

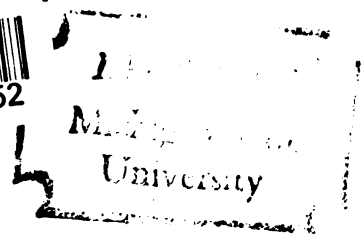
A GUTTMAN FACET ANALYSIS OF ATTITUDES  
TOWARD THE MENTALLY RETARDED IN COLOMBIA:  
CONTENT, STRUCTURE, AND DETERMINANTS

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY

KENNETH R. GOTTLIEB

1973



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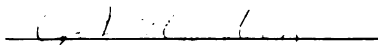
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A Guttman Facet Analysis of  
Attitudes toward the  
Mentally Retarded in Colombia:  
Content, Structure, and Determinants  
presented by

Kenneth R. Gottlieb

has been accepted towards fulfillment  
of the requirements for

PH.D. degree in Counseling, Personnel  
Services, and Educational  
Psychology

  
Major professor

Date December 8, 1972

## ABSTRACT

### A GUTTMAN FACET ANALYSIS OF ATTITUDES TOWARD THE MENTALLY RETARDED IN COLOMBIA: CONTENT, STRUCTURE, AND DETERMINANTS

By

Kenneth R. Gottlieb

Whether the mentally retarded are rejected or stimulated to develop their capacities, or whether they burden others or contribute as productively as possible to their community depends upon the attitudes which the public in general, and individuals with direct contact in particular, hold. Antecedent to establishing a viable program for the mentally retarded or in effecting favorable changes toward them would be the need to investigate and assess the prevailing attitudes themselves.

The present study was part of a comprehensive project<sup>1</sup> to research attitudes of specified groups among nations of varied development, resources, and social characteristics. Colombia was selected because it provided a useful comparison, ranking, as it would seem, midway between the highly industrialized and the undeveloped rural nations.

---

<sup>1</sup>Directed by John E. Jordan, Ph.D., College of Education, Michigan State University, East Lansing, Michigan, 48823.

Moreover, as a representative hispanic country, its language, culture, and socio-economic patterns would contrast markedly from Europe, Asia, and the United States. To investigate attitudes toward the mentally retarded held by four Colombian groups (regular elementary school teachers, regular secondary school teachers, parents of the mentally retarded, and special education and rehabilitation personnel) was a major aim of this research.

Another major aim was to reconcile the conflicting findings regarding attitudes toward the retarded, which an extensive review of the literature revealed. By use of an instrument constructed according to Guttman facet theory, which postulates that attitudes toward a given object are multidimensional, it was hoped that greater precision and predictive ability would be obtained. Thirteen hypotheses, adapted from previous studies on the physically handicapped, were selected for testing.

#### Instrumentation and Theory

Guttman's facet theory maintains that an attitude universe can be substructured into components which are systematically related by the number of identical conceptual elements they hold. Guttman proposed that at least three facets (subject's behavior, referent, and referent's intergroup behavior), each containing a strong and weak element (or aspect), were necessary in constructing an attitude scale in respect to intergroup behavior. From among the possible combinations of the weak and strong elements of the three

facets, four basic semantic profiles or Levels were progressively ordered and identified. Jordan's expansion of the original three facets to five led to the development of a six-Level attitude-behavior scale. The six Levels were identified as (a) Stereotypic, (b) Normative, (c) Moral Evaluative, (d) Hypothetical, (e) Personal Feeling, and (f) Personal Action.

Also included in the questionnaire were scales to measure four essential determinants of attitudes: (a) values, (b) knowledge about the mentally retarded, (c) contact with the mentally retarded, and (d) demographic factors. Additional items tapped information on efficacy (one's sense of control over the environment), on educational aid and planning, and on religious importance and adherence.

Instrumentation based on Guttman facet analysis has advantages of more accurate and systematic sampling of an attitude universe and of providing an a priori technique to ascertain hypothesized relationships among attitude Levels and among variables with greater predictive ability. Facet design identifies facets before one "tests" rather than afterwards.

### Results

The independent variables of knowledge about mental retardation, efficacy, educational aid and planning, and religiosity failed to be adequate "single" predictors of attitudes toward retarded persons. The respondent's values to a limited extent and especially the quantity and quality

of contact with the retarded served as more predictive determinants of attitudes. The significantly more favorable attitudes that Colombian men indicated toward the retarded than that of Colombian women was an unexpected and interesting reversal. The demographic variable on age was also a significant predictor which complicated the sex-difference findings since men were significantly older than women.

Among the four groups, parents of the mentally retarded generally ranked first in favorable attitudes, thus corroborating the impact parents have had in the development of mental retardation programs in Colombia.

Simplex results confirmed the methodological usefulness of Guttman facet theory in scale construction and introduced a new and important concept in attitude theory: attitudes are multidimensional and can be ordered from stereotypic attitudes to actual personal action.

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MENTALLY RETARDED IN COLOMBIA: CONTENT,  
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Kenneth R. Gottlieb

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services,  
and Educational Psychology

College of Education

1973

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## PREFACE

The present study is an example of the "project" approach to graduate research. Rather than investigating unrelated or isolated topics, the author has participated in a comprehensive cross-cultural project which has involved and will involve many researchers (Erb, 1969; Hamersma, 1969; Maierle, 1969; Morin, 1969; Whitman, 1970; Harrelson, 1969; and Poulos, 1970). Common to all studies was the use of Guttman facet theory as applied to intergroup attitudes and behavior. Similarities in the approach to the research problems, instrumentation, design, and analysis will be therefore apparent because each study was intended as a "building block" in a larger undertaking in which subsequent studies might gain from those prior, and because common areas were ideally suited to joint development and refinement. Nevertheless, localities, samples, necessary adaptations, and interpretations in each study are those of the author.

DEDICATION

TO

Dr. Walter S. Nosal  
of John Carroll University

and

Bernard Daniel Duber,  
my friend

who prompted and encouraged me  
to further my education in counseling  
on the doctoral level

## ACKNOWLEDGMENTS

To express appreciation to all persons and institutions that contributed to my efforts to carry out the research and to write and complete this thesis would require many more pages than are customarily allotted for an "acknowledgment." The services rendered by those whose names cannot be cited have not been ignored or unappreciated in the writer's mind.

I wish to single out Dr. John E. Jordan as the foremost recipient of my gratitude. Dr. Jordan served as my adviser and chairman of my doctoral committee. His optimism and good will were always reassuring; his patience, remarkable. I am grateful to Dr. Donald Burke, Dr. James R. Engelkes, and Dr. Thomas Gunnings for serving as members of my doctoral committee.

Since the data for this research was obtained in Colombia, I am grateful to all the Colombians who participated in the survey or who were instrumental in facilitating the research. I am indebted to Dr. Alfonso Ocampo L., former Rector of the University of Valle, Cali, Colombia, under whose sponsorship and cooperation the present study was possible. Special mention is given to Victor Manuel Gómez C.,

whose conscientious and pains-taking translation of the questionnaire from English into Spanish was indispensable. Other grateful acknowledgments go to Dr. Luís H. Pérez, former Head of the Department of Psychology, University of Valle; Dr. Josué Angel Maya, Dean of Education, University of Valle; and to the university faculty who provided helpful criticism: Drs. Rubén Lechter, Octavio Giraldo N., Judith Bolívar, Alicia Ortega, Mario Gallegos, Hencker, Ernán Navarro, and José Bautista O.

I thank the Valle and Cali boards of education for their authorization and assistance to administer the Attitude-Behavior Scale for the Mentally Retarded (ABS-MR) to samples of teachers. Special thanks go to Dr. Victor Daniel Guerrero Campo, Head of Secondary Education for the Department of Valle; Dr. Luís E. Rodriguez Bueno, Head of Primary Education in Cali; and Sr. Felix Vera Correa, Zone 1 supervisor, who is remembered for his enthusiastic support.

For their part in helping me to reach parents of the retarded I am grateful to Dr. Timothy Loeb, founder of the Tobías Emanuel Institute for the Retarded; Sra. Ofelia de Romero, program director; Sr. Saúl Uriza, president of the board, Dr. Oscar Echeverri, Director of the Colombian Association for Mentally Retarded Children (ACONIR); Dr. Carlos E. Castro H., Director of the Institute for Mentally Retarded Children in Cúcuta; and Sra. Inês Camara de Quijano,

Director of the Santander Association for Mentally Retarded Children in Bucaramanga.

I wish to thank the Center for Latin American Studies at Michigan State University for financing my round-trip flight to Colombia. Recognition is also given to the Rehabilitation Services Administration, Department of Health, Education, and Welfare, Washington, D. C. for their training grants.

I wish to express appreciation to a number of secretaries, typists, and related professionals who helped with the computer operations and writing drafts among whom are Daniel Seyb, Pam Sniegowski, and Judy Little. Finally, I wish to thank my employers of the past three years, the Tri-County Mental Health Board; Dr. Eugene W. Friesen, Director of Ingham Medical Hospital Community Mental Health Center; Dr. Romuldas Kriauciunas, Coordinator of Outpatient Services; and my fellow co-workers for their cooperation and encouragement.

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## CHAPTER I

### INTRODUCTION

The present thesis is part of a comprehensive, cross-cultural project at Michigan State University to research attitudes toward mentally retarded persons (Jordan, 1971a; 1971b). The purpose of the present study was to investigate attitudes toward mentally retarded persons among several groups in Colombia.

Colombia typifies a transitional society--one moving from a rural economy with easily defined social classes to an urban, industrial, interdependent complex. With the selection of Colombia, comparisons with populations in Europe, the United States, and Asia will be possible in the larger study by Jordan (1971a).

Mental retardation becomes more observable as infant survival increases and as an increasingly technically complex society demands more from its members to function. More accurate methods of diagnosis and an expanding population result in a greater absolute number of persons designated as mentally retarded.

Quevedo (1968a) states that "some special conditions persist in Colombia which make us affirm undeniably that the

problems of mental retardation in our country can reach truly alarming figures." Among conditions cited were an exploding birth rate, estimated equal to that of France, but without that country's standard of health. For example, in 1966 over 18,000 cases of whooping cough and 300,000 of enteritis--often accompanied by severe dehydration--among two-year olds were reported in Colombia. Other conditions were widespread economic deprivation and family instability (of 4,000,000 women between 15 and 49, over half were "single" or widowed according to the 1964 census). Quevedo states that the amount of retardation in Colombia arising from biological, sociocultural, and emotional causes is difficult to determine. Statistics on the prevalence of mental retardation for Latin American countries, he reports, were not found.

Echeverri and Quevedo (1966) investigated the incidence of mental retardation among children under 16 in Cali, Colombia--a fast-growing agricultural center with an estimated population of 800,000. With assistance from the Department of Statistics of the School of Medicine, a team of students and social workers visited 40 randomly selected homes in each of three districts representing lower, middle, and upper classes. An expressed assumption in the published report was that the characteristics of the three districts studied were similar to those one would expect to find in any other district so classified in that population. This team of ten interviewed nearly 700 people. Children suspected

of mental retardation were sent to the university clinic for diagnostic tests. The researchers arrived at an estimate that of the population under 16, 4.4 per cent were mentally retarded. This figure is especially significant, Quevedo states, since 48.8 per cent of the nation was under 15 according to the 1964 Colombian census.

Another interesting finding of this study was that retardation factors were more significant in the middle class district. Echeverri and Quevedo concluded that it was the middle class "which suffered the greatest impact of social change and economic exigency" in Colombia. It may well be that a transitional society with an emerging middle class correlates with increased retardation.

Gunzburg (1958) states that mental retardation, unlike a physical handicap, is to a large extent a social concept. Wright (1960), Hutt and Gibby (1965) and Gunzburg (1958) have stressed the necessity for concern with the reactions of society to mental retardation. Many of the behavioral reactions of the retardate are learned reactions which are a function of his social environment (c.f., Cohen, 1963; Peckham, 1951). Quevedo states:

Feelings of blame, superstitions, and various interpretations distorted by folklore lead the retarded child to regard himself with misgiving, fear, pity, and even at times with derision; the same families have adopted attitudes which range from extreme over-protection to clear rejection. The shame of having a retarded child among us and the economic impact that his rehabilitation means to his family have delayed efforts in behalf of the retarded child. Retardation, moreover, deprives the nation of a human potential

which, sufficiently stimulated and utilized, can become a source of income to the nation--or at least reduce costly activities of supervising neglected retardates. The nation is probably losing about \$330,000 daily considering that one half of the mentally retarded are unproductive and will continue to be dependent for the rest of their days if they are not adequately rehabilitated.

In the last analysis, the attitudes of society also determine the programs that are provided for adequate care, treatment and rehabilitation. Greenbaum and Wang (1965) point out that the vast majority of retardates could be helped to lead socially useful and independent lives if they were able to obtain early the proper encouragement and guidance.

The likelihood of their doing so depends in great part on the attitudes and conceptions of mental retardation held by the public in general, and in particular by those individuals who have direct contact with the mental retardate at significant times in his life (p. 257).

