49	6.57	36	8.08	47	10.59	25	6.08	36	17.53	---	---	---	---
10 Indep.	99	18.58	41	18.66	41	13.83	47	16.89	---	---	49	21.18	36	18.83	47	16.89	26	20.73	36	17.54	---	---	---	---
11 Reviv.	99	17.39	41	18.10	41	18.80	47	17.99	---	---	49	18.53	36	19.05	47	17.99	26	20.50	36	17.54	---	---	---	---
12 Leader	98	14.03	41	10.63	41	14.12	47	13.69	---	---	49	13.69	36	11.19	47	13.69	25	10.36	36	12.86	---	---	---	---
13 Ed. Amt.	50	3.12	---	---	21	3.52	---	---	---	---	4	3.25	1	1.00	3	5.67	6	1.83	7	5.43	---	---	---	---
14 Ed. Enj.	40	3.40	---	---	21	3.00	---	---	---	---	4	3.25	1	1.00	3	3.33	4	2.25	7	3.92	---	---	---	---
15 Ed. Alt.	37	3.27	---	---	11	5.00	---	---	---	---	1	5.00	2	3.00	3	4.33	4	5.00	7	1.92	---	---	---	---
16 HP Amt.	77	3.13	---	---	27	2.11	---	---	---	---	28	3.41	28	2.14	41	2.34	19	3.83	29	2.58	---	---	---	---
17 HP Avoid	76	2.88	---	---	24	2.96	---	---	---	---	25	3.94	26	2.73	37	2.78	18	1.89	21	2.58	---	---	---	---
18 HP Enj.	76	3.00	---	---	24	2.96	---	---	---	---	26	3.92	26	3.50	37	2.93	19	3.00	27	2.59	---	---	---	---
19 MR Amt.	24	2.75	---	---	6	2.67	---	---	---	---	8	3.15	4	3.50	13	2.93	10	1.69	10	1.69	---	---	---	---
20 EDP Amt.	100	1.84	---	---	43	1.39	---	---	---	---	47	1.54	26	1.61	48	1.85	28	1.82	38	1.28	---	---	---	---
21 EDP Amt.	100	1.59	---	---	30	1.20	---	---	---	---	48	1.54	48	1.61	48	1.85	28	1.82	38	1.28	---	---	---	---
22 Agg. Imp.	100	27.01	46	32.15	42	17.90	---	---	---	---	52	32.23	37	39.40	48	28.90	28	37.14	36	28.33	---	---	---	---
23 Ed. Amt.	100	3.00	---	---	42	3.62	---	---	---	---	52	1.86	35	2.46	48	1.75	28	1.71	35	1.57	---	---	---	---
24 Ed. Adh.	100	5.03	46	2.76	46	2.71	---	---	---	---	52	2.19	37	4.73	48	3.78	28	2.86	36	4.89	---	---	---	---
25 Other Orin.	100	3.71	45	3.89	46	3.91	---	---	---	---	52	3.15	37	3.03	47	2.85	28	2.52	36	1.80	---	---	---	---
26 Future Plan	100	3.03	---	---	43	4.89	---	---	---	---	49	1.82	37	3.00	47	2.05	28	2.61	36	3.50	---	---	---	---
27 Fl. School	100	3.13	---	---	46	3.13	---	---	---	---	52	3.31	36	3.44	48	3.14	28	3.32	36	3.61	---	---	---	---
28 Sec. School	100	3.07	---	---	45	3.13	---	---	---	---	50	3.14	36	3.22	48	2.89	28	3.26	36	3.68	---	---	---	---
29 Univ. Sec.	100	3.47	---	---	45	3.13	---	---	---	---	50	3.14	36	3.22	48	2.89	28	3.26	36	3.68	---	---	---	---
30 Business	100	2.91	---	---	42	3.12	---	---	---	---	49	3.26	34	3.22	48	3.37	27	3.52	36	3.08	---	---	---	---
31 Labor	100	2.53	46	2.87	42	2.82	---	---	---	---	49	3.26	34	3.22	48	3.37	27	3.52	36	3.08	---	---	---	---
32 Local Govn.	100	2.87	46	3.17	44	2.68	---	---	---	---	52	2.73	36	3.22	48	3.92	28	3.43	36	2.72	---	---	---	---
33 National Gov.	100	2.87	46	3.17	44	2.68	---	---	---	---	52	2.73	36	3.22	48	3.92	28	3.43	36	2.68	---	---	---	---
34 Health Services	100	3.50	46	3.46	46	2.54	---	---	---	---	52	2.73	36	3.22	48	3.21	27	2.15	36	2.72	---	---	---	---
35 Churches	100	3.12	46	3.23	46	3.55	---	---	---	---	50	2.94	36	3.32	48	2.77	28	2.35	36	2.63	---	---	---	---
36 Fluoridation	100	3.45	---	---	46	2.98	---	---	---	---	53	3.29	37	3.22	48	2.64	28	3.25	36	2.94	---	---	---	---
37 Child Rearing	99	2.82	---	---	46	2.74	---	---	---	---	53	3.29	37	3.22	48	2.64	28	3.25	36	2.94	---	---	---	---
38 Birth Control	100	1.75	---	---	46	2.15	---	---	---	---	50	1.50	36	2.61	48	2.35	28	2.68	36	2.17	---	---	---	---
39 Autocratic	100	3.18	---	---	45	2.87	---	---	---	---	51	3.04	37	1.76	48	1.76	28	3.28	36	3.30	---	---	---	---
40 Political Lead.	100	2.33	---	---	45	2.53	---	---	---	---	51	2.70	37	2.03	48	2.56	28	2.86	36	2.67	---	---	---	---
41 Self Change	100	2.43	---	---	43	2.39	---	---	---	---	52	2.40	37	2.49	48	1.85	28	2.86	36	2.67	---	---	---	---
42 Local Aid	100	2.85	---	---	45	3.18	---	---	---	---	52	2.77	35	2.86	48	2.44	28	2.89	36	2.89	---	---	---	---
43 Federal Aid	100	2.67	---	---	43	3.12	---	---	---	---	52	2.77	35	2.86	48	2.44	28	2.89	36	2.89	---	---	---	---
44 Ed. Plan.	97	2.08	---	---	45	2.44	---	---	---	---	52	2.25	35	1.88	48	1.96	27	2.78	35	2.86	---	---	---	---
45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
61	---	---	---	---																				

TABLE A. 27 Correlation Matrix for the Peru Education Sample

Type	ATTITUDE					VALUE					CONTACT					DEMO					INSTITUTIONS					CHANGE					EDUCATION					Var. No.	Variable																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			36	37	38	39	40	41	42	43	44	45																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
---	08	15	21	27	34	41	48	55	62	69	76	83	90	97	104	111	118	125	132	139	146	153	160	167	174	181	188	195	202	209	216	223	230	237	244	251	258	265	272	279	286	293	300	307	314	321	328	335	342	349	356	363	370	377	384	391	398	405	412	419	426	433	440	447	454	461	468	475	482	489	496	503	510	517	524	531	538	545	552	559	566	573	580	587	594	601	608	615	622	629	636	643	650	657	664	671	678	685	692	699	706	713	720	727	734	741	748	755	762	769	776	783	790	797	804	811	818	825	832	839	846	853	860	867	874	881	888	895	902	909	916	923	930	937	944	951	958	965	972	979	986	993	1000	1007	1014	1021	1028	1035	1042	1049	1056	1063	1070	1077	1084	1091	1098	1105	1112	1119	1126	1133	1140	1147	1154	1161	1168	1175	1182	1189	1196	1203	1210	1217	1224	1231	1238	1245	1252	1259	1266	1273	1280	1287	1294	1301	1308	1315	1322	1329	1336	1343	1350	1357	1364	1371	1378	1385	1392	1399	1406	1413	1420	1427	1434	1441	1448	1455	1462	1469	1476	1483	1490	1497	1504	1511	1518	1525	1532	1539	1546	1553	1560	1567	1574	1581	1588	1595	1602	1609	1616	1623	1630	1637	1644	1651	1658	1665	1672	1679	1686	1693	1700	1707	1714	1721	1728	1735	1742	1749	1756	1763	1770	1777	1784	1791	1798	1805	1812	1819	1826	1833	1840	1847	1854	1861	1868	1875	1882	1889	1896	1903	1910	1917	1924	1931	1938	1945	1952	1959	1966	1973	1980	1987	1994	2001	2008	2015	2022	2029	2036	2043	2050	2057	2064	2071	2078	2085	2092	2099	2106	2113	2120	2127	2134	2141	2148	2155	2162	2169	2176	2183	2190	2197	2204	2211	2218	2225	2232	2239	2246	2253	2260	2267	2274	2281	2288	2295	2302	2309	2316	2323	2330	2337	2344	2351	2358	2365	2372	2379	2386	2393	2400	2407	2414	2421	2428	2435	2442	2449	2456	2463	2470	2477	2484	2491	2498	2505	2512	2519	2526	2533	2540	2547	2554	2561	2568	2575	2582	2589	2596	2603	2610	2617	2624	2631	2638	2645	2652	2659	2666	2673	2680	2687	2694	2701	2708	2715	2722	2729	2736	2743	2750	2757	2764	2771	2778	2785	2792	2799	2806	2813	2820	2827	2834	2841	2848	2855	2862	2869	2876	2883	2890	2897	2904	2911	2918	2925	2932	2939	2946	2953	2960	2967	2974	2981	2988	2995	3002	3009	3016	3023	3030	3037	3044	3051	3058	3065	3072	3079	3086	3093	3100	3107	3114	3121	3128	3135	3142	3149	3156	3163	3170	3177	3184	3191	3198	3205	3212	3219	3226	3233	3240	3247	3254	3261	3268	3275	3282	3289	3296	3303	3310	3317	3324	3331	3338	3345	3352	3359	3366	3373	3380	3387	3394	3401	3408	3415	3422	3429	3436	3443	3450	3457	3464	3471	3478	3485	3492	3499	3506	3513	3520	3527	3534	3541	3548	3555	3562	3569	3576	3583	3590	3597	3604	3611	3618	3625	3632	3639	3646	3653	3660	3667	3674	3681	3688	3695	3702	3709	3716	3723	3730	3737	3744	3751	3758	3765	3772	3779	3786	3793	3800	3807	3814	3821	3828	3835	3842	3849	3856	3863	3870	3877	3884	3891	3898	3905	3912	3919	3926	3933	3940	3947	3954	3961	3968	3975	3982	3989	3996	4003	4010	4017	4024	4031	4038	4045	4052	4059	4066	4073	4080	4087	4094	4101	4108	4115	4122	4129	4136	4143	4150	4157	4164	4171	4178	4185	4192	4199	4206	4213	4220	4227	4234	4241	4248	4255	4262	4269	4276	4283	4290	4297	4304	4311	4318	4325	4332	4339	4346	4353	4360	4367	4374	4381	4388	4395	4402	4409	4416	4423	4430	4437	4444	4451	4458	4465	4472	4479	4486	4493	4500	4507	4514	4521	4528	4535	4542	4549	4556	4563	4570	4577	4584	4591	4598	4605	4612	4619	4626	4633	4640	4647	4654	4661	4668	4675	4682	4689	4696	4703	4710	4717	4724	4731	4738	4745	4752	4759	4766	4773	4780	4787	4794	4801	4808	4815	4822	4829	4836	4843	4850	4857	4864	4871	4878	4885	4892	4899	4906	4913	4920	4927	4934	4941	4948	4955	4962	4969	4976	4983	4990	4997	5004	5011	5018	5025	5032	5039	5046	5053	5060	5067	5074	5081	5088	5095	5102	5109	5116	5123	5130	5137	5144	5151	5158	5165	5172	5179	5186	5193	5200	5207	5214	5221	5228	5235	5242	5249	5256	5263	5270	5277	5284	5291	5298	5305	5312	5319	5326	5333	5340	5347	5354	5361	5368	5375	5382	5389	5396	5403	5410	5417	5424	5431	5438	5445	5452	5459	5466	5473	5480	5487	5494	5501	5508	5515	5522	5529	5536	5543	5550	5557	5564	5571	5578	5585	5592	5599	5606	5613	5620	5627	5634	5641	5648	5655	5662	5669	5676	5683	5690	5697	5704	5711	5718	5725	5732	5739	5746	5753	5760	5767	5774	5781	5788	5795	5802	5809	5816	5823	5830	5837	5844	5851	5858	5865	5872	5879	5886	5893	5900	5907	5914	5921	5928	5935	5942	5949	5956	5963	5970	5977	5984	5991	5998	6005	6012	6019	6026	6033	6040	6047	6054	6061	6068	6075	6082	6089	6096	6103	6110	6117	6124	6131	6138	6145	6152	6159	6166	6173	6180	6187	6194	6201	6208	6215	6222	6229	6236	6243	6250	6257	6264	6271	6278	6285	6292	6299	6306	6313	6320	6327	6334	6341	6348	6355	6362	6369	6376	6383	6390	6397	6404	6411	6418	6425	6432	6439	6446	6453	6460	6467	6474	6481	6488	6495	6502	6509	6516	6523	6530	6537	6544	6551	6558	6565	6572	6579	6586	6593	6600	6607	6614	6621	6628	6635	6642	6649	6656	6663	6670	6677	6684	6691	6698	6705	6712	6719	6726	6733	6740	6747	6754	6761	6768	6775	6782	6789	6796	6803	6810	6817	6824	6831	6838	6845	6852	6859	6866	6873	6880	6887	6894	6901	6908	6915	6922	6929	6936	6943	6950	6957	6964	6971	6978	6985	6992	6999	7006	7013	7020	7027	7034	7041	7048	7055	7062	7069	7076	7083	7090	7097	7104	7111	7118	7125	7132	7139	7146	7153	7160	7167	7174	7181	7188	7195	7202	7209	7216	7223	7230	7237	7244	7251	7258	7265	7272	7279	7286	7293	7300	7307	7314	7321	7328	7335	7342	7349	7356	7363	7370	7377	7384	7391	7398	7405	7412	7419	7426	7433	7440	7447	7454	7461	7468	7475	7482	7489	7496	7503	7510	7517	7524	7531	7538	7545	7552	7559	7566	7573	7580	7587	7594	7601	7608	7615	7622	7629	7636	7643	7650	7657	7664	7671	7678	7685	7692	7699	7706	7713	7720	7727	7734	7741	7748	7755	7762	7769	7776	7783	7790	7797	7804	7811	7818	7825	7832	7839	7846	7853	7860	7867	7874	7881	7888	7895	7902	7909	7916	7923	7930	7937	7944	7951	7958	7965	7972	7979	7986	7993	8000	8007	8014	8021	8028	8035	8042	8049	8056	8063	8070	8077	8084	8091	8098	8105	8112	8119	8126	8133	8140	8147	8154	8161	8168	8175	8182	8189	8196	8203	8210	8217	8224	8231	8238	8245	8252	8259	8266	8273	8280	8287	8294	8301	8308	8315	8322	8329	8336	8343	8350	8357	8364	8371	8378	8385	8392	8399	8406	8413	8420	8427	8434	8441	8448	8455	8462	8469	8476	8483	8490	8497	8504	8511	8518	8525	8532	8539	8546	8553	8560	8567	8574	8581	8588	8595	8602	8609	8616	8623	8630	8637	8644	8651	8658	8665	8672	8679	8686	8693	8700	8707	8714	8721	8728	8735	8742	8749	8756	8763	8770	8777	8784	8791	8798	8805	8812	8819	8826	8833	8840	8847	8854	8861	8868	8875	8882	8889	8896	8903	8910	8917	8924	8931	8938	8945	8952	8959	8966	8973	8980	8987	8994	9001	9008	9015	9022	9029	9036	9043	9050	9057	9064	9071	9078	9085	9092	9099	9106	9113	9120	9127	9134	9141	9148	9155	9162	9169	9176	9183	9190	9197	9204	9211	9218	9225	9232	9239	9246	9253	9260	9267	9274	9281	9288	9295	9302	9309	9316	9323	9330

TABLE A. 40 Correlation Matrix for the Holland Male Sample

Type	VALUE										CONTACT										DEMO										INSTITUTIONS										CHANGE										Educ.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45						
Attitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45						
Variable	HP Cont.	HP Int.	HP Prod. Co.	HP Prod. In.	HP Prod. Co.	HP Prod. In.	Support	Confirma.	Neseg.	Indep.	Benef.	Leader.	Ed. Act.	Ed. Enj.	Ed. Alt.	Ed. Alt.	HP Avoid.	HP Enj.	HP Alt.	MR Alt.	FDP Art.	Age	Rel. Imp.	Rel. Act.	Rel. Adh.	Other Ch'n.	Future Plan	Ed. School	Sec. School	University	Business	Local Govern.	National Gov.	Health Services	Churches	Fluoridation	Child Hearing	Birth Control	Automobile	Political Lead.	Self Chng.	Fed. Aid	F.S. Plan.								
Var. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45						

See Table A. 9 for footnotes.



TABLE A. 64 Correlation Matrix for the Japan Male Sample

ATTITUDE		VALUE										CONTACT										DEMO										INSTITUTIONS										CHANGE										EDUCATION					Variable	Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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22	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	147

TABLE A. 68 Correlation Matrix for the Belgium Manager Sample

Type	ATTITUDE				VALUE																CONTACT																DENO																INST:UTIONS																CHANGE																EDUCATION					Variable																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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APPENDIX B.1

Attitudes Toward Education Scale

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

EDUCATION SCALE

Instructions: Given below are 20 statements of opinion about education. We all think differently about schools and education. Here you may express how you think by choosing one of the four possible answers following each statement. These answers indicate how much you agree or disagree with the statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

1. The goals of education should be dictated by children's interests and needs as well as by the larger demands of society.

1. Strongly disagree
2. Disagree

3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly

3. Fairly strongly
4. Very strongly

2. No subject is more important than the personalities of the pupils.

1. Strongly disagree
2. Disagree

3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly

3. Fairly strongly
4. Very strongly

3. Schools of today are neglecting reading, writing, and arithmetic: the three R's.

1. Strongly disagree
2. Disagree

3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly

3. Fairly strongly
4. Very strongly

4. The pupil-teacher relationship is the relationship between a child who needs direction, guidance, and control and a teacher who is an expert supplying direction, guidance, and control.

1. Strongly disagree
2. Disagree

3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly

3. Fairly strongly
4. Very strongly

No. _____

5. Teachers, like university professors, should have academic freedom--freedom to teach what they think is right and best.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

6. The backbone of the school curriculum is subject matter; activities are useful mainly to facilitate the learning of subject matter.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

7. Teachers should encourage pupils to study and criticize our own and other economic systems and practices.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

8. The traditional moral standards of our culture should not just be accepted; they should be examined and tested in solving the present problems of students.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

9. Learning is experimental; the child should be taught to test alternatives before accepting any of them.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

10. The curriculum consists of subject matter to be learned and skills to be acquired.

1. Strongly disagree	3. Agree
2. Disagree	4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all	3. Fairly strongly
2. Not very strongly	4. Very strongly

No. _____

E. D.

11. The true view of education is so arranging learning that the child gradually builds up a store-house of knowledge that he can use in the future.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

12. One of the big difficulties with modern schools is that discipline is often sacrificed to the interests of children.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

13. The curriculum should be made up of an orderly sequence of subjects that teach to all students the best of our cultural heritage.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

14. Discipline should be governed by long-range interests and well-established standards.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

15. Education and educational institutions must be sources of social ideas; education must be a social program undergoing continual reconstruction.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

16. Right from the very first grade, teachers must teach the child at his own level and not at the level of the grade he is in.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

17. **Children should be allowed more freedom than they usually get in the execution of learning activities.**
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
18. **Children need and should have more supervision and discipline than they usually get.**
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
19. **Learning is essentially a process of increasing one's store of information about the various fields of knowledge.**
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
20. **In a democracy, teachers should help students understand not only the meaning of democracy but also the meaning of the ideologies of other political systems.**
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

APPENDIX B. 2

Survey of Interpersonal Values

SURVEY OF INTERPERSONAL VALUES

LEONARD V. GORDON*

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

DIRECTIONS

In this booklet are statements representing things that people consider to be important to their way of life. These statements are grouped into sets of three. This is what you are asked to do:

Examine each set. Within each set, find the one statement of the three which represents what you consider to be most important to you. Put an "X" in the space beside that statement in the column head M (for most).

Next, examine the remaining two statements in the set. Decide which one of these statements represents what you consider to be least important to you. Put an "X" in the space beside that statement in the column headed L (for least).

For every set you will mark one statement as representing what is most important to you, one statement as representing what is least important to you, and you will leave one statement unmarked.

EXAMPLE: MORE

LESS

- | | | | |
|----|----------|----------|----------------------------------|
| a. | _____ | <u>X</u> | To have a good hot meal at noon. |
| b. | _____ | _____ | To get a good night's sleep. |
| c. | <u>X</u> | _____ | To get plenty of fresh air. |

Suppose that you have examined the three statements in the example, and although all three of the statements may represent things that are important to you, you feel that "To get plenty of fresh air" is the most important to you. You would put an "X" in the space in the column headed M (for most) beside the statement. Notice that this has been done in the example.

You would then examine the remaining two statements to decide which of these represents something that is least important to you. Suppose that "To have a hot meal at noon" is the least important to you. You would put an "X" in the space in the column headed L (for least) next to this statement.

You would leave the remaining statement unmarked.

In some cases it may be difficult to decide which statement to mark. Make the best decision that you can. This is not a test; there are no right or wrong answers. Be sure to mark only one M (most) choice and only one L (least) choice in a set. Do not skip any sets. Answer every set. Turn this booklet over and begin.

MOST¹

LEAST¹

- | | | | |
|----|-------|-------|---------------------------------------|
| 1. | _____ | _____ | To be free to do as I choose. |
| 2. | _____ | _____ | To have others agree with me. |
| 3. | _____ | _____ | To make friends with the unfortunate. |

*Reproduced with permission of Leonard V. Gordon.

¹In the research instrument this started on page two. The above was doubled spaced as a covering page.

MOST

LEAST

- | | | | |
|-----|-------|-------|---|
| 4. | _____ | _____ | To be in a position of not having to follow orders. |
| 5. | _____ | _____ | To follow rules and regulations closely. |
| 6. | _____ | _____ | To have people notice what I do. |
| 7. | _____ | _____ | To hold an important job or office. |
| 8. | _____ | _____ | To treat everyone with extreme kindness. |
| 9. | _____ | _____ | To do what is accepted and proper. |
| 10. | _____ | _____ | To have people think of me as being important. |
| 11. | _____ | _____ | To have complete personal freedom. |
| 12. | _____ | _____ | To know that people are on my side. |
| 13. | _____ | _____ | To follow social standards of conduct. |
| 14. | _____ | _____ | To have people interested in my well being. |
| 15. | _____ | _____ | To take the lead in making group decisions. |
| 16. | _____ | _____ | To be able to do pretty much as I please. |
| 17. | _____ | _____ | To be in charge of some important project. |
| 18. | _____ | _____ | To work for the good of other people. |
| 19. | _____ | _____ | To associate with people who are well known. |
| 20. | _____ | _____ | To attend strictly to the business at hand. |
| 21. | _____ | _____ | To have a great deal of influence. |
| 22. | _____ | _____ | To be known by name to a great many people. |
| 23. | _____ | _____ | To do things for other people. |
| 24. | _____ | _____ | To work on my own without direction. |
| 25. | _____ | _____ | To follow a strict code of conduct. |
| 26. | _____ | _____ | To be in a position of authority. |
| 27. | _____ | _____ | To have people around who will encourage me. |
| 28. | _____ | _____ | To be friends with the friendless. |
| 29. | _____ | _____ | To have people do good turns for me. |
| 30. | _____ | _____ | To be known by people who are important. |
| 31. | _____ | _____ | To be the one who is in charge. |
| 32. | _____ | _____ | To conform strictly to the rules. |
| 33. | _____ | _____ | To have others show that they like me. |
| 34. | _____ | _____ | To be able to live my life exactly as I wish. |
| 35. | _____ | _____ | To do my duty. |
| 36. | _____ | _____ | To have others treat me with understanding. |
| 37. | _____ | _____ | To be the leader of the group I am in. |
| 38. | _____ | _____ | To have people admire what I do. |
| 39. | _____ | _____ | To be independent in my work. |
| 40. | _____ | _____ | To have people act considerately toward me. |
| 41. | _____ | _____ | To have other people work under my direction. |
| 42. | _____ | _____ | To spend my time doing things for others. |
| 43. | _____ | _____ | To be able to lead my own life. |
| 44. | _____ | _____ | To contribute a great deal to charity. |
| 45. | _____ | _____ | To have people make favorable remarks about me. |

MOST	LEAST
46. _____	_____ To be a person of influence.
47. _____	_____ To be treated with kindness.
48. _____	_____ To always maintain the highest moral standards.
49. _____	_____ To be praised by other people.
50. _____	_____ To be relatively unbound by social conventions.
51. _____	_____ To work for the good of society.
52. _____	_____ To have the affection of other people.
53. _____	_____ To do things in the approved manner.
54. _____	_____ To go around doing favors for other people.
55. _____	_____ To be allowed to do whatever I want to do.
56. _____	_____ To be regarded as the leader.
57. _____	_____ To do what is socially correct.
58. _____	_____ To have others approve of what I do.
59. _____	_____ To make decisions for the group.
60. _____	_____ To share my belongings with other people.
61. _____	_____ To be free to come and go as I want to.
62. _____	_____ To help the poor and needy.
63. _____	_____ To show respect to my superiors.
64. _____	_____ To be given compliments by other people.
65. _____	_____ To be in a very responsible position.
66. _____	_____ To do what is considered conventional.
67. _____	_____ To be in charge of a group of people.
68. _____	_____ To make all of my own decisions.
69. _____	_____ To receive encouragement from others.
70. _____	_____ To be looked up to by other people.
71. _____	_____ To be quick in accepting others as friends.
72. _____	_____ To direct others in their work.
73. _____	_____ To be generous toward other people.
74. _____	_____ To be my own boss.
75. _____	_____ To have understanding friends.
76. _____	_____ To be selected for a leadership position.
77. _____	_____ To be treated as a person of some importance.
78. _____	_____ To have things pretty much my own way.
79. _____	_____ To have other people interested in me.
80. _____	_____ To have proper and correct social manners.
81. _____	_____ To be sympathetic with those who are in trouble.
82. _____	_____ To be very popular with other people.
83. _____	_____ To be free from having to obey rules.
84. _____	_____ To be in a position to tell others what to do.
85. _____	_____ To always do what is morally right.
86. _____	_____ To go out of my way to help others.
87. _____	_____ To have people willing to offer me a helping hand.
88. _____	_____ To have people admire me.
89. _____	_____ To always do the approved things.
90. _____	_____ To be able to leave things lying around if I wish.

APPENDIX B.3

Personal Questionnaire: General

No. _____

Male _____

Female _____

Location _____

Group _____

Date _____

PERSONAL QUESTIONNAIRE

This questionnaire has two parts to it. The first part has to do with your contacts with schools and education, and what you know about education. You may have had considerable contact with schools and education, or you may know a great deal about education. On the other hand, you may have had little or no contact with schools or education and may have never thought much about it at all.

For the purposes of this investigation, the answers of all persons are important. If you know very little or nothing about schools or education, your answers are important. If you know a great deal about them, your answers are important.

The second part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous, you may answer all of the questions freely without any concern about being identified. It is important to the study to obtain your answer to every question.

PERSONAL QUESTIONNAIRE¹

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

SECTION I: Experience with Schools and Education

- Below are listed several different kinds of schools or educational divisions. In respect to these various kinds or levels of education, which one have you had the most professional or work experience with, or do you have the most knowledge about? This does not refer to your own education but to your professional work or related experiences with education. Please answer² by circling the number of the group you select. Circle only one.

- Elementary School (Grade School) 1
- Secondary School (High School) 2
- College or University 3
- Other Types (Please Specify) _____ 4
- I have had no such experience 5

- Which other groups, in addition to the one indicated above, have you also had some professional or work experience with? Please circle the number of each additional group with which you have had some experience.

- Elementary School (Grade School) 1
- Secondary School (High School) 2
- College or University 3
- Other Types (Please specify) _____ 4
- I have had no such experience 5

¹In the research instrument this started on page two. The above was double spaced as a covering page.

²All answers were double spaced in the research instrument to facilitate "circling" the numbers.



No. _____

3. The following questions have to do with additional kinds of contacts you have had with schools or education. Please circle the number of each experience that applies to you. Be sure and circle the number of every experience that applies to you.

- I know little or nothing about education 1
- I have read or heard a little about schools and education 2
- I have studied about schools and education through reading, movies, lectures, or observations 3
- A neighbor of mine works in education 4
- A friend of mine works in education 5
- Some relative works in education 6
- My father, mother, brother, sister, wife (husband), or child works in education (in any position, professional or non-professional) 7
- I have worked in education, as a teacher, administrator, counselor, volunteer, etc. 8
- Other (Please specify) _____ 9

If on the preceding three questions you indicated that you have had no personal experience with any kind of education, please skip Questions #4 through #7. If you indicated that you have had experience with one or more of the levels of education listed, please answer Questions #4 through #7.

4. About how much time have you worked in schools or educational settings? Please circle the number of the one best answer.

- Less than three months 1
- Between three and six months 2
- Between six months and one year 3
- Between one and three years 4
- Between three and five years 5
- Between five and ten years 6
- Over ten years 7
- Over fifteen years 8

5. If you have ever worked in education, about what percentage of your income was derived from such work?

- Less than 10% 1
- Between 10 and 25% 2
- Between 25 and 50% 3
- Between 50 and 75% 4
- Between 75 and 100% 5

6. If you have ever worked in education, how have you generally felt about it?

- I definitely have disliked it 1
- I have not liked it very much 2
- I have liked it somewhat 3
- I have definitely enjoyed it 4

No. _____

7. If you have ever worked in education for personal gain (for example, for money or some other gain), what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (or is) acceptable to you as a job?

- I do not know what other jobs were available or acceptable 1
- No other job was available 2
- Other jobs available were not at all acceptable to me 3
- Other jobs available were not quite acceptable to me 4
- Other jobs available were fully acceptable to me 5

SECTION 2: Personal Information

8. How old are you? (Write age in box)

9. Where were you mainly reared or "brought up" in your youth (that is, up to the age of 15 or 16)?

- Country 1
- Country Town 2
- City. 3
- City Suburb. 4

10. Where have you (or the main bread winner in your family) been employed during the past three years?

- Country 1
- Country Town 2
- City. 3
- City Suburb. 4

11. Where have you mainly lived during the past three years?

- Country 1
- Country Town 2
- City. 3
- City Suburb. 4

12. What is your marital status?

- Married 1
- Single 2
- Divorced 3
- Widowed 4
- Separated. 5

13. How many children do you have? (Please write number in box)

No. _____

14. Please answer either A or B, whichever applies best to your present situation. Please read both choices, then answer only one.

A. If you are self-supporting, about what is your total yearly income before taxes (or, if you are married, the total yearly income in the family). Include extra income from any regular sources such as dividends, insurance, etc. Please write the total in the box.

B. If you are not self-supporting (or, if you are married, if your family is not self-supporting), what is the approximate total yearly income before taxes of the persons who mainly provide your support (that is, parents, relatives or others). Make the best estimate you can.

15. According to your answer to Question 14, about how does your income compare with that of most people in the total community where you live?

- Much lower. 1
- Lower 2
- About the same 3
- Higher 4
- Much higher 5

16. How many brothers have you? (Please write number in box)

17. How many sisters have you? (Please write number in box)

18. About how does (or did) your father's income compare with that of most people in the community in which he lives (or lived)?

- Much lower. 1
- Lower. 2
- About the same. 3
- Higher 4
- Much higher 5

19. What is your religion?

- I prefer not to answer 0
- Catholic 1
- Protestant 2
- Jewish 3
- None 4
- Other (Please specify) _____ 5

20. About how important is your religion to you in your daily life?

- I prefer not to answer 0
- I have no religion 1
- Not very important 2
- Fairly important. 3
- Very important 4

No. _____

PQ

21. During an "average" work day, you probably have occasion to talk and make contact with other adult persons where you are employed. Estimate about what percentage of these contacts and conversations are with people you feel personally close to, whom you consider to be close friends or that are relatives of yours.