Despite the importance of community attitudes, however, very little systematic research has been directed toward uncovering factors related to attitudes toward the mentally retarded. Neither have the relationships and relevance of different attitudinal sub-universes been studied in relation to: (a) the demographic characteristics of the subject; (b) the value orientation of the person; (c) the amount of contact a person has had with the mentally retarded; (d) the amount of factual knowledge about retardation he possesses; and (e) the existing social structure within cultural groups.



A previous review of literature (Jordan, 1968) on attitude studies concluded that four classes of variables seem to be important determinants, correlates, and/or predictors of attitudes: (a) demographic factors such as age, sex, and income; (b) socio-psychological factors such as one's value orientation; (c) contact and enjoyment of the contact; and (d) the knowledge factor, i.e., the amount of factual information one has about the attitude object. The review indicated, however, that most of the research studies were inconclusive or contradictory about the predictor variables and Jordan (1968) suggested that the reason might very well be attributed to the fact that the attitude scales were composed of items seemingly stemming from different structures: i.e., from different Levels of attitude sub-universes. Lack of control over which attitudinal Levels are being measured seems likely to continue to produce inconsistent, contradictory, and noncomparable findings in attitude research.

Louis Guttman, Hebrew University, Israel, has developed a facet theory methodology<sup>1</sup> that may reverse the present inconclusive and contradictory attitudinal research findings. Guttman analyzed the work of Bastide and van den Berghe (1957) and proposed four Levels of an attitude universe: (a) stereotypic; (b) normative; (c) hypothetical interaction; and (d) personal interaction. From this

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<sup>1</sup>See glossary for terminology and major concepts.

viewpoint, attitudes are not single entities, but are made up of different gradations: from the purely intellectual (covert) to the behavioral (overt). They range, in this scheme, from the stereotypic to the subject's actual reported actions. Being aware of these Levels and their elements and content, the researcher gains a greater degree of ability to instrument the variables. By dividing the attitude universe into sub-universes, the researcher should have more control over attitude structure and content which should, in turn, produce more consistent, stable, and replicable findings.

This study is part of a current, comprehensive cross-cultural project conducted by Jordan<sup>1</sup> and a number of doctoral students to research attitudes toward the education, rehabilitation, and social acceptance of the mentally retarded in the United States, Brazil, Belize (British Honduras), Colombia, Iran, Israel, West Germany, and Yugoslavia. Other nations are likely to be added. The comprehensive project as well as this study has two major concerns: (a) a substantive interest and (b) a methodological approach.

#### Substantive Aim

The substantive aim of the present project explores the relationship of selected variables to attitudes of designated groups toward mental retardation as well as

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<sup>1</sup>A previous study by Jordan (1968) has already explored cross-cultural attitudes toward the physically disabled.

differences between groups. Different components or facets of attitudes toward retardation are analyzed. In this study, the substantive aim was:

1. To determine predominant value orientations and attitudes toward education, rehabilitation, and social acceptance of the mentally retarded among the following "interest groups" in Colombia:
  - a. Regular elementary school teachers (RST-E)
  - b. Regular secondary school teachers (RST-S)
  - c. Parents of the mentally retarded (PMR)
  - d. Special education and rehabilitation personnel (SER)
  
2. To assess the predictive ability of the following hypothesized determinants of attitudes toward mental retardation:
  - a. Demographic
  - b. Valuational
  - c. Contactual
  - d. Knowledge
  
3. To test the hypothesis of an invariate structure of attitudes across nations, i.e., that the Guttman simplex (Guttman, 1959, 1966) will be maintained across groups and in the larger international study across nations.

#### Methodological Approach

Unless the measurement problems of assessing attitudes is at least partially solved, there can be no rational attack on substantive research on attitudes. The instrument used to measure attitudes toward the mentally retarded is

the Attitude Behavior Scale--Mental Retardation (ABS-MR)--  
Jordan (1970b, 1971b) which measures six Levels of a person's  
interaction with the attitude object (the mentally retarded).  
The scale and its development is discussed under the section  
dealing with instrumentation.

## CHAPTER II

### REVIEW OF RELATED RESEARCH

Mendelsohn (1954) more than a dozen years ago suggested that a fruitful area of investigation for researchers interested in improving the lot of the retarded would be "to find out first what informational and attitudinal clusters concerning mental deficiency exist among the community's population (p. 507)." A review of the literature appearing since Mendelsohn's suggestion reveals that a number of studies have since emerged in this area; not surprisingly, most have appeared in the American Journal of Mental Deficiency. At the outset, it may be stated that these studies vary considerably in sophistication, design, instrumentation, and control; most are not comparable, and few warrant more than passing consideration. Table 1 contains a facet theory "mapping sentence" from which the review of literature was guided.

#### Attitudes Toward Mental Retardation

One of the most comprehensive studies encountered in the literature, and the one most related to the present research, was that conducted by Greenbaum and Wang (1965)

TABLE 1.--A mapping sentence for a review of research on attitudes toward mental retardation.

<p>(C)</p> <p><u>Determinants</u></p> <p>c1 Values c2 Contact c3 Knowledge c4 Demographic c5 Culture</p>	<p>held by</p>	<p>(A)</p> <p><u>Attitudes</u></p> <p>a1 Stereotypic a2 Normative a3 Moral Evaluation a4 Hypothetical a5 Feeling a6 Action</p>	<p>and their</p>	<p>(B)</p> <p><u>Structure</u></p> <p>b1 Referent b2 Referent behavior b3 Actor b4 Actor's intergroup b5 Domain of actor's behavior</p>	<p>and</p>	<p>(E)</p> <p><u>Referent</u></p> <p>e1 Mentally Retarded e2 Non MR e3 etc.</p>	<p>concerning</p>
<p>(F)</p> <p><u>Characteristics</u></p> <p>f1 Adjustment f2 IQ level f3 Employability f4 Achievement f5 Citizenship</p>	<p>using</p>	<p>(G)</p> <p><u>Research Methods</u></p> <p>g1 Type 1.1 Exploratory 1.2 Survey 1.3 Experimental g2 Sophistication 2.1 Samplings 2.2 Controls 2.3 Hypotheses</p>	<p>and</p>	<p>(H)</p> <p><u>Analysis Procedures</u></p> <p>h1 Content h2 Means tests h3 Correlation Analysis of variance Facet theory Nonmetric methods</p>			

Note: A number of facets can also be subfaceted by category (i.e., especially facet "F").

who investigated the attitudes of several groups that came in direct contact with the mentally retarded at significant times in their lives. These authors administered a twenty-one scale semantic differential measuring conceptions of four terms describing mental retardation ("idiot," "imbecile," "moron," and "mentally retarded") and three terms describing mental illness ("mentally ill," "emotionally disturbed," and "neurotic") to over 300 adult respondents who were selected from among the following four populations: (a) parents of mentally retarded children (100); (b) professional experts who were likely to advise or treat the mentally retarded (55 vocational counselors, 12 high school teachers of the mentally retarded, 25 school psychologists, and 13 physicians); (c) potential employers of the mentally retarded (68 executives); and (d) paraprofessional employees (37) and volunteers (26) who worked with institutionalized mental retardates.

Nine of the twenty-one scales measured the three factors of Evaluation (e.g., good-bad, pleasant-unpleasant), Potency (e.g., strong-weak, rugged-delicate), and Activity (e.g., fast-slow, hot-cold) found by Osgood, Suci, and Tannenbaum (1957) through factor analytic work on semantic differential data to most consistently and prominently describe the semantic space in which terms and concepts may be ordered in general. The remaining twelve scales were assembled in an attempt to assess attitudes toward the retardate's social stimulus value, his physical health, and

psychological properties or attributes. The data were analyzed primarily by means of the "sign" test.

The findings indicated that the paraprofessionals had a significantly more positive attitude than any of the other groups, with the parents having significantly more positive attitudes than both the professionals and the employers--the latter had the most negative attitudes of the groups measured while the professionals had a significantly more positive score than the employers on the Evaluative factor only.

It was found that the general structure of conceptions of the mentally retarded was the same for all groups, i.e., the scores co-varied. This conception, however, was mainly a negative one. Only three of the scales averaged in a direction just barely positive while seven were strongly negatively evaluated. Parents and professionals were clearly ambivalent on the Evaluative factor. In addition, it was found that all groups had a more negative conception of the mentally retarded than of the mentally ill.

Analysis of the data by demographic variables yielded the following results: (a) the less well educated and those of lower socioeconomic standing were more favorably disposed toward the mentally retarded; (b) female subjects tended to have more positive conceptions of mental retardates than males; this latter finding, however, may have been confounded by the sexual composition of the various



groups; (c) there was a nonsignificant trend for older subjects to hold more positive images of the retarded than younger subjects.

Greenbaum and Wang (1965) offer some explanations for their findings and their study was, in general, well conceived and executed. A question might be raised as to whether some differences may have been lost as a result of treating the data for counselors, special education teachers, and physicians under one concept, i.e., "professional experts." The authors offer a rationale for treating the four terms referring to mental retardation under one concept, but it is wondered how various groups reacted to various labels--the authors do state that reactions to the terms "mentally retarded" and "moron" were generally more favorable than the reactions to the terms "idiot" and "imbecile." The attitudes being measured in this study, however, would appear to fall at the comparative, stereotypic Level in Guttman's (1959) paradigm and the other Levels of Guttman's attitude universe (see Tables 2-5 in Chapter III) were not being assessed.

None of the other studies encountered attempted to comprehensively compare as many different groups as did Greenbaum and Wang (1965). Belinkoff (1960) undertook a comprehensive pilot study by observing the responses of more than 900 respondents in medical clinics, schools, social agencies, parent organizations, and selected individuals to an inquiry for subjects to attend special classes for the

mentally retarded. Though the investigation lacked a conceptual framework, the author found the responses considerably patterned.

The remaining studies to be reviewed do not readily lend themselves to systematic organization by topics. The reviews in the first two sections were selected on the basis of the groups sampled for this study (teachers, special education personnel, and parents). The four sections that follow are optional and were included for those interested. The review on employer attitudes was a result of the expectation that resources and time would have been sufficient to allow a sampling of this group, too. The literature on self-attitudes, peer and community attitudes, and attitude change extends beyond the scope of this study somewhat, but it is consistent with the foregoing sections and pertinent to understanding the condition of the retarded with a perusal of a greater array of attitudes.

#### Attitudes of Teachers and Special Education Personnel

Three studies were found which at first glance appeared pertinent to the heading of this section. On further investigation, however, two of these (Harris, 1956; Harris, 1958) were exploratory single case studies of limited value, while a third (Conner & Goldberg, 1960) consisted of a superficial analysis of a survey with less than a 50 per cent response rate.

Semmel (1959) explored the relationship between the attitudes of 40 regular and 27 special education teachers

and the knowledge variable. Semmel employed a 48 item questionnaire, 32 of which were factual and sixteen of which measured attitudes toward retardation. Analysis of mean scores revealed that the special teachers had significantly greater knowledge concerning mental deficiency than did regular grade teachers; however, both groups showed an equally high positive attitude score. Semmel concluded that his research "questions the implied relationship between correct information and positive attitudes toward the retarded (p. 573)." These findings may have been confounded, however, by the fact that proportionally more women and three times as many teachers with ten or more years experience existed among his regular teacher group than in the special educator group. It is also not clear what facets or levels of attitudes were being measured.

Efron (1967) hypothesized that teachers and students in special education (including mental retardation) would differ significantly from those in general education in attitudes and factual knowledge. Some 235 subjects completed a 70 item Likert format questionnaire containing a six point agree-disagree continuum. The items represented seven conceptualized attitudinal areas as well as information about mental retardation. The results supported the author's hypothesis. Teachers of the retarded and students in this area, as compared with persons in general education and in non-educational occupations, were less authoritarian, had less inclination to segregate and institutionalize, were more

accepting of intimate contact, were more inclined to ascribe many cases of retardation to cultural impoverishment, were more hopeful about the retardate's future, and had more factual information. The author suggests that personal contact is the most important variable to change attitudes.

Polansky (1961) related responses of psychiatric technicians in a state hospital for the retarded to several psychological variables. His hypothesis that psychiatric technicians held incorrect opinions concerning mental deficiency in a proportion similar to laymen in the Winthrop and Taylor (1957) study was not supported, e.g., technicians believed to a greater extent than laymen that "the feeble-minded are readily recognizable." It was also found that female technicians had fewer misconceptions than males and appeared to be more "tender hearted." Polansky also found some support for his hypothesis that responses to the MDMS are affected not as much by exposure to education or by factual knowledge but rather by beliefs, attitudes, and emotional biases.