- None 1
- I do not usually talk or make contact with other adult persons where I am employed. 2
- Less than 10% 3
- Between 10 and 30% 4
- Between 30 and 50% 5
- Between 50 and 70% 6
- Between 70 and 90% 7
- More than 90% 8

22. How important is it to you to work with people you feel personally close to?

- Not at all important 1
- Not very important. 2
- Fairly important 3
- Very important 4

23. Now please consider all of the personal contacts you have with people when you are not at work. Would you estimate about what percentage of your contacts apart from working hours are spent with people whom you know because of your job; that is, those who work at the same job, trade, or profession, or in the same place that you do, or that you otherwise contact in the pursuit of your job.

- None 1
- Less than 10% 2
- Between 10 and 30% 3
- Between 30 and 50% 4
- Between 50 and 70% 5
- Between 70 and 90% 6
- More than 90% 7

24. Which social class do you believe you are in?

- Lower 1
- Lower Middle 2
- Middle 3
- Upper Middle 4
- Upper. 5
- Upper Upper 6

25. Which social class do you believe your father is (or was) in?

- Lower 1
- Lower Middle 2
- Middle 3
- Upper Middle 4
- Upper 5
- Upper Upper 6

No. _____

26. About how much education do you have? (Circle only one)

- 3 years of school or less 1
- 6 years of school or less 2
- 9 years of school or less 3
- 12 years of school or less 4
- Some college or university 5
- A college or university degree 6
- Some graduate work beyond the first degree 7
- One or more advanced degrees 8
- Other (Please note number of years of study or diploma obtained) _____ 9

27. About how does your education compare with that of most people?

- Much less than most 1
- Less than most 2
- About average 3
- More than most 4
- Much more than most 5

28. About how does (or did) your father's education compare with that of most people in his time?

- Much less than most 1
- Less than most 2
- About average 3
- More than most 4
- Much more than most 5

29. What type of living arrangement do you have?

- Rent a house 1
- Rent an apartment 2
- Rent a room (meals in a restaurant, etc.) 3
- Purchase room and board (rooming house, etc.) 4
- Own an apartment 5
- Own a house 6
- Other (Please specify) _____ 7

30. Please answer either A or B. Please read both before answering.

- A. If you are renting the house in which you live, about how much money per month do you pay for rent? (Write amount in Box)
- B. If you own the house in which you live (house, apartment, or other), about how much money per month do you believe you could rent the house for? (Write amount in box)

31. In every community each group (for example, schools, businessmen, labor, the local government) has a different job to do for the community. In your community, would you say that the schools are doing an excellent, good, fair, or poor job? How about businessmen? Labor? The local government? The doctors and hospitals? The church? (Please circle the appropriate number to indicate how you feel each job is being done.) Please answer for each group.

A. Elementary Schools

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

B. Secondary Schools

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

C. Universities

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

D. Businessmen

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

E. Labor

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

F. Local Government

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

No. _____

PQ

31. Continued from preceding page. The instructions on the previous page apply to the following sections, G through I.

G. National Government

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

H. Health Services (Doctors and Hospitals)

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

I. Churches

- Do not know 1
- Poor 2
- Fair 3
- Good 4
- Excellent 5

32. How long have you lived in your present community?

- Less than 1 year 1
- From 1 to 2 years 2
- From 3 to 6 years 3
- From 7 to 10 years. 4
- Over 10 years 5

33. Have you changed your residency (from one community to another) during the past two years? Please circle the correct number.

- Yes 1
- No 2

34. Have you changed your employment during the past two years? Please circle the correct number.

- Yes 1
- No 2

35. About how many times have you changed residency (communities) during the past 10 years? Please circle the correct number.

- None 1
- 1 Time 2
- 2 - 3 Times 3
- 4 - 6 Times 4
- 7 - 10 Times 5
- Over 10 Times 6

No. _____

36. About how many times have you changed jobs during the past 10 years? Please circle the correct number.

- None 1
- 1 Time 2
- 2 - 3 Times 3
- 4 - 6 Times 4
- 7 - 10 Times 5
- Over 10 Times 6

37. Please state your occupation. Briefly state the title or name of your job and the nature of your work.

38. In respect to your religion, about to what extent do you observe the rules and regulations of your religion? Please circle the correct number.

- I prefer not to answer 0
- I have no religion 1
- Seldom 2
- Sometimes 3
- Usually 4
- Almost always 5

39. Health experts say adding certain chemicals to drinking water results in less decay in people's teeth. If you could add these chemicals to your water with little cost to you, would you be willing to have the chemicals added? Please circle the correct number.

- Probably not 1
- No 2
- Maybe 3
- Yes 4

40. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried out whenever possible."

- Strongly disagree 1
- Slightly disagree 2
- Slightly agree 3
- Strongly agree 4

No. _____

41. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control? Do you think they are doing something good or bad? If you had to decide, would you say they are doing wrong, or rather, that they are doing right?

- It is always right. 1
- It is probably all right. 2
- It is usually wrong. 3
- It is always wrong. 4

42. People have different ideas about what should be done concerning automation and other new ways of doing things. How do you feel about the following statement?

"Automation and similar new procedures should be encouraged (in government, business, and industry) since eventually it creates new jobs and raises the standard of living."

- Disagree Strongly 1
- Disagree Slightly. 2
- Agree Slightly 3
- Agree Strongly. 4

43. Running a village, city, town, or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed regularly, even if they are doing a good job."

- Strongly disagree 1
- Slightly disagree. 2
- Slightly agree 3
- Strongly agree 4

44. Some people believe that more local government should be used for education even if doing so means raising the amount you pay in taxes. What are your feelings on this?

- Strongly disagree 1
- Slightly disagree. 2
- Slightly agree 3
- Strongly agree 4

45. Some people believe that more federal government income should be used for education even if doing so means raising the amount you pay in taxes. What are your feelings on this?

- Strongly disagree 1
- Slightly disagree. 2
- Slightly agree 3
- Strongly agree 4

46. People have different ideas about planning for education in their nation. Which one of the following do you believe is the best way? Answer only one.

- Planning for education should be left entirely to the parents. 1
- Educational planning should be primarily directed by the individual city or other local governmental unit 2
- Educational planning should be primarily directed by the national government. 3



No. _____

47. Some people are more set in their ways than others. How would you rate yourself? Please circle the number of your choice.

- I find it very difficult to change 1
- I find it slightly difficult to change 2
- I find it somewhat easy to change my ways 3
- I find it very easy to change my ways 4

48. I find it easier to follow rules than to do things on my own.

- Agree strongly 1
- Agree slightly 2
- Disagree slightly 3
- Disagree strongly 4

49. I like the kind of work that lets me do things about the same way from one week to the next. Circle the number of your choice.

- Agree strongly 1
- Agree slightly 2
- Disagree slightly 3
- Disagree strongly 4

50. A good son will try to find work that keeps him near his parents even though it means giving up a good job in another part of the country.

- Agree strongly 1
- Agree slightly 2
- Disagree slightly 3
- Disagree strongly 4

51. We should be as helpful to people we do not know as we are to our friends.

- Disagree strongly 1
- Disagree slightly 2
- Agree slightly 3
- Agree strongly 4

52. Planning only makes a person unhappy because your plans hardly ever work out anyway.

- Agree strongly 1
- Agree slightly 2
- Disagree slightly 3
- Disagree strongly 4

53. Which of the following requisites do you consider most important to make your life more happy and satisfactory in the future? Circle the single, most important choice.

- Nothing 1
- More money 2
- More friends 3
- Better job 4
- Good health 5
- Other (please specify) _____ 6



No. _____

PQ

54. What do you think you can do to make this possible? Please answer one of the two alternatives below.

Nothing _____

Please specify _____

APPENDIX B. 4

Attitudes Toward Disabled Persons Scale

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

HANDICAPPED PERSONS SCALE

Instructions: Given below are 20 statements of opinion about physically handicapped persons. We all think differently about persons with physical handicaps. Here you may express how you think by choosing one of the four possible answers following each statement. These answers indicate how much you agree or disagree with the statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

-
1. Parents of handicapped children should be less strict than other parents.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
2. Physically handicapped persons are just as intelligent as non-handicapped ones.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
3. Handicapped people are usually easier to get along with than other people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
4. Most physically handicapped people feel sorry for themselves.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
5. Physically handicapped people are the same as anyone else.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

6. There shouldn't be special schools for physically handicapped children.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
7. It would be best for physically handicapped persons to live and work in special communities.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
8. It is up to the government to take care of physically handicapped persons.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
9. Most physically handicapped people worry a great deal.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
10. Physically handicapped people should not be expected to meet the same standards as non-handicapped people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
11. Physically handicapped people are as happy as non-handicapped ones.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
12. Severely physically handicapped people are no harder to get along with than those with minor handicaps.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

ATDP

13. It is almost impossible for a handicapped person to lead a normal life.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
14. You should not expect too much from physically handicapped people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
15. Physically handicapped people tend to keep to themselves much of the time.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
16. Physically handicapped people are more easily upset than non-handicapped people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
17. Physically handicapped persons cannot have a normal social life.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
18. Most physically handicapped people feel that they are not as good as other people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
19. You have to be careful of what you say when you are with physically handicapped people.
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |
- About how strongly do you feel about your answer?
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

20. **Physically handicapped people are often grouchy.**
- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

- About how strongly do you feel about your answer?**
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

APPENDIX B. 5

Personal Questionnaire: HP

No. _____

Male _____

Female _____

Location _____

Group _____

Date _____

PERSONAL QUESTIONNAIRE: HP

This questionnaire deals with your contacts with physically handicapped persons, and what you know about them. Perhaps you have had much contact with physically handicapped persons, or you may have studied about them. On the other hand, you may have had little or no contact with physically handicapped persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about physically handicapped persons your answers are important.

PERSONAL QUESTIONNAIRE: HP¹

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

1. Some physically handicapping conditions are listed below. In respect to these various handicaps, which have you had the most actual experience with. Please answer by circling the number of the group you select. Circle only one.

1. blind
2. partially blind
3. deaf (and deaf-mute)
4. partially deaf
5. crippled or amputated limbs

6. disfigured (such as severe burns or scars on face)
7. spastic (or cerebral palsy)
8. speech disorders
9. none

2. Which other groups have you also had some experience with? Please circle the number of each additional group with which you have had some experience.

1. blind
2. partially blind
3. deaf (and deaf-mute)
4. partially deaf
5. crippled or amputated limbs

6. disfigured (such as severe burns or scars on face)
7. spastic (or cerebral palsy)
8. speech disorders
9. none

If on the preceding question you indicated that you have had no personal experience with physically handicapped persons (by circling response No. 9, please skip questions #3 through # 9. If you indicated that you have had experience with one or more of the above handicapping conditions, please answer questions #3 through #9.

¹In the research instrument this started on page two. The above was double spaced as a covering page.

No. _____

3. The following questions have to do with the kinds of experience you have had with physically handicapped persons. Please circle the number of each experience that applies to you. If more than one experience applies, please circle a number for each experience that applies.

- I have read or heard a little about physically handicapped persons 1
- I have studied about physically handicapped persons through reading, movies, lectures, or observations 2
- A friend is physically handicapped 3
- Some relative is physically handicapped 4
- I have personally worked with physically handicapped persons, as a teacher, counselor, volunteer, child care, etc. 5
- My father, mother, brother, sister, wife (husband) or child is physically handicapped 6
- I, myself, have a physical handicap. (Briefly, please indicate the kind of handicap _____)

4. Considering all of the times you have talked, worked, or in some other way had personal contact with physically handicapped persons, about how many times has it been altogether? Please circle the number of the single best answer.

- Less than 10 occasions 1
- Between 10 and 50 occasions. 2
- Between 50 and 100 occasions 3
- Between 100 and 500 occasions 4
- More than 500 occasions 5

5. When you have been in contact with physically handicapped people, how easy for you, in general, would it have been to have avoided being with these handicapped persons?

- I could generally have avoided these personal contacts only at great cost or difficulty 1
- I could generally have avoided these personal contacts only with considerable difficulty 2
- I could generally have avoided these personal contacts, but with some inconvenience 3
- I could generally have avoided these personal contacts without any difficulty or inconvenience 4

6. During your contact with physically handicapped persons, did you gain materially in any way through these contacts, such as being paid, or gaining academic credit, or some such gain?

- No, I have never received money, credit, or any other material gain. 1
- Yes, I have been paid for working with handicapped persons. 2
- Yes, I have received academic credit or other material gain 3
- Yes, I have been paid and received academic credit 4

7. If you have never been paid for working with handicapped persons go on to the next question. If you have been paid, about what percentage of your income was derived from contact with physically handicapped persons during the actual period when working with them?

- Less than 10% 1
- Between 10 and 25% 2
- Between 25 and 50% 3
- Between 50 and 75% 4
- More than 75% 5



8. How have you generally felt about your experiences with handicapped persons?

- I have definitely disliked it 1
- I have not liked it very much 2
- I have liked it somewhat 3
- I have definitely enjoyed it. 4

9. If you have ever worked with the physically handicapped for personal gain (for example, for money or some other gain), what opportunities did you have (or do you have) to work at something else instead; that is, something else that was (or is) acceptable to you as a job?

- I do not know what other jobs were available or acceptable 1
- No other job was available. 2
- Other jobs available were not at all acceptable to me 3
- Other jobs available were not quite acceptable to me. 4
- Other jobs available were fully acceptable to me. 5

The following questions should be answered by all persons, regardless of whether or not they have had any personal contact with persons who are physically handicapped.

10. Have you had experience with mentally retarded persons? Considering all of the times you have talked, worked, or in some other way had personal contact with mentally retarded persons, about how many times has it been altogether? Please circle the number of the single best answer.

- Less than 10 occasions 1
- Between 10 and 50 occasions 2
- Between 50 and 100 occasions 3
- Between 100 and 500 occasions 4
- More than 500 occasions 5

11. Have you had any experience with emotionally ill persons? Considering all of the times you have talked, worked, or in some other way had personal contact with emotionally ill persons, about how many times has it been altogether? Please circle the number of the single best answer.

- Less than 10 occasions 1
- Between 10 and 50 occasions 2
- Between 50 and 100 occasions 3
- Between 100 and 500 occasions 4
- More than 500 occasions 5

APPENDIX B. 6

Definitions of Physical Handicaps

DEFINITIONS

What is meant by "physical handicap."

The words "physically handicapped" will be used often in the questions and statements that follow. Where these are used, they will include persons with any of the following handicaps:

1. blind person--those who have no useful sight at all.
2. partly blind persons--those who have some sight but have trouble reading and getting along even with glasses.
3. deaf persons--those who have no useful hearing at all.
4. partly deaf persons--those who have some hearing but have trouble understanding other persons even with a hearing aid.
5. cripples or amputees--those who have arms or legs that have been paralyzed or removed even though they may be of some use with artificial hands or legs.
6. spastic (or cerebral palsy)--those who have poor control and coordination of their legs, arm, and head movements. Movements are often jerky and speech hard to understand.
7. disfigured--those who have been obviously damaged about the face, such as with burns or scars, so that the face has been changed.

APPENDIX C

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APPENDIX C.1

Variables of the Study

A. Attitudes Toward Education

1. Traditional attitudes
Items 3, 4, 6, 10, 11, 12, 13, 14, 18, 19
Content (Raw score total)
2. Traditional attitudes
Items 3, 4, 6, 10, 11, 12, 13, 14, 18, 19
Intensity (Raw score total)
3. Progressive attitudes
Items 1, 2, 5, 7, 8, 9, 15, 16, 17, 20
Content (Raw score total)
4. Progressive attitudes
Items 1, 2, 5, 7, 8, 9, 15, 16, 17, 20
Intensity (Raw score total)

B. Contact with Education

1. Levels of education experienced
Item 1 (primary contact)
Item 2 (additional contacts--no. , kinds of)
2. Varieties of contact with education
Item 3
3. Amount of contact (work) with education
Item 4
4. Personal gain from work in education
Item 5 (percentage of income)
5. Enjoyment of contact
Item 6
6. Alternative opportunities available
Item 7 (refers to other possible employment)

C. Aid to Education--Financial

- Item 44 (local)
- Item 45 (federal or national)

D. Education Planning

- Item 46 (who should plan)

E. Interpersonal Values--Gordon Scale

1. S scores: Support
2. C scores: Conformity
3. R scores: Recognition (comparative score)
4. I scores: Independence
5. B scores: Benevolence (asset score)
6. L scores: Leadership (comparative score)

F. Demographic, S. E. S. , Other Control Data (All from Questionnaire)

1. Education (self-amount), Item 26
2. Occupation (specific), Item 37
3. Income and rental
Item 14 (Income--yearly, self-family)
Item 30 (Rental--monthly)
4. Age: Item 8
5. Sex: Front sheet of questionnaire
6. Marital status: Item 12
7. Number of children: Item 13
8. Size of family
Item 16 (brothers--do not use)
Item 17 (sisters--do not use)
9. Housing (type of), Item 29
10. Mobility: Residency, Items 32, 33, and 35
Occupational, Items 34 and 36
11. Rural-Urban Status: Items 9, 10, and 11
12. Employment Status--current: Item 37

G. Satisfaction with Institutions

1. Satisfaction with elementary schools
Item 31-A
2. Satisfaction with secondary schools
Item 31-B
3. Satisfaction with universities
Item 31-C
4. Satisfaction with businessmen
Item 31-D
5. Satisfaction with labor
Item 31-E
6. Satisfaction with local government
Item 31-F
7. Satisfaction with national government
Item 31-G
8. Satisfaction with health services
Item 31-H
9. Satisfaction with churches
Item 31-I

H. Self-Statements

1. Comparative income status--self: Item 15
2. Comparative income--father: Item 18
3. Comparative social class--self: Item 24
4. Comparative social class--father: Item 25
5. Comparative education--self: Item 27
6. Comparative education--father: Item 28

I. Religiosity Questionnaire

1. Religious affiliation: Item 19
2. Perceived importance: Item 20
3. Perceived adherence: Item 38

J. Personalism Questionnaire

1. **Orientation toward job personalism**
Statement of extent of personalism on job: Item 21
Perceived importance of personal relations: Item 22
2. **Diffusion of personal relationships**
Percentage of job-social overlap: Item 23
3. **Familialism: Item 50, (Son's work)**
4. **Other orientation: Altruism: Item 51**

K. Attitudes Toward Change

1. **Health practices (fluoridation): Item 29**
2. **Child-rearing practices: Item 40**
3. **Birth control practices: Item 41**
4. **Automation: Item 42**
5. **Political leadership change: Item 43**
6. **Self Conception**
Item 47 (Perceived self-rigidity)
Item 48 (Adherence to rules)
Item 49 (Job regularity and rigidity)
7. **Future Orientation**
Item 52 (Planning--personal)
Item 53 (Requisites for happiness)
Item 54 (Achievement of happiness)

L. Attitudes Toward Handicapped Persons

1. **Handicapped Persons Scale. Items 1-20**
Content Raw Score total
2. **Handicapped Persons Scale. Items 1-20**
Intensity Raw Score total

M. Contact with Handicapped Persons

1. **Kinds of handicapped persons experienced**
P. Q. -HP, Item 1 (most contact)
P. Q. -HP, Item 2 (additional contacts--no. of)
2. **Varieties of relationship with handicapped**
P. Q. -HP, Item 3
3. **Frequency of contact with physically handicapped**
P. Q. -HP, Item 4
4. **Ease of avoidance of contacts with handicapped**
P. Q. -HP, Item 5
5. **Personal gain through working with handicapped persons**
P. Q. -HP, Item 6 (nature of gain) P. Q. -HP, (percentage of income)
6. **Enjoyment of contact with physically handicapped**
P. Q. -HP, Item 8
7. **Alternative opportunities available**
P. Q. -HP, Item 9 (refers to other possible employment)
8. **Frequency of contact with mentally retarded persons**
P. Q. -HP, Item 10
9. **Frequency of contact with emotionally ill persons**
P. Q. -HP, Item 11

APPENDIX C. 2

Administration Procedures

Procedures For Administration:

Cross-Cultural Attitude Study

John E. Jordan
Michigan State University
December, 1964

The specific instructions will vary in detail from nation to nation. However, the following outline is presented on the basis of my experience thus far with the questionnaire and attitude scales.

1. Arrange for a meeting room and/or place. The respondents should have a table (or similar surface) on which to write and ample room between respondents (in group administration) to minimize influencing each other.
2. After introducing oneself (or being introduced), state briefly the following kind of rationale for the study:

"This is an international study of attitudes toward education; part of it deals with education in general and part of it deals with the education of handicapped persons. Each part of it is clearly stated. Remember, in a study like this, there are no right or wrong answers to the attitude questions. We want you to answer how you feel about certain things. Therefore, we do not want your name on the questionnaire. Please answer quickly, with your first idea, and do not spend a lot of time thinking about each item."

Remember, this is an international study and all the people in the other countries will be answering in the same manner. If there is no answer that exactly fits what you would like to answer, please choose the alternative nearest your desired answer.

Please answer all items.

If you have any questions as you proceed, please raise your hand and we will come to you and discuss it individually so as not to disturb the other people. When we have all completed the questionnaires, I will be glad to discuss the study in more detail if you desire. Thank you very much for taking time to cooperate in the study."

3. Distribute the page of definitions.

"We will now distribute to you a page of definitions of certain handicapping conditions which will be referred to in some of the questionnaires. We will all take a few minutes to read these so we will all have the same idea about the same words. You may refer to these later if you so desire.

Also, we want you to put a number in the upper left hand corner of the page like this (show them what you mean). Since we do not want you to put your name on the questionnaire, you will use this number. In this manner no one will know your answers. We must have your number and group (special education, teacher, business, etc.) on each questionnaire so we can put all the answers of one person together at the end."

Here the respondents "number off" and see that no two persons have the same number. Remember if two people in a group have the same number, the data cannot be analyzed.

4. Distribute the attitude scales and questionnaires in the following order. In group administration be sure to pass out only one instrument at a time.

Order of Administration of Instruments

1. Page of definitions
2. Education Scale
3. Survey of Interpersonal Values
4. Personal Questionnaire
5. Handicapped Persons Scale
6. Personal Questionnaire: HP

5. Distribute the Education Scale. Have the respondents fill out data on the top of scale: (1) Number, (2) Sex, (3) Location, (4) Group, and (5) Date. Either instruct the respondents to read silently the instructions or the administrator may read them to group, this is left to each country to do in the manner they consider most appropriate. Our experience shows that if the instructions are well understood on this first instrument, the other instruments are easily understood.

When the respondents have completed the Education Scale, collect them and distribute the next one as indicated above in Point Number Four. Proceed in a similar manner until all five instruments have been completed.

6. If situations arise where the instruments are left with the respondent (i. e. , either in an office or to take home), try to impress on them the order in which to take them (e. g. , number them 1-2-3-4-5 in the upper right hand corner) and not to look at them ahead of time.

Do not leave instruments with respondents except when absolutely necessary and in such cases mark on them later to indicate they were given in this manner.

7. Respondent identification. See discussion under Points Numbered 3 and 6 above. Remember we need a minimum of 50 persons per each of the four groups: (1) special education, (2) teacher-primary and secondary, (3) workers-blue and white collar, and (4) employers-business, commerce, industry. We would prefer to have more so secure as many as you can conveniently locate up to 100 per group.

Each of these respondents must fill out all five instruments, using the same respondent number and group. If either the respondent number or group is omitted or duplicated, the data cannot be collated for data analysis.

8. When you have secured enough completed sets of instruments for a "usual size" mailing package in your country, please mail it to me rather than waiting to send all of them at one time. In this manner I can have the data scored and tabulated for computer processing in an orderly manner. If I receive all the data at one time, it will be difficult to hire assistants here at the university on any regular basis.

Each time you mail a package of data, you should send me a letter describing it so I can keep records.

APPENDIX C. 3

Procedures for Securing Item Directionality

Procedures for Securing Item "Directionality"

- 1. Handicapped Persons Scale**
- 2. Hearing Handicapped Persons Scale**
- 3. Blind Persons Scale**

**John E. Jordan
John E. Felty**

January, 1966

1. The rationale for reversing content scoring on the HP scale items 2, 5, 6, 11, 12.
 - a. All of the other items of the scale state either a difference between HP's and others, or a negative characteristic--therefore, agreement with these items indicates less acceptance (according to Yuker-Block).
 - b. The 5 items mentioned above are statements of similarity between HP's and others, therefore, agreement indicates more acceptance. In order to make the "direction" of acceptance the same for all items, the scoring was reversed on these 5 so that people who disagreed with statements of similarity would get a higher score.
 - c. After this reversal, high scores on each of the items are supposed to indicate less acceptance.
 - d. In the dichotomization procedure (Felty, by hand) there was a final reversal of scoring on all items in order to make a high (1) score be favorable, and a low (0) unfavorable for each item. It is, of course, not necessary to make this final step, but it is more convenient for thinking, and a more usual procedure, to make more favorable scores higher.

2. For Dickie and Weir, the positively stated items are not all precise statements of similarity, but the items can be divided into those in which agreement with the item indicates unfavorable attitudes, and those in which agreement indicates favorable attitudes. This is by inspection, of course, and it is possible that empirical test could indicate that a given item was placed in the wrong category. Such an item would probably scale negatively with the others, and scoring would have to be reversed for this item in computing total scores for each subject.

This question is independent of the question of whether a high total score indicates favorable or unfavorable attitudes, which is a question of item content. If you want a high total score to indicate favorable attitudes, (see 1, d above), one way would be to follow Felty's procedure on the HP scale (as outlined above and in the code book). However, if the computer dichotomized total scores have been computed for each person for scale items (this is a hand procedure based on new dichotomized totals--either machine or hand-dichotomized--and takes place as the last two operations in the "scale and intensity analysis" subsection of the "flow and control chart.") That is, after scaling, even by computer, someone still has to figure out the new total scores for each respondent for each "scale," enter these into unused columns of the data sheet, and then have them punched into Deck 1 for further analysis. If after dichotomization, total scores ranged from 0 to 20 (possible with 20 dichotomized statements scored 0.1) and high scores indicate unfavorable attitudes, the scoring can be reversed by making up an equivalence table to transpose the scores; e.g.,

Total Scores	
Dichotomized "Unfavorable"	Reversed "Favorable"
20	0
19	1
18	2
17	3
etc.	etc.

Another way of doing this would avoid the necessity of making two sets of reversals; i. e. , instead of reversing the similarity-type items (see above, 1. b), reverse the others. This means many more items have to be reversed initially in the scoring, but that no further reversal is necessary since a high score for each item would then presumably indicate a favorable or accepting response. Although, this would be more time-consuming, it would save time later and is not as complicated. (Note: it will still be necessary to obtain new scale item total scores by a hand procedure after dichotomization and scaling as indicated on p. 229).

For the Blind Persons Scale (Dickie, 1967) a high score (strong agreement) indicates favorable attitude for items 2, 10, 13, 14, 17, 19.

For the Hearing Handicapped Persons Scale (Weir) a high score (Strong agreement) indicated favorable attitude for items 1, 7, 10, 15.

If the scores are reversed for these items, a high total score will indicate unfavorable or unaccepting attitudes, and a further reversal following dichotomization would be advisable (as on page 229). If scores are reversed for all other items, a high total score will indicate favorable or accepting attitudes, and no further reversal will be necessary.

3. For Sinha (1966, Emotionally Disturbed Persons Scale--EDP) the procedures follow exactly those of Felty (1965) for the HP scale. (See pages 232-243 of codebook number 865).
4. Following is a summary of the above procedures to be used by all studies:
 - a. in initial scoring, reverse favorably stated items (usual procedure) i. e. , those items mentioned specifically by number.
 - b. submit for dichotomization and scale analysis by computer
 - c. for scale items obtain new total scores for each respondent.¹
 - d. convert these total scores by inverting the order (e. g. , bottom of page 229).
 - e. enter scale scores (converted) onto data sheets in open columns.
 - f. have scale scores punched into Deck 2 at data processing.
 - g. use new scale score totals in subsequent analyses. (ANOVA, MRA, etc.)
 - h. since the intensity items are all clearly directional, from low to high intensity, there would be no reason for making any reversals.

¹As mentioned before, a possible complication can arise with items which scale negatively with the other items in the Lingoes procedure. This would seem to indicate that the prejudgement about whether the item was "favorable" or "unfavorable" was in error, and would require a reversal of scoring for this item in obtaining a total scale score. That is, all "O's" would be scored as "1's" and vice versa (as Lingoes states it, the item has been "reflected").

APPENDIX C. 4

Code Book: International

CODE BOOK

CROSS-CULTURAL ATTITUDES TOWARD EDUCATION AND PHYSICALLY DISABLED PERSONS: THEIR NATURE AND DETERMINANTS

INTERNATIONAL STUDY*

John E. Jordan
College of Education
Michigan State University
August 25, 1965

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code ± for a one column response or -9 for a two column no response, or -99 for a three column no response will mean there was No Information or Respondent did not answer.
2. In each case in the following pages the column to the left contains the column number of the IBM card; the second column contains the question number from the questionnaire; the third column (item detail) contains an abbreviated form of the item; and the fourth column contains the code within each column of the IBM card with an explanation of the code.
3. Coder instructions always follow a line across the page and are clearly indicated.
4. In some cases when codes are equal to others already used, they are not repeated each time, but reference is made to a previous code or the immediately previous code with "same. "
5. Under Code, the first number is the questionnaire question alternative and the second number is the actual code which is entered on the data sheets (i. e. , 1-4; one 1 is the questionnaire question alternative and 4 is the code).

*This code book (no. 865) is specifically for the United States sample through card 4. Limited modifications and/or additions are made in certain nations and/or states. Special Instructions are appended for each study and must be consulted before scoring that national sample.

CODE BOOK NO. 865

Card 1

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
1, 2, 3,	Face Sheet	Nation and Location	<u>UNITED STATES</u> 001 - Mich. , Mt. Pleasant 002 - Mich. , Cadillac 003 - Mich. , Ann Arbor 004 - Mich. , Port Huron 005 - Mich. , Lansing 006 - Mich. , Walden Woods 007 - Mich. , Flint 008 - Mich. , Misc. , Kal. , Mid. 009 - Kansas, Wichita 010 - Ohio, Tiffin 011 - West Virginia 012 - Kentucky 013 - Georgia <u>LATIN AMERICA</u> 101 - Costa Rica 102 - Colombia 103 - Peru 104 - Argentina 105 - Mexico 106 - Surinam <u>EUROPE</u> 201 - England 202 - Holland 203 - Belgium 204 - France 205 - Yugoslavia 206 - Denmark 207 - Germany <u>ASIA</u> 301 - Israel 302 - Japan 303 - India <u>AFRICA</u> 401 - Kenya 402 - Rhodesia 403 - South Africa
4, 5	Face Sheet	Group Number (administration)	01 - 99 Check Special Instructions
6, 7	Face Sheet	Respondent Number	01 - 99

*This code book (no. 865) is specifically for the United States sample through Card 4. Limited modifications and/or additions are made in certain nations and/or states. Special instructions are appended for each study and must be consulted before scoring that national sample.

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
8	Face Sheet	Sex of Respondent	1 - Masculine 2 - Feminine
9	(Code derived from Columns 22, 23 Card 1)	Occupational Recode (Interest Group)	1 - Code 01 - 09, Rehab., Spec. Ed. 2 - Code 10 - 19, Education 3 - Code 20 - 45, Professional, Business, Medical 4 - Code 50 - 86, White Collar, Blue Collar, Laborer
10	New	Occupational Recode (Spec. Ed., Rehab. SER)*	1 - Teacher, Educable Retarded, (Type A and Type C) 2 - Teacher, Trainable Retarded, (Type B) 3 - Teacher, Hearing 4 - Teacher, Vision 5 - Speech Correction 6 - Visiting Teacher (Also Social Worker) 7 - Diagnostician 8 - Other (Professors, Supts., Administrators, etc.) + - Non-teacher
11, 12	Face Sheet	Deck or Card Number	01
13, 14	Face Sheet	Project Director, location and content area	<u>LATIN AMERICA</u> 01 Felty: Costa Rica (total - Pilot study) 02 Friesen: Peru and Colombia (total) 03 Taylor: Costa Rica (country study) <u>UNITED STATES</u> 31 Sinha: Ohio (parents - M. R., emot. dist. and normal) 32 Dickie: Kansas (total and and blind scale) 33 Weir: Kansas (total and deaf scale) 34 Mader: Michigan (special educ. - intra) 35 Jordan: Michigan - Mt. Pleasant (Special Education)

*If respondent is not an SER "educational person," he receives a +.