Babow (1969), finding a paucity of research in his area of concern, investigated the attitudes of staff members at a mental health hospital in California toward the introduction of a mental retardation program. Comprising his sample of 760 were psychiatric technicians, social workers, rehabilitation therapists, physicians, and nurses. The author conceptualized three modes of treatment--sociotherapeutic, somatherapeutic, and psychotherapeutic. He

hypothesized that followers of the first method would have favorable attitudes toward serving the mentally retarded, followers of the second unfavorable attitudes, and those subscribing to a psychotherapeutic approach would fall somewhere between. Babow further hypothesized that those indicating a favorable orientation in general toward mental retardation would score low on authoritarianism and anomie. These hypotheses were generally confirmed. An arresting pattern emerged in analysis as the data clustered into five groups along a dimension of "distance from direct patient care": those more distant from direct patient care (those in para-psychiatric services and almost half the physicians) were most favorable toward a mental retardation program; although not entirely consistent, many providing direct patient care (nurses) were most resistant to change, expressed unfavorable attitudes toward a mental retardation program and toward a sociotherapeutic approach.

Begab (1970) sampled 288 graduating students and 279 entering students from seven schools of social work to study the effects of differing educational experiences on social work students' knowledge and attitudes toward mental retardation. The author found that how rather than how much one learned was the most important factor whether information was absorbed and integrated into attitudes. Students at schools that provided field experience and contact with mental retardates showed greatest change.

Begab hypothesized the following:

1. Students with little or no experience will demonstrate moderately unfavorable attitudes and limited knowledge in the area of mental retardation.
2. Students with intimate experiences (immediate family, relatives) evidence more extreme attitudes, positive and negative, and more accuracy or distortions in their knowledge.
3. Students in low content exposure schools (in mental retardation) will show less change in knowledge and in attitudes than those in high content exposure schools.
4. Students in mental retardation field instruction placements will be more greatly influenced in their attitudes (in either direction) than those exposed only through classroom material.
5. Students with prior meaningful life experiences in retardation will not be markedly influenced by their formal educational experiences.
6. Mental retardation field instruction students will be similar to each other in their level of knowledge and attitudes.

Results supported all hypotheses except number three.

Hypotheses four and six were the most strongly supported.

Demographic variables had little bearing on student attitudes.

Begab concluded that direct contact influences attitudes toward the extremes; those with no contact at all derive their attitudes from prevailing cultural values and beliefs. Knowledge, attitudes, and client preferences (termed action tendencies by the author) do not correlate except when affective learning experiences, as in field instruction, are involved. Formal class instruction has

limited impact. Feelings are what motivate learning and behavioral change.

### Parental Attitudes

Several studies have appeared which have attempted to elicit parental attitudes through the use of interviews. Rosen (1955), for example, employed a 56 item interview schedule and content analysis to relate maternal responses to a hypothesized five phase developmental sequence of understanding and acceptance of retardation. Rosen found that, in general, the mothers' reactions conformed to the five phases: (a) awareness of the problem; (b) recognition of the problem; (c) seeking for a cause; (d) seeking for a solution; and (e) acceptance of the problem. Though limited in design, the chief value of this study was its richness of details reporting the attitudes of the mothers sampled.

Gordon and Ullman (1956) reported their impressions following eight weekly group therapy sessions with parents of mongoloid children. They found a great deal of uncertainty among the parents despite a history of medical advice and felt that the parents overestimated the importance of their children's IQ scores to the neglect of other factors that determine social adjustment. These authors described the parents as being saddled with guilt and defensiveness and noted that over-protection and inability to make realistic demands on the child were the "most commonly expressed neurotic attitudes."

Schonell and Watts (1956) interviewed the families of fifty retarded children in Brisbane, Australia. Most of the interviewees were mothers who reported favorable attitudes on the part of the fathers, siblings, relatives, and outsiders. In eight cases, however, the attitude of the father was unfavorable, in seven cases sibling attitudes were unfavorable, and in nine cases those of relatives were unfavorable. Five parents complained of unfavorable attitudes and treatment of the child by people outside the family circle. Schonell and Rorke (1960) also report some positive changes in attitudes toward retardation in the same sample after the children had been established in a day school for special training.

Stoddard (1959), in perhaps the most controlled study using the interview technique to assess parental attitudes, randomly sampled and interviewed parents of retarded children and correlated elicited attitudes with several objective measures of the child's intelligence and achievement. Stoddard found no demonstrable relationship between parental attitudes and the achievement of their severely retarded children but qualified her conclusion by stating that the lack of relationship was likely a function of inadequate instruments.

Ehlers (1964), in an exploratory study using a focused interview format and descriptive analysis, attempted to relate a number of variables to parental attitudes toward services offered their retarded children by a community



agency. Only the social class factor seemed important, i.e., lower class parents were more willing to avail themselves of community services than were middle class parents, which may or may not be a reflection of more positive attitudes as opposed to accessibility to private resources.

Mercer (1966) explored the relationship between family acceptance of retarded members returning from institutions and the nature of pre-institutionalization family crises. Families of 76 discharged retardates were matched with 76 retardates still institutionalized. The author found that the institutionalized retardates did differ significantly from those released in having been a greater "burden of care" (parental exhaustion, costs, constant supervision).

Olshansky and Schonfield (1965) interviewed 105 families (primarily parents) of graduates of special classes for the mentally retarded and found that less than one-third said they thought the graduate was mentally retarded; the remainder either perceived the special education graduate as normal or refused to classify him. The authors suggest that this did not involve a denial of reality since those who were rated normal could be better classified as "culturally deprived." The ex-student perceived as normal or who were not rated were judged to be significantly better adjusted at home, socially and vocationally, and differed on several demographic variables from those judged mentally retarded.

Meyerowitz (1967) explored parental awareness of retardation and the effects of special class placements. He interviewed parents of 120 educable young retardates who had been randomly assigned to regular and special classes upon entering school and parents of 60 normal pupils placed in regular classes. It was found that the parents of children placed in special classes manifested greater awareness of retardation even though 55 per cent of this group were still unaware of their child's retardation and more than 25 per cent of these same parents persisted in responding (over a two year period) that their child was better than other children in academic skills; however, parents in this group also showed a consistent but statistically less than significant tendency to derogate and devalue their children more than parents whose children were placed in regular classes. The author concludes that parents tend to minimize the school as a significant reference for the evaluation of the child.

Caldwell and Guze (1960) employed psychiatric interviews in addition to an impressive battery of instruments, including three attitude scales, to investigate adjustment and attitudes of mothers and siblings of retardates who were institutionalized as compared to retardates living at home. Despite the relatively large number of dependent variables (eight in all), no significant differences were found between the two groups.

Thurston (1959) reported on the development of a new sentence completion instrument to assess parental attitudes toward their handicapped children and later (Thurston, 1960) described results of a study involving the attitudes and emotional reactions of parents of institutionalized cerebral palsied, retarded patients. Thurston's sample was large (213) but constituted only a one-third return of his original target population. He categorized the responses into eight categories and concluded that as a group the parents appeared hostile, suspicious, and generally uneasy and went through a long "period of mourning."

Condell (1966) used a modified version of Thurston's Sentence Completion Form to investigate the attitudes of parents of mental retardates in rural Minnesota toward mental retardation and toward an agency and its staff dealing with mentally retarded children. Less than 50 per cent of the parents contacted completed the form and the author concluded that parental attitudes were not uniform. Moreover, a discrepancy between professional goals and parental needs was indicated.

Kenney (1967), in a well designed study, employed measures of authoritarianism and ego development (defined on a concrete-abstract thinking basis) with four groups of ten mothers who were matched on a total of eleven variables: (a) mothers who had a retarded, adjusted child; (b) mothers who had a retarded, maladjusted child; (c) mothers with a normal IQ, adjusted child; and (d) mothers with a normal IQ,

maladjusted child. It was found that mothers of adjusted children, regardless of IQ, were less authoritarian in child rearing attitudes than mothers of maladjusted children. The hypothesis that mothers of retardates would be more authoritarian than mothers of normals was not supported. Level of the mothers' ego development was related to adjustment of the child with the retarded group only.

Ricci (1970) hypothesized that the mothers of retarded and emotionally disturbed children would be more authoritarian than would the mothers of normal IQ children. Like Kenney's study, this hypothesis was not supported. The most authoritarian attitudes were shown by the mothers of normal children, while the mothers of the emotionally disturbed were the least authoritarian. Ricci plotted the attitudes of the three groups of mothers along two orthogonal dimensions; authoritarian-autonomous and warm-cold. The resulting quadrants were labeled: over-protective, punitive, over-indulgent, and rejecting. The attitudes of mothers of the retarded clustered in the rejecting quadrant and were the coldest among the three groups of mothers. The author found, moreover, that mothers of the retarded, as well as the emotionally disturbed, were more inconsistent in their child rearing attitudes than were mothers of normal children.

Barclay and Vaught (1964) used a rating scale with a group of mothers of non-institutionalized cerebral palsied children and found that the mothers of cerebral palsied

children whose intellectual potential would classify them as mentally retarded typically overestimated their children's potential for future development.

Worchel and Worchel (1961) had a group of middle class parents of retarded children rate these children on 38 traits of adjustment and values. Ratings were also obtained from this group for their own normal children, other children, and their conception of an ideal child. It was found that the retarded child was rated significantly less favorably on personality traits than the normal child. The distribution of the ratings on the retarded children was almost bimodal, indicating the tendency of parents to rate them on either extreme of the scale, whereas that for the normal children yielded the typical bell shaped curve. Parental ratings of their retarded children, interestingly, did not differ significantly from their ratings of children other than their own normal children. It was also found, in line with the above, that the mean discrepancy between the ratings on the retarded and ideal child was significantly higher than the mean discrepancy between the normal and ideal child.

Zuk (1959) has demonstrated the importance of the religious factor in parental acceptance of the retarded child. Zuk divided 76 per cent of mentally retarded children, on the basis of evaluation of case histories, into 30 accepting and 40 non-accepting parents and compared them via Chi-square according to religious preference. Zuk found a significant

relationship between the mother's religious background and her acceptance of the child. Catholics were far more accepting than non-Catholics. Of 39 Catholics, 25 were accepting, 14 were not; of 28 Protestants, 5 were accepting, 23 were not; and of 9 Jews, none were classified as accepting. It was also found that the age of the child was an important factor in acceptance--generally, the younger the child the more likely he was to be accepted.

Peck and Stephens (1960) used a variety of observational and rating techniques on a sample of ten retarded children and their parents in an attempt to assess the effect of parental attitudes upon their children. Their findings indicate the importance of the father's attitude in the home: a .83 correlation was found between the father's acceptance or rejection of his mentally defective child and the amount of acceptance or rejection observed in the home situation. Correlation involving mothers was only .09 and not statistically significant.

Corroborating the last cited study, Levine (1966) also revealed the impact of the father's attitude. Interviewers rated parental responses regarding their male and female retarded children on a social competency scale and found significantly more agreement among the parents of a child when the child was female. The children were all trainable retardates and the differences were attributed to the father's tendency to devalue the male retardate more than the female retardate.

Finally in the last study to be cited in this area, Dingman, Eyman, and Windle (1963) gave the Parental Attitude Research Instrument (PARI) to eight groups to compare attitudes on child-rearing practices: (a) 60 mothers of normal children; (b) 48 mothers of severely retarded children; (c) 48 mothers of mildly retarded children; (d) 45 foster mothers who cared for selected retardates; (e) 11 supervising social workers; (f) 148 psychological technicians in a state hospital; (g) 38 clerical and other employees in the same hospital; and (h) social worker responses predicted for foster mothers.

Analysis revealed a lack of clear differentiation between mothers of the severely retarded and the mildly retarded, with the exception that the latter were generally more protective, a finding that also characterized the foster mothers. These latter two groups generally had less education and were also of lower social status. Social workers stood out as being the most permissive while hospital employees gave responses similar to the social workers regardless of their position. The usefulness of the PARI, however, has been questioned by Doll and Darley (1960) in the area of speech and hearing disorders and contradictory findings using this instrument have been noted in the field of psychopathology, i.e., Horowitz and Lovell (1960) and Zuckerman, Oltena and Monashkin (1958).

### Employer Attitudes

Only three systematic studies were found in the recent literature which were concerned with the attitudes of employers toward the mentally retarded although several writers (DiMichael, 1953; Blatt, 1961; Allan, 1962; Salkind, 1962) have expressed the opinion that the major deterrent to successful employment of the retarded is the generally negative attitude of employers.

Cohen (1963) related the scores of 177 employers (within a 30 mile radius of a training and research center on retardation) on a scale designed to measure attitudes toward hiring the retarded to the amount of education of the employer, the amount of contact with retardates, and a check list measuring knowledge about retardation. Cohen found, somewhat surprisingly, a significant negative relationship between attitudes and reported educational level. This was in spite of a significant positive relationship found between educational level and a realistic conception of retardation. The contact variable was not significant and Cohen concluded that employer attitudes in his study were relatively independent of knowledge.

Hartlage (1965) reports findings which question those of Cohen (1963) just cited. Rather than a significant negative relationship as Cohen reported, Hartlage found no relationship between the educational level of 120 employers (out of 283 contacted) and their receptivity toward hiring the retarded. In addition, Hartlage found that the size



and type of business or industry was significant; with large manufacturing industries being the most receptive and service industries the least. Hartlage's findings were based on a fifteen item questionnaire.

Phelps (1965) cited the results of a study which completely contradict Cohen's (1963) findings while substantially agreeing with those of Hartlage (1965). Phelps employed a 54 item weighted questionnaire containing both factual and opinion statements and compared the responses of 132 service employers (of 257 contacted). Phelps, in contrast to Cohen, found a positive relationship between educational level of personnel managers and attitude responses toward the mentally retarded. As did Hartlage, Phelps also found a positive relationship between the size of the organization and attitudes. A positive relationship was also found between attitudes and length of time of employment. Differences were found too between types of service industries, with hospital and motel personnel managers being more favorable to hiring retardates than hotel, laundry-dry cleaner, restaurant, and nursing home personnel managers.

### Self Attitudes

A few studies have appeared which were concerned with self attitudes among the retarded. For example, in attempting to develop a system of personality assessment based on the institutionalized female retardate's conception of herself and her world, Guthrie, Butler, and Gorlow

(1961) found a high positive correlation between how the retardate saw herself and how she believed others perceived her. The authors developed a useful multidimensional scheme on which to construct an instrument.

The same authors in 1963 compared the self-attitudes between institutionalized and non-institutionalized female retardates. They found that institutionalized retardates had particularly negative self-attitudes and perceived others to have unfavorable attitudes toward them; those who were selected from special classes in a public school system had an exaggerated favorable view of themselves. In the subsequent study, Gorlow, Butler, and Guthrie (1963) found that retardates who were separated from their parents at an early age expressed more negative self-attitudes. The authors suggested that these results might be due to the influence of family stability during the early years of the retardate--implying that unstable families would be prone to institutionalize their retarded offspring. The authors also observed small but significant relationships between self-acceptance and intelligence, school achievement, success in the institutional training program, and success on parole.

In a 1964 study, Guthrie, Butler, Gorlow and White, again using institutionalized female retardates, found that the self attitudes were often defensive and designed more to protect the self from painful rejection than to gain approval through achievement. Kniss, Butler, Gorlow, and

Guthrie (1962), with a similar sample, found no relationship between ideal self attitudes, as determined by a Q-sort, and age, IQ, and length of institutionalization. Similarly, McAfee and Cleland (1965) found no differences between self-ideal and self-discrepancy between adjusted and maladjusted educable males.

McCoy (1963) found that a sample of educable mentally retarded underachievers, when compared to a matched sample of retarded achievers, had a significantly lower degree of realistic self confidence as well as a lower and less realistic level of aspiration. There was also a non-significant trend for achievers to have a higher degree of perceived parental acceptance and intrinsic, as opposed to extrinsic, self evaluation.

Snyder (1966), in a well designed study, correlated academic achievement with measures of personality, self attitudes, and anxiety in a sample of mildly retarded children obtained from a variety of settings and found significant differences in the expected direction between high and low achievers on all three measures. Snyder also noted that even the high achievers generally showed poorer adjustment than normal IQ children.

Meyerowitz (1962) compared groups of educable first grade retardates who had been randomly assigned to regular and special classes to a normal criterion group on an index of self derogation especially developed for his research. Meyerowitz found that the retardates as a group were more

derogatory of themselves than the normal children. Contrary to expectation, he also found that the retardates assigned to regular classes were less derogatory of themselves than those assigned to special classes--perhaps because their age had not yet permitted significant failure experiences thought to result from regular class placement.

Laing and Chazan (1966) used a sociometric technique to study group structure in a sample of classrooms for the retarded in South Wales. The authors concluded that their results did not agree with the results of an earlier study by Moreno (1934) who found that the organization of groups in which mental retarded children prevail revealed numerous unreciprocated choices, a low number of mutual pairs, and many isolates.

Mayer (1967) also used a sociometric technique to correlate self-concepts with sociometric status (in special junior high school classes) and socioeconomic status (in the community). Hypotheses that there would be significant positive correlations were not supported.

#### Peer and Community Attitudes

Miller (1956) had earlier used the sociometric procedure to compare socioempathic abilities (awareness of one's own and others' status) and social status among mentally retarded, normal, and superior upper elementary children in regular classrooms. It was found that the retardates proportioned their choices across groups equally while the superior and normal children generally favored

the superior children most and the retardates least. Socio-empathic ability followed the expected pattern with the superior children showing more ability than normals who in turn showed more ability than the retardates.

Smith and Hurst (1961) found a significant relationship between motor ability and peer acceptance in a group of trainable and educable retardates attending a day school. Clark (1964a) reports a similar finding using a large sample of normal fifth grade boys and girls and their attitudes toward a "special" group of educable mentally retarded in the same school. Employing an interview and content analysis technique, Clark found a fluid boundary between the retarded-normal groups and, while the retarded were at times evaluated unfavorably, the normals reacted more to their appearance and athletic ability than to their intellectual or academic ability.

Clark (1964b) observed 214 normal children to ascertain how they perceived and described educably mentally retarded children in adjacent classes. He found they did not identify photographs of retardates with their special class status in an elementary school. An attempt was then made to more directly ascertain perceptions of the special class and it was found that only 10.9 per cent of the children's remarks about the mentally retarded children were derogatory. Over 90 per cent of the children described special class members in terms of deviancy but only 5.4 per cent correctly described this deviancy as

mental retardation. He concluded that the overall judgment of the educable mentally retarded were more favorable than unfavorable and that the rejection of the mentally retarded decreased when they had the opportunity to participate in classes that met their individual needs. These results are in seeming contradiction to those of Johnson and Ferreira (1958) who reported that interviews with retardates in special classes revealed that 70 per cent had been called derogatory names because of their special class status.

Renz (1969) sought to discover whether normal adolescents would perceive and describe educable mentally retarded adolescents on the same continuum used for normal adolescents. He asked a randomly selected normal group of seventh graders to identify and talk about two photographs drawn from two different piles--one consisting of normal students and the other of educable mental retardates. Renz found that normal adolescents used the same variables to describe the retardates that they used to describe other normal adolescents in the school community. The educable mentally retarded were not rejected with greater frequency than their normal grademates.

Jaffe (1966) demonstrated the importance of stereotypes which become attached to the concept of mental retardation. In a well designed study, Jaffe employed two semantic differential scales, (a) one tapping the Evaluative factor and the second, (b) measuring a combination of

Activity, Potency, and an Independent-Suggestible factor. In addition, (c) an adjective checklist, (d) the Social Distance Scale, (e) a vocabulary test, and (f) demographic data (including amount of contact with the retarded) were also used to investigate attitude relationships among 240 high school seniors. Half the group responded to a retarded sketch person and half responded to a non-retarded sketch person as well as to the label "mentally retarded." No significant differences were found on instruments a, c, and d between the retarded and non-retarded sketch persons; however, the retarded sketch person was significantly more favorably evaluated than the label "mentally retarded" on the Evaluative factor. Instrument b showed a significant difference between the retarded and non-retarded sketches while only instrument c showed a difference between those who had and those who had not had contact with retardates. Jaffe interpreted this finding as suggesting that contact may be related to a more cognitive or descriptive dimension of attitudes as opposed to actual feelings.

Indices of the students' intelligence and socio-economic status were not related to any of the attitude measures but it was found that girls attributed a greater number of favorable attitudes to the retarded sketch person than did boys. Jaffe's study represents one of the better efforts to relate demographic indices and the contact factor to attitudinal measures and to move beyond the stereotypic level.

Jaffe (1967) later used a similar design to assess attitudes of high school seniors toward an identical sketch person identified as mentally retarded to one group and as "an amputee" and "emotionally disturbed" to two others. Another group of students responded to the labels "amputee," "mentally retarded," and "former mental patient" as well as to the sketch person not identified as disabled. The instrument used was the semantic differential and, in each case, the disabled sketch person was more favorably evaluated than the corresponding label. Of the three terms, "mentally retarded" was the least favorably evaluated.

Badt (1957) reported results of a study in which the attitudes of university students in education and other curricula were obtained toward exceptional children as a group as well as toward separate categories of exceptional children. Analysis was descriptive only, but generally the attitudes of the students seemed to be most unfavorable to mentally retarded and emotionally disturbed children.

In a study purporting to deal with attitudes but actually concerned primarily with possession of factual information, Mahoney and Pangrac (1960) found a difference between freshmen and senior college students on a twelve item true-false test. For the latter group, there were significant correlations between test scores and number of relevant courses (dealing with mental deficiency) completed and grade point average.



In a similar design, Winthrop and Taylor (1957) found significant differences between men and women on two items of a nine item dichotomous response (yes-no) test and concluded that a great deal of misinformation existed among the adult laymen in their sample.

Anders and Dayan (1967) studied attendants in an institution for the mentally retarded. Their purpose was to relate ethnic variables to child-rearing beliefs and attitudes measured by a 45 item questionnaire. Only the religious factor proved significant, with Catholics showing a decidedly more permissive attitude than Protestants although neither group had strongly permissive attitudes.

Following up on these results, Anders (1968) conducted one of the first cross-cultural (but not cross-national) attitudinal studies of the area of mental retardation. Anders compared parental authoritative-permissive attitudes among Anglo-Saxon Protestants, Negro Protestants, and French Catholics in Louisiana. The author reported no clear-cut differences among the three ethnic groups but did find other demographic variables--education, income, and residence--to be important.

Meyers, Sitkei, and Watts (1966) used a five question interview to assess attitudes among two community groups toward the educable and trainable mentally retarded and their education. The groups were (a) a random sample of a city of 80,000 near Los Angeles (N-188); and (b) 24 households where a child was enrolled in a special class

for the mentally retarded. The study was summarized as follows:

(1) "Special class" families are more willing to keep EMR and TMR children at home rather than send them away. Non-Caucasians in the special sample families are especially accepting. (2) The special sample families tend to be more supportive of public school provisions for either the EMR and RMR. (3) Respondents in a religious group generally calling for orthodoxy of belief were less accepting than those whose identification with religion was of a liberal or casual sort. (4) The more mobile families with retarded children favor keeping the child at home rather than in an institution. (5) In general, there is less acceptance of public school responsibility for the trainable than for the educable retarded child. (6) Distressing percentages of respondents in both samples appear to misunderstand the potential of the EMR child, many believing they should be institutionalized, should not go to school, should not have provisions, etc. That result together with the results generally, bespeak a still considerable public misunderstanding of the potentialities of the educable, and of the possibilities for decent community living for the trainable (p. 83).

Heater (1967) used an attitude scale which measured intensity as well as positiveness to assess attitudes toward the mentally retarded of 405 clergymen of various denominations (Jewish, Roman Catholic, Methodist, Christian Reformed, Reformed Church of America and the Missouri and Wisconsin Synods of the Lutheran Church) and to relate these to a number of variables obtained through other instruments. It was found that clergymen with more frequent contact with mentally retarded persons tended to feel more strongly about their attitudes toward the mentally retarded regardless of whether the attitudes were favorable or unfavorable--a finding at variance with the previously noted suggestion of Jaffe (1966) that contact seems to be related to a more cognitive as opposed to emotional dimension of attitude.

Clergymen in Heater's study who placed more value on doing things for other people and being generous tended to show more favorable attitudes toward the mentally retarded. Sources of the variance of attitudes were found to be primarily within denominational groups for there was no evidence of differences between any of the groups and the rural-urban areas studies in respect to attitudes. It was found, however, that high scores on a measure of conformity tended to be made by clergymen who held unfavorable attitudes toward the mentally retarded. Heater's study represents one of the few in this area that attempts to relate general value orientation to attitudes toward the mentally retarded.

#### Attitude Change

Only a few studies have apparently appeared in the literature which purport to be concerned with changes in attitude toward mental retardation. Four of these studies (Cleland & Chambers, 1959; Cleland & Cochrane, 1961; Kimbrell & Luckey, 1964; Sellin & Mulchahay, 1965) have employed the same basic methodology, i.e., testing of various groups (mainly high school and college students) before and after tours of institutions for the mentally retarded. In general, the results of these studies have been contradictory and inconclusive. For example, the control group in one study (Cleland & Cochrane, 1961) showed the greatest "attitudinal shift" even though this group was not subjected to the independent variable. It may be said,

in brief, that (a) attitudes and information seem to be confused in these studies; and (b) the changes were in a positive direction in some cases and in a negative direction in others.

Appel, Williams, and Fishell (1964) attempted to assess attitude changes in 21 mothers of retarded children two years after group counseling. Scores on a sentence completion form were compared at that time with pre-counseling scores. The parents became concerned less with their own feelings and more with the needs of their retarded children; however, they found it just as difficult to accept the disability as before. A control group might have helped to determine whether the reported changes were really effected as a result of counseling, as the authors contend, or were merely a function of the passage of time.

Bitter (1963) in a similar but somewhat better controlled study administered a four instrument battery to 16 parents before and after a parent education program involving group discussions and consisting of seven monthly sessions. Attitudes toward child-rearing and mental retardation in general as well as measures of the characteristics of their own trainable children and knowledge regarding mental retardation were obtained. Parents as a group demonstrated significant changes in a positive direction in democratic attitudes toward child-rearing on one of the scales; however, these parents also made significantly more errors on the knowledge test after the educational sessions.