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
13, 14 (continued)	Face Sheet		<u>ASIA</u> 51 Cessna: Japan (total plus university students and government employees)
			<u>EUROPE</u> 71 Boric: Yugoslavia (total) 72 Fabia: France (total) 73 Hansen: Denmark (total) 74 Loring: England (total) 75 Robaye: Belgium (total) 76 Schweizer: Netherlands (total) 77 Kreider: Europe (total)
15, 16	Face Sheet	Day of Administration (Use the actual day)	01 - 31
17, 18	Face Sheet	Month of Administration	01 - January 02 - February 03 - March 10 - October 11 - November 12 - December
19, 20	Face Sheet	Year of Administration	64 - 1964 65 - 1965 66 - 1966 . . 70 - 1970
21	Face Sheet	Type of Administration	1 - Group 2 - Self-administered 3 - Interview, individual + - No information
22, 23	37 Questionnaire	Occupation of Respondent* (Specific)	<u>(01 - 09) Rehab. & Spec. Ed.</u> 01 - All administrative persons, public and private schools or agencies 02 - Teachers, elem. and secondary, academic and vocational 03 - School Special Services (Psych. Soc. work, speech, etc.) 04 - University teachers, professors, researchers, specialists, etc. 05 - Medical (Doctors, dentists, etc.)

*See page 252 and footnote page 239.

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
22, 23 (continued)	37 Questionnaire	Occupation of Respondents* (Specific)	<p><u>(01 - 09) Rehab. & Spec. Ed.)</u> 06 - Other professionals (Psych., Soc. worker, Speech, etc., not primarily in public or private schools) 07 - Para-medical (Nurse, O. T., R. T., P. T., etc.) 08 - Unskilled help (Hospital aide, janitor, any non-prof., non-tech. role) 09 - Other</p> <p><u>(10 - 19) Educational personnel other than Rehab. and Spec. Ed.</u> 10 - Elementary teachers, (include elem. v. p.'s, counselors, etc.) 11 - Secondary teachers 12 - Guidance and personnel workers (psych., social work, counselor if not elementary) 13 - Other special services (Speech, spec. teacher, audiometric, etc.) 14 - Administrative (elem., sec., central office adm., including elem. principal, sec. v. p. and princ., etc., in non-teach) 15 - University teachers, professors, researchers, specialists, etc. 16 - 19 Open</p> <p><u>(20 - 29) Medical, other than Rehab. and Spec. Ed.</u> 20 - General practitioners 21 - Surgeons 22 - Psychiatrists or psychoanalysts 23 - Dentists 24 - All other medical specialists 25 - Open 26 - Tech. and Prof.: Nurse, O. T., P. T., R. T., Audio, etc. 27 - Non-tech. and non-prof.: aide, janitor, attendant, etc. 28 - 29 Open</p> <p><u>(30 - 39) Professional and Technical not Spec. Ed. and Rehab. or Medical or Educ.</u> 30 - Engineers (degrees): civil, electrical, mechanical, etc.</p>

*See page 252.

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
22, 23 (continued)	37 Questionnaire	Occupation of Respondents* (Specific)	<p><u>(30 - 39) Professional and Technical not Spec. Ed. and Rehab. or Medical or Educ.</u></p> <p>31 - Lawyers, attorneys, public accountants</p> <p>32 - Ministers, clergymen</p> <p>33 - Musicians</p> <p>34 - Clinical psychologist</p> <p>35 - Researchers, scientists not primarily in education</p> <p>36 - Social workers, etc.</p> <p>37 - 39 Other</p> <p><u>(40 - 45) Business and Industry, Managers, Officials, Props.</u></p> <p>40 - Gov't and other bureaucratic officials: public administrators and officers, union officials, stage inspectors, public utility, telephone officials, etc.</p> <p>41 - Manufacturing, industrial officials, execs., etc.</p> <p>42 - Non-mfg., service, industry: bankers, brokers, insurance, real estate</p> <p>43 - Retail trades: food, clothing, furniture, gasoline, vehicle sales, etc.</p> <p>44 - General: i. e., manager, executive, etc., no other qualifications</p> <p>45 - Open</p> <p><u>(46 - 49) Farm Owners, operators and managers of large farms, e. g., heavy equipment and/or many empl.</u></p> <p>46 - Farm owner</p> <p>47 - Farm operator (renter)</p> <p>48 - Farm manager</p> <p>49 - Open</p> <p><u>(50 - 59) White collar: office, clerical, etc.</u></p> <p>50 - Clerical and similar: tellers, bookkeepers, cashiers, attendants, telephone operators, library ass'ts, mail clerks, and carriers, file clerks, secretaries, shipping clerks, etc.</p>

* See page 252

Card 1 (continued)

Column 22, 23 (continued)	Question 37 Questionnaire	Item Detail Occupation of Respondents* (Specific)	Code
			(50 - 59) <u>White collar: office, clerical, etc.</u>
			51 - Sales workers: advertising, sales clerks, all mfg., wholesale, retail and other
			52 - Small shop keeper or dealer
			53 - Waiters, waitresses
			54 - 59 Open
			(60 - 69) <u>Blue collar: craftsmen, foremen, and kindred workers</u>
			60 - Craftsmen: carpenters, bakers, electricians, machinists, tailors, toolmakers, photographers, etc.
			61 - Foremen: all construction, mfg., transportation and communication, and other industries
			62 - Servicemen: telegraph, telephone, etc.
			63 - Mechanics and repairmen
			64 - Shoemakers, roofers, painters, and plasterers
			65 - Merchant marine, sailors (non-military)
			66 - Bus and cab drivers, motor-men, deliverymen, chauffers, truck and tractor drivers
			67 - Operators of all other mech. equipment (machine, vehicle, misc. mfg.)
			68 - 69 Open
			(70 - 74) <u>Service and Private Household workers</u>
			70 - Private household: laundress, housekeeper, cook
			71 - Firemen and policemen, sheriffs, and bailiffs
			72 - Attendants, professional and personal (valet, masseur, misc.)
			73 - Misc. attendants and services: hospital attendants, bootblacks, cooks
			74 - Open
			(75 - 79) <u>Military Personnel</u>
			75 - Ranking officers, all services (Navy Commander and up, Army and Marines, Colonel and up)

* See page 252.

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
22, 23 (continued)	37 Questionnaire	Occupation of Respondent* (Specific)	<p><u>(75 - 79) Military Personnel</u> 76 - Junior officers, Army and Air 77 - Junior officers, Navy and Marines 78 - Non-commissioned personnel, Army and Air 79 - Non-commissioned personnel, Navy and Marines</p> <p><u>(80 - 86) Laborers</u> 80 - Small farm owners, renters, and farm laborers (small farm has no heavy equipment, provides minimal income and substance, employs 3 or less persons full or part time, except for migrant help) 81 - Non-mfg., non-industrial: fishermen, hunters, lumbermen, miners, gardeners, teamsters, garage laborers, etc. 82 - Manufacturing of durable goods: wood, clay, stone (stonecutter), metal, glass, plastic, machinery, of all kinds 83 - Mfg. of non-durable goods: food, (bakery, beverages, etc.) tobacco, clothing, cloth, paper, printing chemicals, rubber, leather, etc. 84 - Non-mfg. industries: railroad, construction, transportation, workers, etc. 85 - 86 Open</p> <p><u>(87) No Employment</u> 87 - Persons who haven't worked, such as housewives, students or others who have never had a regular occupation</p>

***Instructions for Coder: OCCUPATIONS, COLUMNS 22-23:**

Coding information is derived from two sources:

1. Occupational description of groups as listed by the administrator.
2. Personal statements by the respondents in Question 37 of the questionnaire. Question 37 is the primary source of information. If vague or incomplete, score entirely from the notes of administrator.

* See page 252

Card 1 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
24	37 Questionnaire	Current Employment Status*	1 - Employed or self employed 2 - Retired 3 - Temporarily out of work 4 - Housewife, but formerly employed 5 - Unable to work, (other than retired or housewife) but formerly employed 6 - Student or persons trained for employment but not working for various reasons
25 through 44	1 through 20 <u>H-P Content**</u>	All questions in handicapped persons scale are to be scored from <u>raw data</u> . See instructions below.	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree

***Instructions for Coder: EMPLOYMENT STATUS, COLUMN 24.**

Code from questionnaire Question 37 if person clearly states employment status. If no employment is stated, and no indication with certainty from the administrator, score †.

****Instructions for Coder: HANDICAPPED PERSONS SCALE SCORING, COLUMNS 25-44.**

NOTE: CERTAIN STEPS AND PROCEDURES ARE THE SAME FOR THE EDUCATION SCALE AS FOR THE HANDICAPPED PERSONS SCALE. THESE PROCEDURES WILL BE WRITTEN IN CAPITAL LETTERS.

The content part of the question is the first half of the question (i. e. , the first score).

1. Reverse the content response numbering for the Handicapped Persons Scale (NOT the intensity response number) for items 2, 5, 6, 11, and 12 as follows:

The number of response 1 is changed to 4 and scored directly on data sheets.

<u>2</u>	<u>3</u>
<u>3</u>	<u>2</u>
<u>4</u>	<u>1</u>

2. Special instructions for NO RESPONSE. Count the number of NO RESPONSE items, if more than 6 occur, do not score the respondent for this scale. If there are 6 or less in the total, and 3 or less in sequence, the NO RESPONSE statement is to be scored either 1 or 2 by the random procedure of coin flipping.

If a head is obtained, the score assigned will be 1.
If a tail is obtained, the score assigned will be 2.

3. TOTAL THE RAW SCORES FOR EACH RESPONDENT AND WRITE THE TOTALS ON THE TRANSCRIPTION DATA SHEET DIRECTLY BELOW THE COLUMN TOTALED. ***

***By this procedure, the possible range of scores is from 0 to 80. Doubling the obtained score will approximate scores obtained by the method of Yuker et al. , (1960, p. 10).

Card 1 (continued)

4. INTENSITY RAW SCORES FOR EACH STATEMENT ARE TO BE SCORED ON THE DATA SHEET EXACTLY AS THEY APPEAR ON THE QUESTIONNAIRE: i. e. , IF 1 IS CIRCLED IN THE INTENSITY SECTION OF QUESTION ONE, SCORE IT AS 1 ON THE CORRESPONDING SECTION OF THE TRANSCRIPTION SHEET.
5. Dichotomization Procedures (i. e. , for MSA - applied to all scales¹).
 - a) Using raw data scores (i. e. , the actual number circled by the respondent) via the Hafterson CUT Program on the M. S. U. CDC 3600, determine the point of least error for each item on the content scales.
 - b) Using this point (i. e. , between 1 and 2, 2 and 3, and, 3 and 4) rescore the items, via recode card, as 0, 1 via the Hafterson MSA Program on the M. S. U. CDC 3600 to determine which items form a scale. Run at both .01 and .05 level
 - c) For Handicapped Persons Scale¹, items are scored 0 above the column break, 1 below the column break. For Education Scale scoring, the reverse is true: items are scored 1 above the column break, 0 below the column break.
 - d) Using the same procedure in point 5-a above determine the CUT points for the intensity component of each item.
 - e) Enter the MSA Program with the CUT points for the intensity component and scale as in Point No. 5-b for content.
 - f) Adjusted total scores for content and intensity. Sum the dichotomized content and intensity scores (i. e. , 0, 1) obtained by the above procedure for each respondent on these items that scaled for both content and intensity. Maximum score will be 1 x the number of the same items that scaled on both content and intensity.
 - g) Zero Point. Using only the items that scaled for both content and intensity, plot and determine the "zero point" for each cultural group (or other desired groupings) via the method detailed on pages 221-234 by Guttman (1950).
6. Dichotomization Procedure (alternative to no. 5 above). Attempt to program the CUT Program into the MSA so that both procedures under 5-a and b are conducted jointly.

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
45 through 64	1 through 20 <u>H-P Intensity²</u>	Handicapped Persons Scale <u>Intensity</u>	1 - 1. not strongly at all 2 - 2. not very strongly 3 - 3. fairly strongly 4 - 4. very strongly
1.	Except for NO RESPONSE, intensity scores are to be determined as noted in the preceding section regarding content.		

¹HP scale, blind scale, and deaf scale.

²Instructions for Coder: Handicapped Persons Scale, Intensity, columns 45-64. See instructions 1, 2, and 3 above.

Card 1 (continued)

2. Those scales which are rejected because of an excess of NO RESPONSE items in respect to content will of course also be rejected for intensity. Intensity questions which are unscored, but which occur when the content part of the question is scored, will be scored as follows:

If content score is 1 or 4, score intensity 4.

If content score is 2 or 3, score intensity just below the mean intensity score for that item; i. e., mean intensity of the group.

3. Intensity questions which are unscored, and which occur when the content part of the question is also unscored, will be scored at the highest point below the respondent's own median on the other intensity questions in the questionnaire; i. e., if respondent generally scored intensity questions either 4 or 3, so that the median was in between 3 and 4, score NO RESPONSE 2, and so forth.

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
65 through 74	3, 4, 6, 10, 11, 12, 13, 14, 18, 19*	Education Scale <u>Traditional</u> , <u>Content Responses**</u>	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree

1. Items are scored on the transcription sheet as circled by the respondent.
2. Follow the procedures outlined in caps on Pages 233-242 and 233-243 and 240-241 for the Handicapped Persons Scale. Be sure to score only those items indicated above as applying to the education traditional scale, content.

*The traditional and the progressive scales are both in the Kerlinger education scale but the responses are scored separately on the transcription sheet.

**Instructions for Coder: Education Scale, Traditional, Content, Columns 65-74. See instructions 1 and 2 immediately above.

Card 2

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
1, 2, 3	Face Sheet	Nation and Location	Same as Card 1, page 233
4, 5	Face Sheet	Group Number	01 - 99
6, 7	Face Sheet	Respondent Number	01 - 99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 234
9	37 Questionnaire	Occupational Recode (Interest group)	Same as Card 1, page 234
10	37 Questionnaire	Occupational Recode (Spec. Ed. Rehab SER)	Same as Card 1, page 234
11, 12	Face Sheet	Deck or Card number	02
13, 14	Face Sheet	Project Director	Same as Card 1, pages 234 and 235
15, 16	Face Sheet	Day of Administration	01-31
17, 18	Face Sheet	Month of Administration	01-12
19, 20	Face Sheet	Year of Administration	Same as Card 1, page 235
21	Face Sheet	Type of Administration	Same as Card 1, page 235
22, 23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 235 through 240
24	Face Sheet	Current Employment Status	Same as Card 1, page 240
25 through 34	3, 4, 6, 10	Education Scale, <u>Traditional, Intensity</u> Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly
35 through 44	1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Education Scale, <u>Progressive, Content</u> Responses**	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree

***Instructions for Coder: EDUCATION SCALE, TRADITIONAL, INTENSITY, COLUMNS 25-34.**
Intensity questions are scored as indicated in caps on pages 241-242, and as noted before, Handicapped Persons Scale, pages 240-241, instructions 1 through 5.

****Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, CONTENT, COLUMNS 35-44.**

1. Items are to be scored exactly as circled.
2. Follow the procedures outlined in caps on pages 240-242, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the education progressive scale content.