Some differences were found between parents who attended one or two sessions and those attending all seven on some of the concepts of the semantic differential used to measure attitudes toward mental retardation--all in a positive direction. Whether these changes were entirely a function of the group sessions or partly the result of other factors remains a moot question.

Chennault (1967) found significant improvement in peer acceptance and self-perceived peer acceptance for 64 unpopular retarded children in 16 special classes after they had presented a dramatic skit. This study suggests that organizing special group activities for the retarded may be a useful means to improve peer and self attitudes.

Harris (1967) reported the use of dramatizations, but dramatizations involving principles from Eric Berne's transactional analysis. The director of a center for the mentally retarded met weekly with 30 residents who were taught to recognize "Parental, Adult, and Child" behaviors. They were taught to "turn off" the "Child". (who compares) and the accusing "Parent." They were encouraged to accept their limitations, but at the same time to consider what they could do. They were instructed to reiterate, "I'm OK, you're OK." The author points out that this treatment was not part of a controlled experiment; however, he attests that the treatment did produce noticeably more confident and better self-controlled residents.

## Conclusion

It is of interest to note that none of the studies reviewed have employed an attitude scale constructed on the basis of the structural facet theory proposed by Guttman (1959). Thus it is entirely unclear just what attitudinal Levels or sub-universe in the Guttman model were being measured in most, if not all, of these studies, although the impression here is that most of the scales used would likely fall at the more abstract and stereotypic Levels in Guttman's paradigm (see Tables 2 and 3 in Chapter III). It is also likely that at least some of them were measuring mixtures of Guttman's facets, some were measuring facets not included by Guttman in his model, while some were not measuring attitudes at all but fall more in the realm of achievement tests since factual knowledge only was being assessed. Lack of control over facets being measured as well as loose definitions of attitudes will likely continue to contribute to results which are not comparable, inconsistent, and, at times, contradictory. Much the same can be said, of course, with regard to lack of control over subject variables, but this problem appears to be more easily correctible, providing that instrumentation is adequate and comparable.

It is also of note that not one study was encountered in the review of literature since 1956 which attempted to relate findings cross-nationally. In fact, only three studies (Laing & Chazan, 1966; Schonell & Watts, 1956;

Schonell & Rorke, 1960) were found in the American literature which were conducted in the countries other than the United States. The references indicate studies (Harrelson, 1969; Morin, 1969; Vurdelja, 1970) which have since been conducted using the present ABS-MR method.

Although no clear consensus existed in the review of the literature, it does indicate that numerous variables seem to be related to attitudes toward mental retardation, i.e., sex, education, social class, religion, occupation, amount of knowledge, general value orientation, and contact. Few of the studies, however, attempted to systematically control more than one or two of these variables or to relate verbal attitudes to actual behavior. It seems clear that research is needed which attempts to systematically control these variables across various groups and cultures if fruitful and generalizable findings are to ensue.

## CHAPTER III

### INSTRUMENTATION AND VARIABLES<sup>1</sup>

The construction of the ABS-MR scale (Appendix C) was guided by a facet design which makes it possible to construct items by a systematic a priori design instead of by the method of intuition or by the use of judges. Guttman's facet theory (Guttman, 1959, 1961) specifies that the attitude universe represented by the item content can be sub-structured into components which are systematically related according to the number of identical conceptual elements they hold in common. The sub-structuring of an attitude universe into components or elements facilitates a sampling of items within each of the derived components, and also enables the prediction of relationships between various components of the attitude universe. This should also provide a set of clearly defined component areas for cross-national, cross-cultural, and/or sub-cultural comparisons.

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<sup>1</sup>This chapter is essentially the same as that of Harrelson (1969) and is also directly related to Morin (1969) and Vurdelja (1970).



Facet Theory and the ABS-MR  
Scale (Criterion)

Succinctly stated, what is sought by facet design and analysis is to be able to construct the content of a scale by a semantic, logical, a priori technique and to be able to predict the order or structure which would result from the empirical data. What would happen then would be the reverse of what in reality factor analysis accomplishes. Factor analysis tries to make sense out of what already has been done by a mathematical process of forming correlational clusters and then naming them, i.e., calling them factors. As opposed to this approach, facet design, in essence, names the facets before one begins.

Guttman's Four Level Theory

In an analysis of research on racial attitudes by Bastide and van den Berghe (1957), Guttman proposed that in respect to intergroup attitudes and behavior there are three necessary facets which may be combined according to definite procedures to determine the semantic component structure of four important levels of the attitude universe. Table 2 presents these facets.

One element from each and every facet must be represented in any given statement, and these statements can be grouped into profiles of the attitude universe by multiplication of the facets  $A \times B \times C$ , yielding a  $2 \times 2 \times 2$  combination of elements or eight semantic profiles in all, i.e., (1)  $a_1b_1c_1$ , (2)  $a_1b_1c_2$ , . . . (8)  $a_2b_2c_2$ . It can be

TABLE 2.--Basic facets used to determine component structure of an attitude universe.

(A)		(B)	(C)
Subject's Behavior		Referent	Referent's Intergroup Behavior
a <sub>1</sub>	belief	b <sub>1</sub> subject's group	c <sub>1</sub> comparative
a <sub>2</sub>	overt action	b <sub>2</sub> subject himself	c <sub>2</sub> interactive

seen that combinations 1 and 2 have two elements in common (a<sub>1</sub>b<sub>1</sub>) and one different (c<sub>2</sub> and c<sub>2</sub>), whereas profiles 1 and 8 have no elements in common.

Using the Bastide and van den Berghe (1957) research as a basis, Guttman (1959) was able to facetize the semantic structure of their attitude items into the four attitudinal Levels as shown in Table 3. Guttman reasoned that if an attitude item can be distinguished semantically by the three facets ABC outlined in Table 3, then an individual item could have one, two, or three subscript "2" elements for a total of four attitude Levels. Logically, if the elements are correctly ordered within facets, and if the facets are correctly ordered with respect to each other, a semantic analysis of attitude items will reveal  $n + 1$  types or Levels of attitude items. While a total of eight combinations are possible on the four Levels (one each on Levels 1 and 4 and three each on Levels 2 and 3) only the four combinations shown in Table 3 were studied by Bastide and van den Berghe (1957).

TABLE 3.--Facet profiles and descriptive labels of attitude Levels.

Level	Profile	Descriptive Label
1	$a_1b_1c_1$	Stereotype
2	$a_1b_1c_2$	Norm
3	$a_1b_2c_2$	Hypothetical Interaction
4	$a_2b_2c_2$	Personal Interaction

The model in Table 3 depicts the attitudinal Levels and the descriptive labels for each Level defined by Guttman (1959). An attitude item corresponding to Level 1 would deal with the belief of the subject ( $a_1$ ) that his group ( $b_1$ ) compared itself ( $c_1$ ) favorably or unfavorably with the attitude object in question, in this case members of a different racial group. Similarly, an item corresponding to Level 4 would deal with the subject's own ( $a_2$ ) reported behavior ( $b_2$ ) in interacting ( $c_2$ ) with the attitude object.

A common meaning for the orderings was suggested by Guttman, i.e., they show in each case a progression from a weak to a strong form of behavior of the subject toward the attitude object. That is, the more subscript "2" elements a set contains, the greater the strength of the attitude or behavior.

The semantic structure resulting from facet analysis of an attitude universe provides a theoretical basis for predicting the order of the empirical intercorrelation matrix

of Guttman's four Levels: if items are written to correspond to each of the four Levels, the Levels closest to each other should be more similar and thus should correlate more highly with each other than with more distant levels.

One cannot propose to predict the exact size of each correlation coefficient from knowledge only of the semantics of universe ABC, but we do propose to predict a pattern or structure for relative sizes of the statistical coefficients from purely semantic considerations (Guttman, 1959, p. 324).

This prediction was stated by Guttman (1959) as the contiguity hypothesis which states that subuniverses or attitude Levels closer to each other in the semantic scale of their definitions will also be closer statistically. In other words, the intercorrelations should reveal an ordering such that the maximum predictability of each Level is attainable from its immediate neighbor or neighbors alone.

Stated differently, the resulting correlation matrix should reveal what Guttman (1966) has termed a "simplex" ordering. A simplex exhibits the characteristics of (a) ascending correlations starting from the zero point (where the two coordinates meet) to the end points of either axis, and (b) closer correlations between adjacent Levels than correlations separated by one or more Levels. Consequently, Level 1 would correlate higher with Level 2 than it would with Level 3 but higher with Level 3 than with Level 4; Level 2 would correlate higher with Levels 1 and 3 than with Level 4 and so forth. An example of a

hypothetical matrix of Level by Level correlations illustrating the characteristics of a perfect simplex is presented in Table 4. When Guttman (1959) rearranged the data of Bastide and van den Berghe (1957) according to the semantic structural considerations of facet theory, this predicted simplex relationship was essentially obtained, i.e., there was only one reversal in the predicted structure.

TABLE 4.--Hypothetical matrix of Level-by-Level correlations illustrating simplex characteristics.

Level	1	2	3	4
1	---			
2	.60	---		
3	.50	.60	---	
4	.40	.50	.60	---

#### Jordan's Six Level Adaptation

Guttman's (1959) paradigm of facet design and analysis for attitude items allows for three facets and hence four Levels of attitudes. Theorizing that there might be other pertinent facets, but accepting those identified by Guttman as appropriate, Jordan (1968) expanded facet analysis for attitude items dealing with specified groups to include five facets and hence six Levels. This expanded and more inclusive set of facets and their elements is shown in Table 5.

TABLE 5.--Comparison of Guttman and Jordan facet designations.

Designation	Facets <sup>a</sup> in Jordan Adaptation				
	A	B	C	D	E
Jordan	Referent	Referent behavior	Actor	Actor's intergroup behavior	Domain of actor's behavior
	a <sub>1</sub> others a <sub>2</sub> self (I)	b <sub>1</sub> belief b <sub>2</sub> experience (overt behavior)	c <sub>1</sub> others c <sub>2</sub> self (mine/my)	d <sub>1</sub> comparison d <sub>2</sub> interaction	e <sub>1</sub> hypothetical e <sub>2</sub> operational
Guttman	---	Subject's behavior	Referent	Referent's intergroup behavior	---
	---	b <sub>1</sub> belief b <sub>2</sub> overt action	c <sub>1</sub> subject's group c <sub>2</sub> subject himself	d <sub>1</sub> comparative d <sub>2</sub> interactive	---

<sup>a</sup>If the five Jordan facets are expressed as follows the combinations of Table 29 (Appendix A) are semantically expressed in the definitional statements of Table 7:

Facet A: o or i

Facet D: c or i

Facet B: b or e

Facet E: h or p

Facet C: o or m

Joint struction<sup>1</sup> in this model is operationally defined as the ordered sets of the five facets of Table 5 from low to high across all five facets simultaneously (Jordan, 1968). It is that part of the semantic structure of attitude items which can be determined independently of item content. In other words, joint struction defines the Level or strength of attitude being measured in the subject-object relationship.

It will be noted that the multiplication of facets ABCDE yields a possible 32 combinations of elements; not all combinations are logical because of semantic considerations, however, and the selection of a "best" set of components from the 32 possible was still partly a matter of judgment at the time of the construction of the ABS-MR scale. Maierle (1969) later extended research in this area by providing a set of logical rules for the selection of combinations and found that twelve of the possible 32 combinations (Table 29, Appendix A) were semantically consistent. In constructing the ABS-MR, however, six of these element combinations or profiles seemed particularly fruitful and these six combinations represent the six Levels of attitude strength measured by the ABS-MR and shown in Table 6. Table 6 shows Levels of attitude strength, the element composition of the profiles, and a descriptive term for each profile or Level used in the ABS-MR. Each

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<sup>1</sup>In previous theses, the terms conjoint and dis-joint were used instead of joint and lateral.

TABLE 6.--Joint Level, profile composition, and labels for six types of attitude structure<sup>a</sup> measured by the ABS-MR.

Subscale Type-Level	Profile by Notational <sup>c</sup> System in Table 29	Profile by Definitional <sup>b</sup> System in Table 7	Attitude Level Descriptive Term
1	o b o c h	a <sub>1</sub> b <sub>1</sub> c <sub>1</sub> d <sub>1</sub> e <sub>1</sub>	Societal stereotype
2	o b o i h	a <sub>1</sub> b <sub>1</sub> c <sub>1</sub> d <sub>2</sub> e <sub>1</sub>	Societal norm
3	i b o i h	a <sub>2</sub> b <sub>1</sub> c <sub>1</sub> d <sub>2</sub> e <sub>1</sub>	Personal moral evaluation
4	i b m i h	a <sub>2</sub> b <sub>1</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub>	Personal hypothetical action
5	i e m i h	a <sub>2</sub> b <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub>	Personal feeling
6	i e m i p	a <sub>2</sub> b <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>2</sub>	Personal action

<sup>a</sup>Based on facets of Table 5.

<sup>b</sup>See Table 7 for definitional statements.

<sup>c</sup>See Table 29 (Appendix A) for facets and subscript profiles.



successive Level changes on only one facet so that the profiles have a semantic simplex ordering from least complex, with complete absence of subscript "2" elements, to most complex where all elements are subscript "2" elements.

Table 7 incorporates the data presented in Table 5 and 6 and shows how the semantic structure of the six attitudinal Levels of the ABS-MR is specified by the element composition or facet profile of each Level. All items in the six sub-scales of the ABS-MR (Appendix C) evolved directly from the facet design depicted in Table 7 and correspond to the definitional statements for each Level illustrated in Table 7. In other words, the introductory statements for all items on the first Level of the ABS-MR (exclusive of those items measuring attitude intensity) correspond to the definitional statement for Level 1 in Table 7: Societal Stereotypes; all item stems on the second Level 2 in Table 7, and so forth down through Level 6.

Up to this point in the discussion the focus has been on what has been defined by Jordan (1968) as "joint struction," which refers to the differences between scale Levels of the ABS-MR on facets A through E. The counterpart to joint struction, which specifies attitude Level, is "lateral struction," which specifies and differentiates the content of the items of the ABS-MR through five additional facets specifying item content, or lateral struction. The relationship between joint and lateral struction on the

TABLE 7.--Five-facet six-level system of attitude verbalizations:<sup>a</sup> Levels; facet profiles, and definitional statements for twelve combinations.

Level	Facet Profile	No. in Table 29	No. <sup>b</sup>	Definitional Statement <sup>c</sup>	Descriptive Name <sup>d</sup>
1	o b o c h a <sub>1</sub> b <sub>1</sub> c <sub>1</sub> d <sub>1</sub> e <sub>1</sub>	1	0	Others believe others' comparisons (i.e., about the mentally retarded) hypothetically	** Societal stereotype (group assigned group status)
2	i b o c h o b o i h a <sub>1</sub> b <sub>1</sub> c <sub>1</sub> d <sub>2</sub> e <sub>1</sub> o b m c h	3 2	1	I believe others' comparisons hypothetically Others believe others' interactions hypothetically Others believe my comparisons hypothetically	Personally-assigned group status Societal norm Group-assigned personal status
3	i b o i h a <sub>2</sub> b <sub>1</sub> c <sub>1</sub> d <sub>2</sub> e <sub>1</sub> i b m c h o b m i h o e o i h	4 7 6 9	2	I believe others interactions hypothetically I believe my comparisons hypothetically Others believe my interactions hypothetically Others experience others interactions hypothetically	** Personal moral evaluation (perceived values) Self-concept (personally assigned personal status) Proclaimed laws (group expectations) Group identity (actual group feelings)
4	i b m i h a <sub>2</sub> b <sub>1</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub> a e o i p	8 11	3	I believe my interactions hypothetically Others experience others comparisons hypothetically	** Personal hypothetical action Actual group action
5	i e m i h a <sub>2</sub> b <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub>	10	4	I experience my interactions (feelings) hypothetically	** Personal feeling
6	i e m i p a <sub>2</sub> b <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>2</sub>	12	5	I experience my interactions (overt behavior) operationally	** Personal action

\*\*Combinations used in the ABS-MR

<sup>a</sup>Cf. Tables 5 and 6.

<sup>b</sup>No.--number of strong elements in level.

<sup>c</sup>Words in parentheses are part of redundant but consistent statements.

<sup>d</sup>Alternate names in parentheses indicate relationships of various Level members.

ABS-MR are shown in Table 8 in the form of a mapping sentence. Facets K and L in Table 8 also illustrate the scales "response mode structure," i.e., the degree of favorableness and intensity with which the subject responds to the items structured by facets A through J. Thus, every response of every subject corresponds to a combination of elements in facets K and L for every attitude item, which in turn corresponds to a combination of elements for each and every facet A through J--with the exception of those items on Level 5.

At the time of the construction of the ABS-MR, the ordering system had not been as fully developed for lateral structure as it had for joint structure. Consequently, it was not possible to structure items on Level 5, (Personal Feeling) beyond the joint facets A through E and the response mode facets K and L. As a result, items on this Level simply ask for general feelings about the retarded without ordering these feelings to the specific situations represented by the lateral facets F through J. Other ABS projects since the ABS-MR have structured the content (lateral) areas (Hamersma, 1969; Kaple, 1971).

Guttman (1959) has suggested that any coherent theory referring to empirical research can be expressed in a mapping sentence similar to that shown in Table 8 and that "lack of theoretical clarity as to the specification of the facets of the mapping may be the situation that often

TABLE 8.--A mapping sentence of the joint, lateral, and response mode struction facets used to structure the Attitude Behavior Scale-Mental Retardation.

Joint Struction					
(A) <u>Referent</u>	(B) <u>Referent Behavior</u>	(C) <u>Actor</u>	(D) <u>Actor's Intergruop Behavior</u>	(E) <u>Domain of Actor's Behavior</u>	
(Subject attributes to)	a <sub>1</sub> others (the) a <sub>2</sub> self (I)	b <sub>1</sub> belief b <sub>2</sub> experience (overt behavior)	c <sub>1</sub> others c <sub>2</sub> self (Mine/My)	d <sub>1</sub> compare (s) d <sub>2</sub> interact (s)	e <sub>1</sub> hypothetically e <sub>2</sub> operationally
Lateral Struction					
(F) <u>Life Situations</u>	(G) <u>Importance</u>	(H) <u>Evaluation Process</u>			
(with the mentally retarded in)	f <sub>1</sub> personal traits f <sub>2</sub> primary group relations f <sub>3</sub> recreation f <sub>4</sub> education f <sub>5</sub> employment f <sub>6</sub> health, welfare and legislation f <sub>7</sub> sex and family f <sub>8</sub> secondary group relations	g <sub>1</sub> high g <sub>2</sub> medium g <sub>3</sub> low	h <sub>1</sub> with respect to h <sub>2</sub> because of h <sub>3</sub> despite	(their)	
Response Mode Struction					
(I) <u>Trait Type</u>	(J) <u>Trait Level</u>	(K) <u>Valence</u>	(L) <u>Intensity</u>		
i <sub>1</sub> cognitive i <sub>2</sub> affective i <sub>3</sub> physical-behavioral	j <sub>1</sub> attributed handicap j <sub>2</sub> actual disability	k <sub>1</sub> negative k <sub>2</sub> neutral k <sub>3</sub> positive	l <sub>1</sub> low l <sub>2</sub> medium l <sub>3</sub> high	(intensity).	

impedes the connection between abstract theory and empirical work (p. 323)."

From the "complete" facet design illustrated in Table 8, twenty content items, each with a corresponding measure of intensity (described in the following section), were selected for each of the six Levels of the ABS-MR so that the final attitude scale consisted of 240 items.

An ideal, complete research project, as Guttman (1959) proposed in another context, would consist of observing a value of K and L for each subject on each variant of facets F through J for each Level permutation of facets A through E. Clearly, studies using the ABS-MR scale will fall short of this ideal. Nevertheless, this instrument represents what is believed to be the first attitude scale constructed on a priori basis according to facet theory. The ABS-MR was the first of a family of scales to be developed using a facet theory model (Jordan, 1968). Other scales developed through this approach, measuring racial attitudes and attitudes toward the emotionally disturbed respectively, have already been successfully employed in studies by Erb (1969), Hamersma (1969), and Maierle (1969). Other areas are attitudes toward the deaf (Poulos, 1970), the mentally ill (Whitman, 1970), drug addiction (Kaple, 1971; Nicholson, 1971) and the war disabled in Viet Nam (Down, 1972).

## Intensity

Guttman and Foa (1951) have emphasized the importance of intensity measures in attitude scales.

A single question ordinarily cannot distinguish between changes due to intensity and those due to direction. A change in response to a single question may be due to either factor, or to both. Since any single question is usually biased, as is easily seen from the theory of scale and intensity analysis, the use of a single question for the study of effect, or change, or even for comparing groups, is quite inadvisable (p. 53).

Suchman (1950) has suggested that the intensity of attitudes may be estimated 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. Using the same procedure as for content answers, these are scored and each respondent is given an intensity score (p. 219).

This latter procedure was adopted to measure the intensity of attitudes on the ABS-MR. On Levels 1 through 5, the three alternatives "not sure," "fairly sure," and "sure" are presented to the question "How sure are you of this answer?" after each content item in these scales. A variation of this procedure was used on Level 6 to determine whether a reported experience with the retarded was "unpleasant," "in between," or "pleasant."

## Standardization Study

The ABS-MR was administered to three groups in a standardization study: (a) 88 MSU graduate students (46

female, 42 male) in a course in medical information for rehabilitation counselors and special education teachers-- students studying to be professionals in the area of disabling or handicapping conditions; (b) 633 regular education students (426 female, 207 male) at the sophomore level and constituting all MSU education students in that level during the 1968 winter term; and (c) 523 elementary school teachers (381 female, 142 male) in Belize (British Honduras). The groups were chosen on the basis of a presumed difference in age, education, and cultural orientation, as well as knowledge and experience regarding mental retardation.

The six-Level scale based on facet theory summarizes the validation problem typically found in attitude research: the discrepancy between verbally expressed attitudes and actual action. Since "attitudes" in the present study is defined in both a more comprehensive and systemized fashion than heretofore, the gap between the subject's stated responses and his overt action has been considerably tightened. In contrast to much research which regards "attitude" as a "predisposition to behavior," this investigation applied Guttman's definition of attitudes as a "delimited totality of behavior with respect to something." Hence verbalizations refer to different Levels of behavior and go beyond the usual stereotypic, comparative, abstract, and hypothetical Levels of most attitude scales to verbalizations about affective experiences and concrete, overt behavior. If the relationship between verbal attitudes and overt behavior is ever to be further specified, it may well be

through a facet theory approach. The inclusion of Level 6--actual self reported behavior--in the ABS-MR, for example, provides the opportunity to predict and analyze which of the other five Levels correlate highest with this "actual behavior" level. Whether the subject's reported behavior would differ if he were expressing his views privately rather than "publicly" on a questionnaire is largely unascertainable. Attempts to assure his anonymity, however, were made to account for this possibility.

Table 9 shows the intercorrelation matrices "between the six Levels" for the three sample groups employed in the standardization study. It will be noted that for the two MSU samples, Level 5, "personal feelings," showed the highest correlation with Level 6, as predicted by facet theory and Guttman's (1959) contiguity hypothesis. For the Belize sample, the highest correlation obtained for Level 6 was with Level 4--"personal hypothetical behavior." In general support of the facet theory approach, it would appear from these results that what an individual says he "would" do and what he "feels" toward the retarded are better predictors of his behavior than what he thinks "should" be done.

It will be noted too that the obtained correlation matrices for the three groups form approximate simplexes as predicted by joint structure facet theory and the contiguity hypothesis--which states that the correlations between Levels should decrease in relation to the number of





steps that two Levels are removed from each other--thus providing some additional support for the contiguity hypothesis. There were three reversals from the hypothesized ordering for the MSU graduate students, four for the MSU sophomores, and five for the Belize teachers. Kaiser (1962) has suggested a procedure for testing a simplex approximation and this procedure, along with its application to the present data, are described in Chapter IV.

To return to the general concept of validity, Anastasi (1961) has pointed out that many attitude studies are conducted for the stated purpose of systematically exploring verbally reported attitudes. Often the criterion itself consists of verbally expressed attitudes. But what too often happens is that the content validity is superficially based upon a cursory examination and classification of topics to be covered. It would appear that the method of selecting item content on a systematic basis through the use of facet theory and a mapping sentence, as was done in the case of the ABS-MR, is far superior to previous methods in assuring that a representative sample of the desired behavior domains is selected. Through this method, it becomes a relatively simple matter to plot out the elements and facets one wishes to include and to construct scale items to meet this criterion, thus assuring that all desired elements are represented.

One final way in which attitude scales are sometimes validated is through the use of contrasted groups as a

special instance of concurrent validation. In concurrent validation procedures generally, the relationship between test scores and indices of criterion status obtained at approximately the same time is examined. With the method of contrasted groups, the reasoning is that the groups have gradually become differentiated through the multiple demands of daily living in some important way with respect to the criterion in question (Anastasi, 1961).

As previously stated, the standardization groups were chosen on the basis of a presumed difference in age, education, knowledge and experience regarding retardation, and cultural orientation. In particular, it was assumed that the special education-rehabilitation graduate students (Special Education Rehabilitation Personnel) would have more favorable attitudes toward mental retardation than the education sophomores (ED 200) and the Belize teachers, and, if such a difference were reflected on the ABS-MR, this could be interpreted as providing concurrent validation data for the instrument.

Table 10 shows the content and intensity mean scores and analysis of variance results for the three sample groups (also broken down into total male and total female groups), as well as for the independent variables (variables 15 through 36 in this table) to be described in a subsequent section of this chapter.