Card 2 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
45 through 54	1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Education Scale, ¹ <u>Progressive Intensity</u> Responses	1 - 1, not very strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly
55-56	<u>Raw S score</u>	Value Scale <u>Support</u> ² score	01 - 32
57-58	<u>Raw C score</u>	Value Scale <u>Conformity</u> ² score	01 - 32
59-60	<u>Raw R score</u>	Value Scale, <u>Recognition</u> ² score (comparative)	01 - 32
61-62	<u>Raw I score</u>	Value Scale, <u>Independence</u> ² score	01 - 32
63-64	<u>Raw B score</u>	Value Scale, <u>Benevolence</u> ² score (asset)	01 - 32
65-66	<u>Raw L score</u>	Value Scale, <u>Leadership</u> ² score (comparative)	01 - 32
67-68	Sum of item scores, 1-20, <u>Content</u>	Adjusted totals based on item dichotomization, <u>H. P. Scale, Content</u> ³	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score
69-70	Sum of item scores, 1-20, <u>Intensity</u>	Adjusted totals based on item dichotomization, <u>H. P. Scale, Intensity</u> ³	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score
71-72	Sum of item scores, 3, 4, 6, 10, 11, 12, 13, 14, 18, 19	Adjusted totals based on item dichotomization, <u>Education Traditional</u> <u>Content</u> ³	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score.

¹Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, INTENSITY, COLUMNS
45-54. Same as instructions for Education Scale, Progressive content, see page 243.

²Entries for columns 55-66 are obtained through scoring according to SRA Manual for Survey of Interpersonal Values, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois, 1960. For scoring, coders should use the special keys adapted from the SRA English edition of the scale. Although, the summed scores of the six value scales could total 90, scores between 84 and 95 are "acceptable."

³See card 1, page 232-241, instruction no. 5-f, to ascertain how adjusted total scores are obtained.

Card 2 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
73-74	Sum of item scores, 3, 4, 6, 10, 11, 12, 13, 14, 18, 19	Adjusted totals based on item dichotomization, <u>Education Traditional Scale Intensity*</u>	(Check dich. for no. to use here) Code will be: 00 or †9 to obtained score
75-76	Sum of item scores, 1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Adjusted totals based on item dichotomization, <u>Education Progressive Scale, Content*</u>	(Check dich. for no. to use here) Code will be: 00 or †9 to obtained score
77-78	Sum of item scores, 1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Adjusted totals based on item dichotomization, <u>Education Progressive Scale, Intensity*</u>	(Check dich. for no. to use here) Code will be: 00 to †9 to obtained score

*See card 1, page 241, instruction no. 5-f to ascertain how adjusted total scores are obtained.

Card 3

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
1, 2, 3	Face Sheet	Nation and Location	Same as Card 1 page 233
4, 5	Face Sheet	Group Number	01-99
6, 7	Face Sheet	Respondent Number	01-99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 234
9	37 Questionnaire	Occupational Recode (interest group)	Same as Card 1, page 234
10	New	Occupational Recode (Spec. Ed. -Rehab. SER)	Same as Card 1, page 234
11, 12	Face Sheet	Deck or Card Number	03
13, 14	Face Sheet	Project Director	Same as Card 1, pages 234 and 235
15, 16	Face Sheet	Day of Administration	01-31
17, 18	Face Sheet	Month of Administration	01-12
19, 20	Face Sheet	Year of Administration	Same as Card 1, page 235
21	Face Sheet	Type of Administration	Same as Card 1, page 235
22, 23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 235 through 239
24	Face Sheet	Current Employment Status	Same as Card 1, page 240
25, 26	1 Questionnaire	Contact group (Educ.)	<u>Primary</u> 1 - 01, Elem. School 2 - 02, Sec. School 3 - 03, University 4 - 04, Other as specified 5 - 05, No experience
27, 28	2 Questionnaire	Contact group (Educ.)	<u>Secondary</u> 1 - 01 2 - 02 3 - 03 SAME 4 - 04 5 - 05

(1) If any combination of alternatives 1, 2, and 3 are circled, code as 10, Impersonal Contact.

(2) If any combination of alternatives 4-8 are circled, code as 11, Personal Contact.

(3) If alternatives are circled in both divisions, code as 12, both Impersonal and Personal Contact. This requires coding alternative OTHER (i. e. , alternative 9) as either personal or impersonal contact; i. e. , according to its content.

These footnotes go with Columns 29, 30 next page.

Card 3 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
29, 30	3 Questionnaire	Educational Contact ¹ (Varieties)	1 - 01 Know nothing about Ed. 2 - 02 Read little about it 3 - 03 Studied about Ed. 4 - 04 Neighbor works 5 - 05 Friend works 6 - 06 Relative works 7 - 07 Family works 8 - 08 I work in Ed. 9 - 09 Other
31	4 Questionnaire	Amount of Contact (Educ.)	1 - 1, less than 3 months 2 - 2, 3 months to 6 months 3 - 3, 6 months to a year 4 - 4, 1 year to 3 years 5 - 5, 3 years to 5 years 6 - 6, 5 years to 10 years 7 - 7, over 10 years 8 - 8, over 15 years.
32	5 Questionnaire	Percentage of income from Education	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, 75 to 100%
33	5 Questionnaire	Enjoyment of Educational Work	1 - 2, disliked 2 - 2, not much 3 - 3, somewhat 4 - 4, enjoyed
34	7 Questionnaire	Alternative work (to education)	1 - 1, no alternative 2 - 2, unavailable 3 - 3, not acceptable 4 - 4, not quite acceptable 5 - 5, acceptable
35, 36	8 Questionnaire	Age	20 - 20 years 21 - 21 years 40 - 40 years
37	9 Questionnaire	Community in which reared. If more than one is checked, try to determine which one the respondent spent most of his time in. If impossible, try to choose a median (i. e., country, city, score country town).	1 - 1 country 2 - 2, country town 3 - 3, city 4 - 4, city suburb
38	10 Questionnaire	Employment community (recent)	1 - 1, country 2 - 2, country town 3 - 3, city 4 - 4, city suburb

¹See footnotes 1-3 on previous page.

Card 3 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
39	11 Questionnaire	Recent Residence	1 - 1. country 2 - 2. country town 3 - 3. city 4 - 4. city suburb
40	12 Questionnaire	Marital Status	1 - 1. married 2 - 2. single 3 - 3. divorced 4 - 4. widowed 5 - 5. separated
41, 42	13 Questionnaire	Number of children. If blank, check Ques. 13. If single score 00. If married, score -9.	1 - 01 2 - 02 3 - 03 . 10 - 10
43, 44	14 Questionnaire	Yearly Income (self-family) (for other nations see Special Instructions)	<u>UNITED STATES</u> 01 - less than \$1,000 02 - \$1,000 to \$1,999 03 - \$2,000 to \$2,999 . 10 - \$9,000 to \$9,999
45	15 Questionnaire	Comparative Income (self-family)	1 - 1. much lower 2 - 2. lower 3 - 3. about the same 4 - 4. higher 5 - 5. much higher
46, 47	16 Questionnaire	Brothers. If the respondent answers only one question (16 or 17) and the other is blank, assume it to be zero.	1 - 01 . 15 - 15
48, 49	17 Questionnaire	Sisters	Same as number of brothers
50, 51	None	Siblings--Obtain by summing above Questions 16 and 17, Cols. 46,47 and 48, 49.	1 - 01 . 15 - 15
52	18 Questionnaire	Father's Income: Comparative	1 - 1. much lower 2 - 2. lower 3 - 3. about the same 4 - 4. higher 5 - 5. much higher
53	19 Questionnaire	Religiosity (affiliation)	1 - 1. Roman Catholic 2 - 2. Protestant 3 - 3. Jewish 4 - 4. None 5 - 5. Other 6 - 6. Other major religions

Card 3 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
54	20 Questionnaire	Religiosity (Importance)	1 - 1, No religion 2 - 2, Not very 3 - 3, Fairly 4 - 4, Very
55	21 Questionnaire	Personalism (job-amount)	1 - 1, none 2 - 2, no contact 3 - 3, less than 10% 4 - 4, 10 to 30% 5 - 5, 30 to 50% 6 - 6, 50 to 70% 7 - 7, 70 to 90% 8 - 8, over 90%
56	22 Questionnaire	Personalism (job-importance of)	1 - 1, not at all 2 - 2, not very 3 - 3, fairly 4 - 4, very
57	23 Questionnaire	Personalism (job diffusion)	1 - 1, none 2 - 2, less than 10% 3 - 3, 10 to 30% 4 - 4, 30 to 50% 5 - 5, 50 to 70% 6 - 6, 70 to 90% 7 - 7, over 90%
58	24 Questionnaire	Social Class Position (Self)	1 - 1, lower 2 - 2, lower middle 3 - 3, middle 4 - 4, upper middle 5 - 5, upper
59	25 Questionnaire	Social Class Position (Father)	Same as above
60	26 Questionnaire	Education (self-amount) If more than one is circled, choose the highest amount or determine the appropriate answer.	1 - 1, three years or less 2 - 2, six years or less 3 - 3, nine years or less 4 - 4, twelve years or less 5 - 5, some college 6 - 6, degree 7 - 7, work beyond degree 8 - 8, advanced degree
61	27 Questionnaire	Education (Self-comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more

(6)

Card 3 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
62	28 Questionnaire	Education (Father Comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more
63	29 Questionnaire	Housing (type of)	1 - 1, rent house 2 - 2, rent apartment 3 - 3, rent room 4 - 4, purchase room and board 5 - 5, own apartment 6 - 6, own house 7 - 7, other
64	30 Questionnaire	Housing (rental month) (for other nations, see Special Instructions)	<u>UNITED STATES</u> 1 - \$20 or less 2 - 21 to 40 (dollars) 3 - 41 to 75 4 - 76 to 125 5 - 126 to 200 6 - 201 to 300 7 - 300 or more
65	31-A Questionnaire	Institutional Satisfaction Elementary Schools	1 - 3 do not know 2 - 1 poor 3 - 2 fair 4 - 4 good 5 - 5 excellent
66	31-B Questionnaire	Institutional Satisfaction Secondary Schools	Same
67	31-C Questionnaire	Institutional Satisfaction Universities	Same
68	31-D Questionnaire	Institutional Satisfaction Businessmen	Same
69	31-E Questionnaire	Institutional Satisfaction Labor	Same
70	31-F Questionnaire	Institutional Satisfaction Government (local)	Same
71	31-G Questionnaire	Institutional Satisfaction Government (national)	Same

Card 3 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
72	31-H Questionnaire	Institutional Satisfaction Health Services	1 - 3 do not know 2 - 1 poor 3 - 2 fair 4 - 4 good 5 - 5 excellent
73	31-I Questionnaire	Institutional Satisfaction Churches	Same
74	32 Questionnaire	Residency (current length)	1 - 1, less than a year 2 - 2, one to two years 3 - 3, three to six years 4 - 4, seven to ten years 5 - 5, over ten years
75	33 Questionnaire	Residency (Change- recent)	1 - 1, yes 2 - 2, no

Card 4

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
1, 2, 3	Face Sheet	Nation and Location	Same as Card 1, page 233
4, 5	Face Sheet	Group Number	01 - 99
6, 7	Face Sheet	Respondent Number	01 - 99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 234
9	37 Questionnaire	Occupational Recode (Interest group)	Same as Card 1, page 234
10	37 Questionnaire	Occupational Recode Spec. Ed. - Rehab. SER)	Same as Card 1, page 234
11, 12	Face Sheet	Deck or card number	04
13, 14	Face Sheet	Project Director	Same as Card 1, pages 234 and 235
15, 16	Face Sheet	Day of Administration	01 - 31
17, 18	Face Sheet	Month of Administration	01 - 12
19, 20	Face Sheet	Year of Administration	Same as Card 1, page 235
21	Face Sheet	Type of Administration	Same as Card 1, page 235
22, 23	Face Sheet	Occupation of Respondent	Same as Card 1, pages 236 through 239.
24	Face Sheet	Current Employment	Same as Card 1, page 240
25	34 Questionnaire	Job Change (recent)	1 - 1, yes 2 - 2, no
26	35 Questionnaire	Residency (Change frequency)(i. e. last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times
27	36 Questionnaire	Job (change frequency) (i. e. , last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times
28, 29	37 Questionnaire	Occupation (Specific)	Same as Card 1, pages 235 through 239

Card 4 (continued)

<u>Column</u>	<u>Questio</u>	<u>Item Deta</u>	<u>Code</u>
30	38 Qu		2 - 2, never 3 - 3, sometimes 4 - 4, usually 5 - 5, almost always
31	39 Questionnaire	Change Orientation (Fluoridation)	1 - 1, no 2 - 2, probably not 3 - 3, maybe 4 - 4, yes
32	40 Questionnaire	Change Orientation (child rearing)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree
33	41 Questionnaire	Change Orientation (Birth Control Practices)	1 - 1, always right 2 - 2, usually right 3 - 3, probably wrong 4 - 4, always wrong
34	42 Questionnaire	Change Orientation (Automation)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree
35	43 Questionnaire	Change Orientation (political leaders)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree
36	44 Questionnaire	Education (aid to - local)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree
37	45 Questionnaire	Education (aid to - federal)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree
38	46 Questionnaire	Education (planning responsibility)	1 - 1, only parents 2 - 2, only city or local government 3 - 3, primarily federal government
39	47 Questionnaire	Change Orientation (self)	1 - 1, very difficult 2 - 2, somewhat difficult 3 - 3, slightly easy 4 - 4, very easy
40	48 Questionnaire	Change Orientation (self-rule adherence)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly

Card 4 (continued)

<u>Item</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
	Questionnaire	Change Orientation (self - routine job)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly
42	50 Questionnaire	Personalism (Familialism - Parental ties)	Same
43	51 Questionnaire	Personalism (Other Orientation)	1 - 1, disagree strongly 2 - 2, disagree slightly 3 - 3, agree slightly 4 - 4, agree strongly
44	52 Questionnaire	Future Orientation (Planning)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly
45	53 Questionnaire	Future Orientation (Happiness)	1 - 1, nothing 2 - 2, money 3 - 3, friends 4 - 4, job 5 - 5, health 6 - 6, other
46, 47	54 Questionnaire	Future Orientation (Happiness Possibility)	01 - Nothing 02 - Marriage 03 - Divorce 04 - Friends 05 - Religion (Satisfaction with life) 06 - Money 07 - Job 08 - Education 09 - Health (mental) 10 - Health (physical) -9 - No Response

HANDICAPPED PERSONS QUESTIONNAIRE

48	1-Q-HP	HP Contact Group (Primary)	1 - 1, blind 2 - 2, partially blind 3 - 3, deaf (and mute) 4 - 4, partially deaf 5 - 5, crippled 6 - 6, disfigured 7 - 7, spastic 8 - 8, speech 9 - 0, none
49, 50	2-Q-HP	HP Contact Group (Secondary)	00 If there was no contact and ques- tions are not answered, score 0. 08 The score for this question is the <u>score of the response alterna-</u> <u>tives circled, i. e., scores can</u> <u>range from 0 to 8.</u>

Card 4 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
51, 52	3-Q-HP	HP Contact (varieties)	1 - 01, minimum knowledge 2 - 02, studied about HP 3 - 03, friend HP 4 - 04, relative HP 5 - 05, worked with HP 6 - 06, family HP 7 - 07, self is HP 8 - 08 9 - 09)*see note below - 10)
53	4 -Q-HP	HP Contact (amount)	1 - 1, less than ten 2 - 2, ten to fifty 3 - 3, fifty to 100 4 - 4, 100 to 500 5 - 5, over 500
54	5-Q-HP	HP Contact (ease of avoidance)	1 - 1, great difficulty 2 - 2, considerable difficulty 3 - 3, some inconvenience 4 - 4, no inconvenience
55	6-Q-HP	HP Contact (gain from)	1 - 1, no rewards 2 - 2, paid 3 - 3, credit 4 - 4, paid and credit
56	7-Q-HP	HP Contact (percentage income)	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, over 75%
57	8-Q-HP	HP Contact (enjoyment)	1 - 1, disliked, great 2 - 2, disliked, little 3 - 3, liked, some 4 - 4, definitely enjoyed
58	9-Q-HP	HP Contact (alternatives to)	1 - 1, No information on alternatives 2 - 2, No other job available 3 - 3, Other available job <u>not</u> acceptable 4 - 4, Other available job acceptable

*NOTE: If either or both alternatives 1 and 2 are circled, code as 08 - Impersonal Contact. If either or all alternatives 3-7 are circled, code as 09 - Personal Contact. If alternatives from both preceding divisions are circled, code as 10 - Impersonal and Personal contact.

Card 4 (continued)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code</u>
59	10-Q-HP	MR/Contact (amount)	1 - 1, less than ten 2 - 2, 10 to 50 3 - 3, 50 to 100 4 - 4, 100 to 500 5 - 5, over 500
60	11-Q-HP	EDP/Contact (amount)	Same
61, 62	Sum of item scores 1-20 <u>Content</u>	Handicapped Persons Scale Total <u>Content Raw Score</u>	00 - 80
63, 64	Sum of item scores 1-20 <u>Intensity</u>	Handicapped Persons Scale Total <u>Intensity Raw Score</u>	00 - 80
65, 66	Sum of item scores 3, 4, 6, 10, 11, 12, 13, 14, 18, 19	Education Scale, <u>Traditional Total Raw Content score</u>	00 - 40
67, 68	Sum of item score 3, 4, 6, 10, 11, 12, 13, 14, 18, 19	Education Scale, <u>Traditional Total Raw Intensity score</u>	00 - 40
69, 70	Sum of item scores 1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Education Scale, <u>Progressive Total Raw Content score</u>	00 - 40
71, 72	Sum of item scores 1, 2, 5, 7, 8, 9, 15, 16, 17, 20	Education Scale, <u>Progressive Total Raw Intensity score</u>	00 - 40

APPENDIX C. 5

Special Instructions to Code Book for Each Nation*

	Page
1. United States	258
2. Costa Rica	261
3. Colombia	262
4. Peru	263
5. England	264
6. Holland	265
7. France	267
8. Yugoslavia	268
9. Denmark	269
10. Japan	270
11. Belgium	272

*The nations are numbered in the order of the number assigned to them in the data analysis:
See Appendix A for statistical material and nation numbers.

Code BookUNITED STATES - KANSAS (009)
(Special Instructions)

<u>Card/Column¹</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code²</u>
		<u>Card 1</u>	
4-5		Group Numbers	<ul style="list-style-type: none"> -01 Institute of Logopedics - Dickie Regular Teachers and 6 Special Education -02 Institute of Logopedics - Weir Special Education -03 Institute of Logopedics - Weir Special Education Personnel -04 Institute of Logopedics - Weir Special Education Personnel -05 Institute of Logopedics - Dickie Special Education and Ancillary -06 Emporia State Teachers College - Dickie Special Education of Public School -07 Institute of Logopedics - Dickie Special Ed., Speech Pathologists 08 Corbin Education Center - Wichita State University - Dickie, Regular Elementary and Secondary 09 Institute of Logopedics - Weir Regular Elementary and Secondary 10 Town House Motel - Wichita - Dickie - Labor 11 Ramada Inn - Wichita - Dickie - Labor 12 YMCA - Wichita - Dickie - Labor 13 Wichita State University - Weir - Labor 14 Wichita State University - Weir - Labor 15 Wichita State University - Weir - Labor 16 Institute of Logopedics - Weir - Labor 17 Town House Motel - Dickie - Managers 18 Ramada Inn - Wichita - Dickie - Managers

¹The Card/Column designations refer to the location in the Code Book. International Study-865.

²Designates change and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book. United States - Kansas (009) (continued)

Card/Column	Question	Item Detail	Code
4-5		Group Numbers	19 YMCA - Wichita - Dickie - Managers 20 Wichita State University - Weir - Managers 21 Wichita State University - Weir - Managers 22 Wichita State University - Weir - Managers 23 Home - Weir - Managers 24 Special Education

Card 5

1-24 Same as Card 1 except Column 11-12 (i. e., Deck or Card no. 95)

25-44	<u>1 through 20 BP Content</u>	All questions in Blind Persons (BP) Scale are to be scored from raw data. See instructions below and on pages 240-241.	1-1, strongly disagree 2-2, disagree 3-3, agree 4-4, strongly agree
45-64	<u>1 through 20 BP Intensity</u>	BP Scale Intensity. See page 241 for instructions for scoring intensity.	1-1, not strongly at all 2-2, not very strongly 3-3, fairly strongly 4-4, very strongly
65-66	<u>Sum² of item scores, 1-20 Content, (BP)</u>	BP Scale. <u>Total Content raw score.</u>	00-80
67-68	<u>Sum² of item scores, 1-20 Intensity, (BP)</u>	BP Scale. <u>Total Intensity raw score.</u>	00-80
69-70	<u>Sum³ of adjusted item scores. Content, (BP)</u>	Adjusted Totals based on item dichotomization <u>Content (BP)</u>	00- (Check dich. for no. to use here. See p. 241 for instructions.)

Instructions to Coder: Blind Persons Scale Scoring Columns 25-44

¹Reverse the content response numbers for the Blind Persons Scale (not the intensity response numbers) for items 2, 10, 13, 14, 17, 19. See also p. 240-241 for procedures on HP scale. Special instructions for No Response. Same as number 2, p. 240.

²Same as 3, p. 240 International Code Book-865.

³Same as 5 p. 241 International Code Book-865.

Code Book, United States - Kansas (009) (continued)

Card/Column	Question	Item Detail	Code
71-72	Sum ³ of adjusted item scores. <u>Intensity (BP)</u> .	Adjusted totals based on item dichotomization <u>Intensity (BP)</u>	00- (Check dich. for no. to use here.) See p. 241 for instructions
<u>Card 6</u>			
1-24 Same as Card 1 except Column 11-12 (i. e. , Deck or Card no. <u>06.</u>)			
25-44	1 through 20 <u>HHP Content</u>	All questions in Hearing Handicapped Persons Scale (HHP) are to be scored from raw data See instructions below and on p. 240.	1-1. strongly disagree 2-2. disagree 3-3. agree 4-4. strongly agree
45-64	1 through 20 <u>HHP Intensity</u>	<u>HHP Intensity</u> See p. 241 for instructions for scoring intensity.	1-1. not strongly at all 2-2. not very strongly 3-3. fairly strongly 4-4. very strongly
65-66	Sum ² of item scores, 1-20 <u>Content (HHP)</u>	HHP Scale. Total <u>Content</u> <u>raw score.</u>	00-80
67-68	Sum ² of item scores, 1-20 <u>Intensity (HHP)</u>	HHP Scale. Total <u>Intensity</u> <u>raw score.</u>	00-80
69-70	Sum ³ of adjusted item scores <u>Content (HHP)</u>	Adjusted totals based on item dichotomization <u>Content (HHP)</u>	00- (Check dich. for no. to use here.) See p. 241 for instructions.
71-72	Sum ³ of adjusted item scores <u>Intensity (HHP)</u>	Adjusted totals based on item dichotomization <u>Intensity, (HHP)</u>	00- (Check dich. for no. to use here.) See p. 241 for instructions.

Instructions to coder: Hearing Handicapped Persons Scale, Columns 25-44

¹Reverse the content response numbers for HHP Scale (not the intensity response numbers) for items 1, 7, 10, 15. See also p. 241 of International Code Book-865 on HHP Scale. Special instructions for no response. Same as number 2, p. 240 International Code Book -865.

²See previous page.

³See previous page.

Code Book
COSTA RICA¹ (101)
(Special Instructions)

Column	Question	Item Detail	Code ²
<u>Card 3</u>			
43-44	14 Questionnaire	Income (yearly)	001 - less than 1,499 colones 002 - 1,500 - 2,999 003 - 3,000 - 4,999 004 - 4,500 - 5,000 005 - 6,000 - 7,499 units of 1,500 018 - 40,000 and over 888 - don't know 999 - no response.
64	30 Questionnaire	Rental (monthly)	1 - 50 or less colones 2 - 51-150 3 - 151-300 4 - 301-600 5 - 601-1,000 6 - 1,001-1,500 7 - 1,501 or more 8 - don't know 9 - no response

¹The Questionnaires used in Costa Rica were somewhat different from those used in the other ten nations. See Tables A 1-69 in Appendix A for those items omitted in the Costa Rican questionnaire.

²Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 Code Book.

Nation 3 = C.

Code Book

COLOMBIA (102)
(Special Instructions)

Column	Question	Item Detail	Code ¹
<u>Card 3</u>			
43-44	14 Questionnaire	Income (yearly)	01 - under 1,000 pesos 02 - 1,000 - 1,999 pesos 03 - 2,000 - 2,999 pesos 04 - 3,000 - 3,999 pesos to 20 - 19,000 to 19,999 pesos
64	30 Questionnaire	Rental (monthly)	0 - under 100 pesos 1 - 100 - 299 pesos 2 - 300 - 499 pesos 3 - 500 - 699 pesos 4 - 700 - 899 pesos 5 - 900 - 1,099 pesos 6 - 1,100 - 1,299 pesos 7 - 1,300 - 1,499 pesos 8 - 1,500 - 1,699 pesos 9 - 1,700 and over

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book
 PERU (103)
 (Special Instructions)

Column	Question	Item Detail	Code ¹
<u>Card 1</u>			
9		Occupational Recode (Interest Group)	0 - Rehabilitation 1 - Education 2 - Managers/Executives 3 - Labor
<u>Card 3</u>			
43-44	14 Questionnaire	Income (yearly)	00 - below 5,000 soles 01 - 5,000 - 9,999 soles 02 - 10,000 - 14,999 soles 03 - 15,000 - 19,999 soles 10 - 50,000 - 54,000 soles
64	30 Questionnaire	Rental (monthly)	0 - below 500 soles 1 - 500 - 799 soles 2 - 800 - 1,099 soles 3 - 1,100 - 1,399 soles (etc)
<u>Card 4</u>			
35	43 Questionnaire	Change Orientation (Political Leaders)	Omitted Score as missing data (Sensitive)
36	44 Questionnaire	Educational Aid (local)	Omitted Score as missing data (Sensitive)
37	45 Questionnaire	Educational Aid (federal)	Omitted Score as missing data (Sensitive)
38	46 Questionnaire	Education (plan.)	Omitted Score as missing data (Sensitive)
49.50	2 Questionnaire HP	Control Group (Secondary -HP)	Coding error - omit from analysis. Score as missing data

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Nation 5 = E.

Code Book

ENGLAND (201)
(Special Instructions)

Column	Question	Item Detail	Code ¹
<u>Card 3</u>			
25.26	1 Questionnaire	Ed. Contact (primary)	01 } 01 02 } 03 } 04 } 02 05 } 06 03 07 04 08 05
27.28	1 Questionnaire	Ed. Contact (secondary)	Same as above
37-39	9, 10, 11 Questionnaire	Community reared Employment community recent residence	Number 4 alternative omitted in each
43,44	14 Questionnaire	Income (yearly)	01 to 249 British pounds 02 250 -499 03 500 - 749 04 750 - 999 05 1,000 - 1249 units of 250
53	19 Questionnaire	Religious affiliation	1 - 1 Roman Catholic 2 - 5 Church of England 3 - 2 Protestant 4 - 3 Jewish 5 - 4 None 6 - 9 Other
64	30 Questionnaire	Rental (monthly)	1 to 7 British pounds 2 8-14 3 15-21 4 22-28 5 29-35 6 36-42 7 43-49 8 50-56 9 over 57

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book
HOLLAND (202)
(Special Instructions)

Column	Question	Item Detail	Code ¹
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Card 1

4-5	Face Sheet	Group Number	-01 Managers -02 Rehabilitation (SER) -03 Labor -04 Education
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Card 2

43-44	14 Questionnaire	Income (yearly)	Omitted (Sensitive)
1. <u>Rental</u> (monthly) Question 30 is coded as below and scored in Columns 43-44 where <u>income</u> is normally scored. Column 64 was then left <u>blank</u> for possible recoding of the rental question.			

<u>Dutch Guilders</u>	<u>Code</u>	<u>Dutch Guilders</u>	<u>Code</u>
0-24	-01	175-199	-08
25-49	-02	200-224	-09
50-74	-03	225-249	-10
75-99	-04	250-274	-11
100-124	-05	275-299	-12
125-149	-06	300-324	-13
150-174	107	etc. intervals of 25	

Card 4

36	44 Questionnaire	Aid to Education (local)	Omitted (not applicable) Code as missing data
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Card 5

1-24	Same as other face sheets except Columns <u>11-12</u> (Deck or Card No. 05)	
25 through 76	Questions Value Scale Questions 1 through 52	1 - Least 2 - Not chosen 3 - Most

Card 6

1-24	Same as other face sheets except Columns <u>11-12</u> (Deck or Card No. 06)	
25 through 62	Questions Value Scale Questions 53 through 90	1 - Least 2 - Not chosen 3 - Most

Code Book, Holland (202) (continued)

Column	Question	Item Detail	Code ¹
<u>Card 6</u> (continued)			
63-64	Raw Score Total	- S (Support)	00-32
	" "	- C (Conformity)	00-32
	" "	- R (Recognition)	00-32
	" "	- I (Independence)	00-32
	" "	- B (Benevolence)	00-32
	" "	- L (Leadership)	00-32

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Nation 7 = F.

Code Book
FRANCE (204)
(Special Instructions)

Card Column ¹	Question	Item Detail	Code ¹
<u>Card 1</u>			
1: 4, 5		Group Number (Admin.)	01 no occup. group 02 meaning. Each 06 group a mixture
1: 45-64	1-20	HP Scale <u>Intensity</u>	1-4 the order for 2-3 intensity only was 3-2 reversed. Also same 4-1 for Education Scale
<u>Card 2</u>			
2: 25-34		Traditional Education Scale <u>Intensity</u>	Same as above for HP Intensity
2: 45-54		Progressive Education Scale <u>Intensity</u>	Same as above for HP Intensity
<u>Card 3</u>			
3: 43-44	14 Questionnaire	Income (yearly)	01 to 999 New Francs 02 1,000 - 1,999 03 2,000 - 2,999 etc. increments of 1,000 New Francs
3: 57	25 Questionnaire	Personalism (job- diffusion)	Coding error--omit for analysis
3: 64	30 Questionnaire	Rental (monthly)	1 to 99 New Francs 2 100-149 6 300-399 3 150-199 7 400-499 4 200-249 8 500-599 5 250-299 9 600 up
4:36	44 Questionnaire	Education-aid (local)	Omitted. Code as missing data (not applicable)

¹The Card/column designations refer to the location in the Code Book. International Study
865.