Examination of Table 10 reveals that the Special Education Rehabilitation Personnel group did in fact obtain



significantly higher content scores (variables 1-6) than the ED 200 sample, thus providing some support for the concurrent validity of the ABS-MR. It is interesting to note, however, that the ED 200 group scored significantly higher than the Special Education Rehabilitation Personnel group on the stereotypic Level 1 of the ABS-MR, as did the Belize sample. The latter group's significantly higher scores on Levels 1 and 2 in fact offset its significantly lower score on Level 6 to the point where the Belize sample obtained a significantly higher total mean score than did the Special Education Rehabilitation Personnel group. This finding highlights the utility of the facet approach to attitude construction; i.e., from looking only at the total scores for these two groups it would appear that the Belize teachers had more positive attitudes toward retardation, contrary to expectation, than students studying to be professionals in the area of handicapping conditions. What would be overlooked in the ordinary analysis, and what is illuminated by the facet approach, is that these more positive attitudes are reflected only in the more abstract "stereotypic" and "normative" Levels 1 and 2 and that the Belize group actually scored significantly more poorly on the more personal "hypothetical personal behavior" and "actual personal behavior" Levels 4 and 6 of the ABS-MR than did the Special Education Rehabilitation Personnel group.

In general, it may be stated that the results cited in this section provide support for the content and concurrent

validity of the ABS-MR as well as for the utility and fruitfulness of the facet approach to attitude scale construction.

### Reliability

The procedure selected to estimate the reliability (actually lower bounds) of the ABS-MR was to obtain a measure of internal consistency for each individual scale level by computing a Kuder-Richardson type reliability coefficient for each scale level. Hoyt (1967) has developed a formula for estimating test reliability based on analysis of variance which gives precisely the same result as formula (20) described by Kuder and Richardson (1937). Hoyt's formula, allowing for a difference between the method of scoring the ABS-MR and the scoring method used in the Hoyt and Kuder and Richardson data, was programmed into the MSU computer and was used to estimate the reliability of the ABS-MR for the three standardization sample groups on each scale level. Table 11 shows the reliability estimates obtained in this manner for each of the samples.

Shaw and Wright (1967) have reported reliability estimates on a large number of various types of attitude scales and the figures shown in Table 11 for the ABS-MR compare favorably with the majority of those reported in their test; thus, the reliability of the ABS-MR would certainly seem adequate for group research. In fact, the reliabilities shown for the ABS-MR in Table 11 compare quite favorably to those of many tests used for individual diagnosis, evaluation, and selection described by Anastasi (1961).

TABLE 11.--Hoyt reliability coefficients for ABS-MR standardization groups.

Group	ABS-MR Scale Level Reliability Coefficients					
	1	2	3	4	5	6
88 MSU SER Students	.74	.82	.64	.79	.85	.78
633 MSU ED 200 Students	.73	.83	.69	.79	.71	.67
523 Belize Teachers	.63	.75	.60	.79	.76	.76

It is interesting to note that the figures in Table 11 are uniformly lowest on Level 3. Apparently the subjects were less sure about how others should (i.e., right-wrong behavior) behave toward the retarded, which is tapped on this Level, than they were about how they themselves would behave, which is measured on Levels 4-6.

#### Instrument Limitations

For a number of reasons, among which may be counted the press of temporal commitments in several nations as well as the experimental nature of the task involved and the newness of the technique, which precluded falling back on established research for guidance, several alternative approaches to the ABS-MR scale development are readily apparent. Among these alternatives may be mentioned the following: failing to control for (a) response sets; (b) social desirability; (c) homogeneous lateral struction or item content on all Levels; (d) alternative combinations

of the facet elements; and (e) the effect of the order of scale administration on correlation matrices. Some of these possible shortcomings, especially the latter two, have since been dealt with by Maierle (1969).

Each item in the ABS-MR was generally followed by (1) suggesting a negative evaluation, (2) a neutral evaluation, and (3) a positive position. Ideally, the questions and responses would have been worded so that the unfavorable, neutral, and favorable responses would have been randomly assigned to the three numbered alternatives. Thus ideally, the most favorable response on one question would be alternative 1, while on another it would be alternative 3, and so on in a random fashion. Because of the press of time and logistical problems in cross-cultural organization of the data and computer programming, however, the responses were set up so that alternative 1 always represented the least favorable response, alternative 2 always represented a neutral position, while alternative 3 always constituted the most positive response. In such a schema there exists, needless to say, a real danger of error due to response sets, or the tendency of some of the subjects to answer all the questions in a similar fashion independent of the content of the particular item. Analysis of the data however indicated this did not happen.

Attitude scales of this type are also susceptible to the analagous pressure of social desirability influencing various responses. This problem has been discussed in the



section on validity and, as suggested in that section, the only way out of this dilemma with an instrument of this type appears to be through forced choice, guaranteeing the subjects complete anonymity. Whether or not his procedure represents an adequate solution to the problem, however, remains a moot question.

It was also noted in the section on the development of the ABS-MR that the lateral struction or item content was not as well controlled as the joint struction or attitude Level. This was particularly true with regard to Level 5 which, as was previously noted, was not structured on the lateral dimension at all. Lateral struction was also relatively uncontrolled on the other Levels of the ABS-MR, which is to say that the various subscales or Levels include items of different content so that the same content does not necessarily appear on all Levels. Hamersma (1969), in a study of racial attitudes and Kaple (1971) in the study of drug addiction, employed an instrument based on Guttman facet theory in which the content of each attitude item is repeated across all six Levels or sub-scales, with the item being altered only to fit the structure (joint struction) of the different Levels. In this manner, the item content was held constant so that the attitude structure was more easily assessed than in the present research.

It was also previously noted that multiplication of the two elements in each of the five joint struction facets yielded a possible 32 combinations or profiles of elements.

The six Levels of the ABS-MR scale were selected primarily through clinical judgment. Maierle (1969) has extended research in this area (Table 29, Appendix A) and found that of the 32 combinations which might be formed, only 12 were semantically consistent. Maierle found that varying numbers of these combinations belong to different Levels; that is if a Level is defined by the number of strong or weak elements found in the attitude items of that Level, then one combination exists on Level 1 of the ABS-MR, three on Level 2, four on Level 3, two on Level 4, and one combination each on Levels 5 and 6. The violations of simplex orderings previously noted (Table 2) in the standardization data may have been due in part to the fact that four combinations are possible on Level 3, the Level on which most of the violations of simplex ordering have been found up to now (Jordan, 1971b).

Another question related to simplex ordering which has been unanswered until Maierle's (1969) research has to do with the effect of the order of scale Level administration upon the resulting correlation matrix. In the present study, as in all of the previous research in this area, all of the data has been obtained from administration of various Level member sub-tests in the same order, i.e., all items of Level 1 have been presented first, all items of Level 2 presented second, and so forth. Maierle (1969) randomly varied the order of scale Level presentation of a new Guttman facet type attitude scale to a large group of subjects and found

that a better simplex approximation was obtained when correlations were plotted according to theoretical relationships than according to order of administration, thus lending further support to the theoretical assumptions involved.

### Independent Variables

The instrument section labeled Personal Questionnaire: MR operationalized a number of independent variables which the review of the literature indicated to be determinants of attitudes toward mentally retarded persons. Many of the items in this questionnaire were used in the international study of attitudes toward physically disabled persons conducted by Jordan (1968) and all revisions in these items were made by that author.

### Demographic Variables

A total of seven demographic items were included in the questionnaire which from a theoretical standpoint might correlate with, or predict, the criterion: sex, item 81 (241);<sup>1</sup> age, item 82 (242); amount of education, item 87 (247); work experience in education, item 83 (243); marital status, item 83 (244); religious preference, item 85 (245); and perceived importance of an adherence to religion, item 86 (246) and 96 (247).

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<sup>1</sup>References to items from Section II of the United States version of the ABS-MR will be followed by the Colombian designation for the same item enclosed in parentheses. For explanation, see "Translation Revisions," p. 74.

### Change Orientation

This set of six questions was adapted by Felty (1965) from Programa Interamericano de Información Popular in Costa Rica to measure attitudes toward change in the following areas: self change, item 88 (248) and 97 (257); child-rearing practices, item 89 (249); birth control, item 90 (250); automation, item 91 (251); and political leadership change, item 92 (252).

### Educational Aid and Planning

Items were included in the questionnaire to measure opinions regarding government aid to education, item 93 (253) and item 94 (254), as well as to who should have responsibility for educational planning, item 95 (255).

### Contact with Handicapped Persons

Questions 98 (258) through 106 (266) were designed to operationalize variables involved in personal contact between the respondents and handicapped persons. The items included are conceptually distinct. Item 98 (258) reports the category of handicap with which the respondent has had the most experience; item 99 (259) reports the kind of relationship experienced; item 100 (260) the frequency of contact; item 101 (261) the ease with which the contact might have been avoided; items 102 (262) and 103 (263) the extent to which the respondent gained materially by the contact; while item 104 (264) indicates the availability of alternatives to working with the handicapped. Items 105

(265) and 106 (266) were designed to measure respectively (a) the amount of contact; and (b) the amount of enjoyment experienced in contrast with mentally retarded persons only.

#### √ Efficacy

Attitude item 107, 109, 111, 113, 115, 117, 119, 121, and 123 (267, 269, 271, 273, 275, 277, 279, 281, and 283) which appear in the questionnaire (Appendix C) under the heading "Life Situations," were adapted from a Guttman scale reported by Wolf (1967). Measures of intensity, or answer "certainty," i.e., items 108, 110, 112, 114, 116, 118, 120, 122, and 124 (268, 270, 272, 274, 276, 278, 280, 282, 284) were added to the original items evolved by Wolf. In addition, four levels of intensity of agreement-disagreement with the items replace the original "agree-disagree" dichotomy used by Wolf (1967).

This scale was designed to measure attitudes toward man and his environment and attempts to determine the respondent's view of this relationship.

The continuum underlying this scale ranged from a view that man is at the mercy of his environment and could only hope to secure some measure of adjustment to forces outside of himself, to a view that man could gain complete mastery of his physical and social environment and use it for his own purpose (Wolf, 1967, p. 113).

Jordan termed this variable "Efficacy," since the scale purports to measure attitudes toward man's effectiveness in the face of his natural and social environment.

### Knowledge About Mental Retardation

A sixteen item knowledge scale on mental retardation, items 125 (285) through 140 (300), was extracted from the larger General Information Inventory of Haring, Stern, and Cruickshank (1958) by Jordan (1969). These sixteen items were selected because they were specifically designed to measure the amount of factual knowledge possessed by the respondent regarding various aspects of mental retardation.

### Translation Revisions

A number of changes were introduced in the Colombian version of the ABS-MR necessitated by differences in cultural conditions or required to achieve a more natural Spanish expression. A discussion of the latter, involving phraseology and stylistics, is omitted since a degree of Spanish fluency would be prerequisite. For more detailed examination, the United States and Colombian versions are included in Appendices C and E. It should be noted that the numbering of items in the Colombian questionnaire is continuous (1 to 300) in contrast to that of the United States which is divided into two sections and numbered as follows: Section I, 1 to 160 and Section II, 1 to 140. In the United States responses were recorded on standardized answer sheets and scored mechanically; in Colombia, responses were recorded directly on the questionnaires and scored by hand. As previously indicated, items from Section II in the United States' version will be cited first followed by the Colombian designation enclosed in parentheses, e.g., 1 (161).

Two items were altered to conform to the Colombian educational and political system. Since a given locality does not vote for school taxes, item 71, Section II (231) was changed from "Voted for extra taxes for their education" to "Supported" (the issue of) "extra taxes for their education." In item 93, Section II (253) "departmental" was substituted for "local" in the phrase "more local government income should be used for education" since the department (equivalent to "state") is the governmental unit which is directly responsible for maintaining the school system in Colombia.

A fifth response was added to the Colombian version in item 95, Section II (255), dealing with educational planning, since the United States' version lacked the option of joint church and state undertakings as is the case in Colombia.

Extra options were added to items 84, Section II (244) and 87, Section II (247) dealing with demographic categories, and two extra options were added to items 98, Section II (258) regarding categories of handicap contact experienced.

One translation error occurred in item 126, Section II (286) in which "occupational training" was erroneously rendered as "educational training." In item 128, Section II (288) ("Normal children reject mentally retarded children because:"), the translation for response 4 was especially difficult because of the English idiom in "they do not

'catch on'." The idiom was approximated with "they do not learn with ease." Since response 1 of the same item was "of their poor learning ability," the distinction between responses 1 and 4 was less notable in Spanish than in English. This translation problem suggests that idioms be avoided if at all possible in questionnaire construction intended for cross-cultural use.

Two items, 49 and 85 (Section I), dealing with retarded children staying overnight in homes of normal children, were left intact despite serious consideration to substitute equivalent alternatives. It is not usual for Colombian children in general to stay overnight in homes other than their own. The United States' concept was not replaced, however, since future cross-cultural comparisons of data would be expected to reflect such a cultural difference--one of the major objectives in the use of the ABS-MR.