Code BookYUGOSLAVIA (205)
(Special Instructions)

Column	Question	Item Detail	Code ¹
<u>Card 3</u>			
43-44	PQ 14	Income (yearly)	01 to 500,000 dinars 02 500,000 - 749,999 03 750,000 - 999,999 04 1,000,000 - 1,249,999 to 22 (units of 250,000)
58	PQ 24	Social Class (self)	Omitted. Score as missing data (sensitive)
59	PQ 25	Social Class (father)	Omitted. Score as missing data (sensitive)
64	PQ 30	Rental (monthly)	1 up to 4,000 dinars 2 4,000 - 7,999 3 8,000 - 11,999 4 12,000 - 15,999 5 16,000 - 19,999 6 20,000 - 23,999 7 24,000 - 27,999 8 28,000 - 31,999 9 40,000 and above
<u>Card 4</u>			
36	PQ 44	Aid to Education (local)	Omitted. Score as missing data (not applicable)

¹Designates change and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book

DENMARK (206)
(Special Instructions)

Column	Question	Item Detail	Code ¹
		<u>Card 3</u>	
43-44	PQ 14	Income (yearly)	01 to 4,999 Danish Kroners 02 5,000 - 9,999 03 10,000 - 14,999 04 15,000 - 19,999 05 20,000 - 24,999 etc
64	PQ 30	Rental (monthly)	1 under 199 Danish Kroners 2 200-299 3 300-399 4 400-499 5 500-599 6 600-699 7 700-799 8 800-899 9 above 1,000

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book

JAPAN (302)
(Special Instructions)

<u>Column</u>	<u>Question</u>	<u>Item Detail</u>	<u>Code¹</u>
<u>Card 1</u>			
4-5	Face Sheet	Group Number	01 Special ed. teachers 02 Teachers 03 Managers, Executives 04 Laborers 05 Government Officials
<u>Card 3</u>			
33	6 Questionnaire	Enjoyment of Educational work	1-1, disliked 2-2, not much 3-3, somewhat 4-4, enjoyed
43-44	14 Questionnaire	Income (yearly) (360 yen = \$1.00)	01-0 to 100,000 Yen 02-100,001 to 200,000 10-900,001 to 1,000,000 etc. in intervals of 100,000 99-over 9,800,000 Yen
53	19 Questionnaire	Religious Affiliation	1-1, Roman Catholic 2-2, Protestant 3-3, Jewish 4-4, Buddhist 5-5, Shinto 6-6, Other 7-7, None
64	30 Questionnaire	Rental (monthly) (360 yen = \$1.00)	1 0 to 3,000 Yen 2 3,001 to 6,000 3 6,001 to 9,000 4 9,001 to 12,000 5 12,001 to 15,000 6 15,001 to 20,000 7 20,001 to 35,000 8 35,001 to 50,000 9 50,000 Yen
<u>Card 4</u>			
31	39 Questionnaire	Change orientation (fluoridation)	1 - 1, probably not 2 - 2, no 3 - 3, maybe 4 - 4, yes

Column	Question	Item Detail	Code ¹
		Card 4 (continued)	
58	9-Q-HP	HP Contact (Alternatives)	1-1 no information on alternatives 2-2 no other job available 3-3 other available job <u>not</u> acceptable 4-4 other available job fairly acceptable 5-5 other job completely acceptable

¹Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Code Book

BELGIUM (203)
(Special Instructions)

Card Column	Question	Item Detail	Code¹
<u>Card 1</u>			
1: 4,5	Group Numbers (Administration)		01 (EN.S) -SER 02 (ENS.) -EDUC 03 (EMPL.) -M-EX 04 (TRAV.) -L
1: 45-64	1-20 Intensity HP Scale		1-4 The order for intensity only is 2-3 reversed. Same for all questions. 3-2 Also "true" for Education Scale. 4-1
<u>Card 2</u>			
2: 25-34	Ed. Scale Trad.	Intensity Ed. Scale	Same as for <u>HP Intensity</u>
2: 45-54	Ed. Scale Prog. Items	Intensity Ed. Scale	" " " " " "
<u>Card 3</u>			
3: 43-44	14 Questionnaire	Income (yearly)	Code for Income 3: 43, 44 01 under 100,000 francs 02 100,000 - 124,000 francs 03 125,000 - 149,000 francs in 25,000 increments to 600,000 and above
3: 45	21 Questionnaire	Personalism (Job amount)	1 See immediately below for through scoring system 7
<p>Belgium used the following scale for this question. Conversion to the numerical 1 through 7 system is indicated. Parfois. Souvent.</p> <p style="text-align: center;"> $\frac{1}{1} \quad \frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5} \quad \frac{1}{6} \quad \frac{1}{7}$ </p>			
3: 58	24 Questionnaire	Social Class Position (self)	1 Code alternatives in descending through order from 1 through 6. One 6 additional code. (no. 6) added here.
3: 59	25 Questionnaire	Social Class Position (father)	1 Same as Questionnaire 24 through 6
3: 60-62	Questionnaire #26--education #27--education #28--education	self-amount self-comparison father-comparison	1 through 9 Code alternatives in 1 through 5 descending order from 1 through 5 #1 onward.

Card Column	Question	Item Detail	Code ¹
3: 64	30 Questionnaire	Rental (monthly)	Code for Rent 3: 64 1 under 1,000 francs 2 1,000 - 1,999 francs 3 2,000 - 2,999 francs in 1,000 increments to 8,000 and above
3: 75	33 Questionnaire	Residency-change (recent)	Qui - 1 Non - 2
<u>Card 4</u>			
4: 25	34 Questionnaire	Job Change (recent)	Qui - 1 Non - 2
4: 28,29	37 Questionnaire	Occupation (specific)	Omitted ² Code as missing (Sensitive) data.
4: 30	38 Questionnaire	Religiosity (adherence)	Omitted. Code as missing (Sensitive) data.
4: 31	39 Questionnaire	Change Orientation (fluoridation)	Omitted. Code as missing data (Sensitive)
4: 36	44 Questionnaire	Education-aid (local)	Omitted. Code as missing data (Sensitive)
4: 56	7-Q-HP	Contact HP (percentage income)	1-- 2 - 1 3 - 2 4 - 3 5 - 4 6 - 5

¹Designates change and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

²Respondents felt it would "identify" them.

APPENDIX C. 6

FCC 1 & 2 Variable Print-Out Code Form

ATTITUDES TOWARD EDUCATION AND PHYSICALLY DISABLED PERSONS:

INTERNATIONAL STUDY

FCC 1 and 2

Variable-Computer Print-Out Code Form

**John E. Jordan
College of Education
Michigan State University
October 19, 1965**

Card 1

Field No.	Variable ¹ No. Question	Variable Name	Col.
1	Face Sheet of Scales	Nation	3
2	Face Sheet of Scales	Sex	8
3	37 Questionnaire	Interest Group Occupation	9
4	Face Sheet of Scales	Type of Administration	21
5	37 Questionnaire	Current Employment Status	24
6-25	H-P Scale	H-P Content	25-44
26-45	H-P Scale	H-P Intensity	45-64
46-55	Education Scale	Trad. Education-Content	65-74

Card 2

First 24 Columns SAME as Card 1 except for Col. 11, 12 (i. e., Deck or Card No.)

56-65	Education Scale	Trad. Education-Intensity	25-34
66-75	Education Scale	<u>Prog.</u> Education-Content	35-44
76-85	Education Scale	<u>Prog.</u> Education-Intensity	45-54

Card 3

86	13	4 Questionnaire	ED <u>Contact</u> (Amount)	31
87		5 Questionnaire	ED <u>Contact</u> (gain from)	32
88	14	6 Questionnaire	ED <u>Contact</u> (enjoyment)	33
89	15	7 Questionnaire	ED <u>Contact</u> (alternatives to)	34
90		9 Questionnaire	Early Youth Community	37
91		10 Questionnaire	Employment Community (recent)	38
92		11 Questionnaire	Residence Community (recent)	39
93		12 Questionnaire	Marital Status	40
94		15 Questionnaire	Income (comparative-self fam.)	45
95		18 Questionnaire	Income (father's comparative)	52
96		19 Questionnaire	Religious Affiliation	53
97	23	20 Questionnaire	Religiosity (importance)	54
98		21 Questionnaire	Personalism (job-amount)	55
99		22 Questionnaire	Personalism (job-importance of)	56
100		23 Questionnaire	Personalism (job-diffusion)	57
101		24 Questionnaire	Social Class position (self)	58
102		25 Questionnaire	Social Class Position (father)	59
103	24	26 Questionnaire	Education (self-amount)	60
104		27 Questionnaire	Education (self-comparative)	61
105		28 Questionnaire	Education (father-comparative)	62
106		29 Questionnaire	Housing (type of)	63
107		30 Questionnaire	Housing (rental-month)	64
108	28	31-A Questionnaire	Institutional Satisfaction (Elementary schools)	65
109	29	31-B Questionnaire	Institutional Satisfaction (Secondary schools)	66
110	30	31-C Questionnaire	Institutional Satisfaction (Universities)	67
111	31	31-D Questionnaire	Institutional Satisfaction (Businessmen)	68

¹The numbers in column two are the variable numbers assigned to the variables used in data analysis. See Appendix A, Tables A. 1-69 for details.

Field No.	Variable ¹ No. Question	Variable Name	Col.
112	32 31-E Questionnaire	Institutional Satisfaction (Labor)	69
113	33 31-F Questionnaire	Institutional Satisfaction (Local government)	70
114	34 31-G Questionnaire	Institutional Satisfaction (National government)	71
115	35 31-H Questionnaire	Institutional Satisfaction (Health Services)	72
116	36 31-I Questionnaire	Institutional Satisfaction (Churches)	73
117	32 Questionnaire	Residence (current length)	74
118	33 Questionnaire	Residence (change-recent)	75

Card 4

1st 24 columns SAME except for columns 11, 12 (i. e., Deck or Card No.)

119	34 Questionnaire	Job (change-recent)	25
120	35 Questionnaire	Residence (change-frequency)	26
121	36 Questionnaire	Job (change-frequency)	27
122	25 38 Questionnaire	Religiosity (adherence)	30
123	37 39 Questionnaire	Change orientation (fluoridation)	31
124	38 40 Questionnaire	Change orient. (child rearing)	32
125	39 41 Questionnaire	Change orient. (birth control)	33
126	40 42 Questionnaire	Change orient. (automation)	34
127	41 43 Questionnaire	Change orient. (political leaders)	35
128	43 44 Questionnaire	Education (aid to-local)	36
129	44 45 Questionnaire	Education (aid to-federal)	37
130	45 46 Questionnaire	Education (planning responsibility)	38
131	42 47 Questionnaire	Change orient. (self)	39
132	48 Questionnaire	Change orient. (self-rule adherence)	40
133	49 Questionnaire	Change orient. (self-routine job)	41
134	50 Questionnaire	Personalism (familialism)	42
135	26 51 Questionnaire	Personalism (other orientation)	43
136	27 52 Questionnaire	Future orient. (planning)	44
137	53 Questionnaire	Future orient. (happiness prerequisites)	45
138	1-Q-HP	HP Contact group (primary)	48
139	16 4-Q-HP	HP Contact (amount of)	53
140	17 5-Q-HP	HP Contact (ease of avoidance)	54
141	6-Q-HP	HP Contact (gain from)	55
142	7-Q-HP	HP Contact (percentage income from)	56
143	18 8-Q-HP	HP Contact (enjoyment)	57
144	19 9-Q-HP	HP Contact (alternative)	58
145	20 10-Q-HP	MR Contact (amount)	59
146	21 11-Q-HP	EP Contact (amount)	60

¹The numbers in column two are the variable numbers assigned to the variables used in data analysis. See Appendix A, Tables A. 1-69 for details.

Variable ¹		FCC II	International Study
Field No.	No. Question	Variable Name	Col.
<u>Card 1</u>			
1	Face Sheet	Group Number	4, 5
2	37 Questionnaire	Specific Occupation	22, 23
<u>Card 2</u>			
1st 24 columns SAME as Card 1 except for columns 11-12 (i. e. , Deck or Card No.)			
3	7 Value Scale	<u>Support Value</u>	55, 56
4	8 Value Scale	<u>Conformity Value</u>	57, 58
5	9 Value Scale	<u>Recognition Value</u>	59, 60
6	10 Value Scale	<u>Independent Value</u>	61, 62
7	11 Value Scale	<u>Benevolence Value</u>	63, 64
8	12 Value Scale	<u>Leadership Value</u>	65, 66
<u>Card 3</u>			
1st 24 columns SAME as Card 1 except for Columns 11-12 (i. e. , Deck or Card No.)			
9	1 Questionnaire	ED <u>Contact</u> group (primary)	25, 26
10	2 Questionnaire	ED <u>Contact</u> group (secondary)	27, 28
11	3 Questionnaire	ED <u>Contact</u> group (varieties of)	29, 30
12	22 8 Questionnaire	Age	35, 36
13	13 Questionnaire	Number of Children	41, 42
14	14 Questionnaire	Income (yearly, self-family)	43, 44
15	16 Questionnaire	Brothers (Do not use)	46, 47
16	17 Questionnaire	Sisters (Do not use)	48, 49
17	None	Siblings	50, 51
<u>Card 4</u>			
1st 24 columns SAME as Card 1 except for Columns 11-12 (i. e. , Deck or Card No.)			
18	37 Questionnaire	Occupation (specific)	28, 29
19	54 Questionnaire	Future Orient. (happiness possibility)	46, 47
20	2-Q-HP	HP Contact Group (secondary)	49, 50
21	3-Q-HP	HP Contact (varieties of)	51, 52
22	1 HP Scale	HP Total Content Raw Score	61, 62
23	2 HP Scale	HP Total <u>Intensity Raw Score</u>	63, 64
24	3 Education Scale	Trad. Educ. Total <u>Cont. Raw Score</u>	65, 66
25	4 Education Scale	Trad. Educ. Total Int. Raw Score	67, 68
26	5 Education Scale	Prog. Ed. Total <u>Cont. Raw Score</u>	69, 70
27	6 Education Scale	Prog. Ed. <u>Total Int. Raw Score</u>	71, 72

¹The numbers in column two are the variable numbers assigned to the variables used in data analysis. See Appendix A, Tables A. 1-69 for details.

APPENDIX D

Counterpart Personnel: By Nation

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APPENDIX E

Statistical Procedures

Measurement Procedures

Descriptive Statistics

Two frequency Column Count Programs (Clark, 1964), designated FCC I and FCC II, were used. These programs were used to compile the frequency distributions for every item from each of the instruments. Inspection of the frequency data proved to be a very useful step in selecting additional variables for analysis and in gaining a clinical "feel" for the data.

Simple Correlation

In the CDC 3600 MDSTAT program (Ruble and Rafter, 1966) a large amount of data can be used in one analysis. Separate analysis can be done for the total group and for any number of specified sub-groups, or partitionings, of the data. For each specified group (such as total, male, female) a number of statistics can be requested. Those used for each partitioning in this research program were: means and standard deviations for each variable, and the matrix of simple correlations between all variables (see Appendix A for statistical material).

Partial and Multiple Correlation

Partial and multiple correlation are outputs of the general multiple regression model used in the CDC 3600 program at Michigan State University (Ruble, et al., 1966). One advantage in using partial correlation is that a number of variables which are assumed to have some relationship to a criterion, or dependent variable, can be examined simultaneously. Often when a series of Pearsonian product-moment r 's are computed between a criterion and a set of variables considered to be predictors of the criterion, spurious conclusions are sometimes obtained because the predictor variables are themselves interrelated, rather than directly predictive of the criterion.

In a partial correlation solution to the problem, these relationships among the predictor variables are considered in computing the true correlation of each variable with the criterion. That is, the effects of all but one variable are held constant.

The use of multiple regression analysis is recommended by Ward, J. H. (1962, p. 206) because it "not only reduces the dangers inherent in piecemeal research but also facilitates the investigation of broad problems never before considered researchable." The multiple correlation program yielded

the following statistics: the beta weights of all (i. e. , those used) predictor variables, a test of significance for each beta weight, and the partial correlations between each predictor and the criterion.

Rank Order Correlation

Rank order correlations were obtained from the Rank Correlation Coefficients Program (Morris, J. , 1967) at Michigan State University, which allows one to obtain Rho, Tau, the Coefficient of Concordance, and the Spearman product moment correlations in one operation. Rho was used in this analysis.

Mean Difference Analysis

For convenience of computer programming, the F statistic was used for all testing of mean differences, though differences between two means are usually tested by the t statistic. The results are the same for both methods (Edwards, 1960, p. 146). If an F between two means is significant, inspection of the size of the two means will indicate which one is larger and thus the main contributor to the differences reflected in the F. Since a significant F merely shows that the variance projected in the hypothesis is greater than would be expected by chance, the specific relationship between the dependent variable and the variable represented by the levels or groups must be investigated.

A two-way analysis of variance design for unequal N's was used to analyze group-sex interaction (Ruble, et al. , 1966). Since the samples were not equal in size or sex ratio within groups, an "adjusted mean" was computed on which to base all F tests in the two-way analysis of variance problems. The adjusted mean equalized or accounts for both the variance in the size of the group samples and the unequal sex distribution. The F test for the group comparison is the usual one while the F test used to test for differences between adjusted means is equal to two-sided t test while also fully accounting for the other experimental factors.

This procedure for testing for significance among multiple means is approximately equal to Duncan's New Multiple Range Test (Edwards, 1960; Kramer, 1956, pp. 307-310) when three or less treatment means are being tested. The procedure is somewhat more liberal than the Duncan's test only when more than three means are included, thus increasing the likelihood of Type I error. The procedure also does not account for the non-independence among the pairs of treatment means.

The UNEQI routine (Ruble, Paulson, and Rafter, 1966) was used to calculate the one-way analysis of variance statistics. The program is designed to handle unequal frequencies occurring in the various categories. In addition to the analysis of variance tables, the frequency, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean were included for each category.

The approximate significance probability of the \underline{F} statistic is also included in the computer print-out. This convenient figure enables the researcher to know if the \underline{F} was significant without referring to a table. For example, if the number printed out was .05, the level of confidence, with appropriate degrees of freedom, would be .05 or less.

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