## CHAPTER IV

### SAMPLE, HYPOTHESES, AND ANALYSIS PROCEDURES

Colombia was selected because its level of economic development, modernization, and cultural orientation was expected to allow for significant comparisons with other nations included in the comprehensive international study. The cross-cultural intent of the larger study required that the same groups in the various nations be sampled: regular school teachers (primary and secondary), special education and rehabilitation personnel, parents of the mentally retarded, and employers or managers. Analysis procedures were chosen to test relationships specified in the hypotheses.

#### Sample

Under the sponsorship of the Department of Psychology, University of Valle, Cali, Colombia, the ABS-MR was administered to the following groups: (a) 191 regular primary school teachers, (b) 214 regular secondary school teachers, (c) 103 parents of the mentally retarded, and (d) 37 special education and rehabilitation personnel.

#### Regular Primary School Teachers

With the approval and assistance of the elementary education administration, the ABS-MR was administered to

primary teachers and principals who assembled at Gran Colombia Elementary School in Cali on two occasions, June 1 and June 15, 1968, for in-service meetings. Several members of this sample designated themselves as principals. No effort was made to treat the principals as a separate group, however, because their duties generally included classroom teaching; moreover, higher qualifications or specialized training is not required for principal placement as in the United States.

The sample obtained comprised one-seventh of the universe of the primary educators employed in the seven urban zones of Cali.<sup>1</sup> A greater portion of the sample were employed in Zone 1 schools which included a broad range of social class categories.

#### Regular Secondary School Teachers (214)

With the cooperation of the Office of Education of Secondary Education of the Department of Valle, regularly secondary school teachers were assembled at Santa Librada High School in Cali on June 6, 1968. Thirteen secondary principals were included in the sample. They have not been treated separately in this study for the reasons previously noted.

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<sup>1</sup>Educación primaria oficial del Departamento del Valle del Cauca. Años lectivos 1966-1967, 1967-1968. Instituto de Investigación y Planeación Educativas, Universidad del Valle, Cali, Colombia.

The sample obtained comprised approximately one-half the universe of the public secondary educators employed full-time in Cali; with part-time teachers included, the sample would comprise one-third.

Parents of the Mentally Retarded (103)

In the 1960's "grass root" associations of parents of the mentally retarded developed in the larger cities throughout Colombia. Ninety-one subjects in this sample were members of two associations: Instituto Tobías Emanuel in Cali and ACONIR (Asociación Colombiana Pro-Niño Retardado Mental) in Bogotá. The remaining 12 subjects were parents whose children were enrolled in a school for retardates in Cúcuta.

The sample is likely more representative of socially active and middle class parents. About 90 per cent of the parents were contacted at parent meetings or conferences. The schools affiliated with the various parent organizations do depend on some private support in the form of tuition or individual contributions. Moreover, wealthy families generally send their retarded children abroad; the poor in Colombia usually fail to recognize or ignore the problem of mental retardation. The parent sample was obtained during June and July of 1968.

Special Education and Rehabilitation  
Personnel (37)

Twenty-three of this sample were teachers, teacher-aides, or principals at institutes for the mentally retarded.

The remainder were professionals who worked primarily with the retarded: pediatricians, psychiatrists, psychological counselors, social workers, and a neurologist, dentist, and psychologist. These professionals from ACONIR, Bogotá; from the University of Quindío, Armenia; from University Hospital and the University of Valle, Cali; and from institutes for the mentally retarded in Cali and Cúcuta completed the ABS-MR. Since schools, as well as institutes for the mentally retarded, close during the summer months in many departments in Colombia, Special Education Rehabilitation Personnel in Barranquilla, Medellín, Pereira, and Manizales could not be contacted. The present sample, however, is not as limited in size as it would first appear since the number of professionals specialized in mental retardation is very limited in Colombia.

### Major Research Hypotheses

Three principal kinds of relationships were examined to test the major research hypotheses: (a) correlational patterns between the six attitude Levels of the ABS-MR, (b) analysis of both content and intensity of response on the six Levels, and (c) correlations among 29 independent variables and the six ABS-MR Levels.

### Original Hypotheses

The major research hypotheses originated from Jordan's (1968) research on attitudes toward education and physically disabled persons in eleven nations. These

hypotheses were based on previous research and theoretical considerations, particularly that four classes of variables are significant determinants of attitudes: (a) demographic factors; (b) value orientation; (c) contact factors; and (d) the knowledge factor. Although a number of Jordan's hypotheses were supported, he felt his results would be more substantial with an instrument capable of tapping a given attitude universe more accurately and uniformly. Jordan's criterion instruments in the 1968 study tapped only one Level (stereotypic) of what later was recognized as a six-Level attitude universe.

The following hypotheses are adaptations, therefore, which stem from the eleven nation study and subsequent related research carried out as part of the international project described in Chapter I. With more sophisticated instrumentation the hypotheses are expected to reveal more clearly the relationships between attitudes and the four classes of predictor variables.

#### Relating Attitudes and Values

- H-1 Persons who score high in efficacy<sup>1</sup> will score high in positive attitudes toward the mentally retarded on each of the six Levels.

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<sup>1</sup>Efficacy is operationalized by the Life Situations' scale (Wolf, 1967) which measures man's sense of control over his social and physical environment.

Relating Attitudes and Knowledge

- H-2 Persons who score high in knowledge about mental retardation will score high in positive attitudes toward the mentally retarded on each of the six Levels.

Relating Attitudes and Contact

- H-3 High frequency of contact with mentally retarded persons will be associated with favorable attitudes toward the mentally retarded on each of the Levels of the ABS-MR if high frequency is concurrent with: (a) alternative rewarding opportunities; (b) ease of avoidance of the contact; and (c) enjoyment of the contact.

Relating Attitudes and Religiosity

- H-4 Persons who score high on stated importance of religion will score low on positive attitudes toward the mentally retarded.
- H-5 X Persons who score high on stated adherence to religion will score low on positive attitudes toward the mentally retarded.

Relating Attitudes and Demographic Variables

- H-6 + Amount of education will be positively related to favorable attitudes toward the mentally retarded.
- H-7 + Age will be positively related to favorable attitudes toward the mentally retarded.
- H-8 x Women will score higher on positive attitudes toward the mentally retarded than will men.

Relating Attitudes and Change Orientation

- H-9 x Persons who score high on change orientation will score high on positive attitudes toward the mentally retarded.

Relating Attitudes to Opinions on  
Educational Aid and Planning

- H-10 Agreement with federal versus local government aid to education will be positively related to favorable attitudes toward the mentally retarded.
- H-11 Agreement with centralized government planning of education will be positively related to favorable attitudes toward the mentally retarded.

Relating Attitudes and Group Membership

- H-12 The groups will assume the following order with respect to favorable attitudes toward the mentally retarded:  
parents of the mentally retarded >  
special education and rehabilitation personnel > regular school teachers,  
primary > and regular school teachers,  
secondary.

Relating Attitudes and  
Multidimensionality

- H-13 The ABS-MR Levels or attitude subuniverse will form a Guttman simplex for each of the sample groups.

Analysis Procedures →

The Control Data Corporation Computers (CDC 3600 and 6500) at Michigan State University were used to analyze the data which has been also used for the larger comprehensive study described in Chapter I.

Descriptive Statistics

Two Frequency Column Count programs (Clark, 1964), designated as FCC-I and FCC-II were used to compile the frequency distribution for every item on the instrument. This procedure was found to be useful as a final precaution to

assure that the data fed into the computer for analysis was accurate.

### Correlational Statistics

In the CDC MD-STAT program (Ruble, Keil, & Ball, 1966) a great amount of data can be employed in one analysis. Separate analyses can be done for the total group for any number of sub-groups or partitionings of the data. For each specified group, e.g., total, male, female, etc., a number of statistics can be requested. Those used for each partitioning in this research were means and standard deviations for each variable and the matrix of simple correlations between all variables.

Partial and multiple correlations are also outputs of the general multiple regression model used in the CDC program at Michigan State University (Ruble, Kiel & Rafter, 1969a). One advantage to the use of 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 it is possible to obtain spuriously based conclusions because 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



correlation of each variable with the criterion, i.e., the effects of all but one variable are held constant.

The use of multiple regression analysis has been recommended by Ward (1962) because it "not only reduces the dangers in piecemeal research but also facilitates the investigation of broad problems never before considered 'researchable' (p. 206)." The multiple correlation program yields the following statistics: (a) the beta weights of all predictor variables; (b) a test of significance for each beta weight; (c) the partial correlations between each predictor and the criterion; and (d) the multiple correlation between the combined predictors and the criterion.

#### Analysis of Variance Statistics

The UNEQ1 routine (Ruble, Kiel & Rafter, 1967) was used to calculate the one-way analysis of variance statistics. This program is designed to handle unequal frequencies occurring in the various categories.

A two-way analysis of variance design for unequal n's was used to analyze group-sex interaction (Ruble, Paulson & Rafter, 1966). Since the samples were not equal in size or sex ration within groups, all F tests were based on coefficients represented by the adjusted means. The coefficients on which the adjusted means are based equalizes or accounts for the variance in the size of the group samples. For convenience of computer programming the F statistic was used for testing of all mean differences even though differences between two means are usually treated

by the  $t$  statistic; results are the same for two means using either test (Edwards, 1966).

While a significant overall  $F$  leads to rejection of the statistical hypothesis, it is not known whether every mean is significantly different from every other mean when three or more means are involved. Several multiple means tests have been proposed for determining the differences between treatment means (Winer, 1962). In this research the  $F$  test for group comparisons is the usual one with the  $F$  test used to test for differences between "adjusted means" or "pairs of groups" is equal to a two-tailed  $t$  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 Multiple Means Test (Edwards, 1966; Kramer, 1956) up to and including three treatment means. The procedure is somewhat more liberal than Duncan's when more than three means are included, thus increasing the likelihood of Type 1 error. The procedure also does not account for non-independence among the pair-of-treatment means.

### Simplex Approximation Test

Kaiser (1962) has suggested a procedure for testing a simplex approximation. Kaiser's approach may be seen as performing two functions: (a) the "sorting" and rearranging of all possible arrangements of adjacent pairs of correlation coefficients so as to generate the best empirically possible simplex approximation; and (b) the assignment of a descriptive statistic,  $\underline{Q}^2$ , to the original and re-arranged matrices. The index  $\underline{Q}^2$  is a descriptive one, with a range of 0.00 to 1.00.

A computer program was developed at Michigan State University which (a) re-ordered the obtained Level member correlations of each ABS-MR matrix by Kaiser's procedure to generate the "best" empirically possible simplex approximation, and (b) calculated the  $\underline{Q}^2$  for both the obtained and the empirically best ordering of each matrix.

At the time the present research was completed an appropriate likelihood ratio for measuring goodness of fit was not available. Mukherjee (1966) has suggested a method which appears appropriate for matrices of equally spaced correlations but neither the facet theory as originally postulated by Guttman (1959) nor the data obtained to date indicates that the matrices have equally spaced entries.

Table 12 shows the matrices which evolved from the standardization study discussed in Chapter III. The top section of Table 12 shows the actually obtained matrices previously illustrated in Table 9 for the Michigan State

TABLE 12.--- $Q^2$ 's for Original and Ordered Matrices on Six Level ABS-MR for Standardization Groups.

	88 MSU SER Students						633 MSU ED 200 Students						523 Belize Teachers					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
	$Q^2 = .974$						$Q^2 = .946$						$Q^2 = .858$					
Original	.56	---	---	---	---	---	.44	---	---	---	---	---	.22	---	---	---	---	---
Matrices	.17	.34	---	---	---	---	.05	.21	---	---	---	---	.11	.32	---	---	---	---
	.10	.12	.48	---	---	---	.15	.21	.55	---	---	---	.21	.28	.39	---	---	---
	.04	.13	.08	.24	---	---	.17	.12	.19	.38	---	---	.17	.06	.19	.31	---	---
	.00	.05	.04	.13	.21	---	.01	.04	.05	.19	.22	---	.13	.10	.15	.32	.16	---
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
	$Q^2 = .974$						$Q^2 = .946$						$Q^2 = .859$					
Ordered	.56	---	---	---	---	---	.44	---	---	---	---	---	.22	---	---	---	---	---
Matrices	.17	.34	---	---	---	---	.05	.21	---	---	---	---	.11	.32	---	---	---	---
	.10	.12	.48	---	---	---	.15	.21	.55	---	---	---	.21	.28	.39	---	---	---
	.04	.13	.08	.24	---	---	.17	.12	.19	.38	---	---	.13	.10	.15	.32	---	---
	.00	.05	.04	.13	.21	---	.01	.04	.05	.19	.22	---	.17	.06	.19	.31	.16	---

University graduate students in special education-rehabilitation (SER), the Michigan State University education sophomores (ED 200), and the Belize teachers, along with a value of  $\underline{Q^2}$  for each matrix. The lower section of Table 12 shows the  $\underline{Q^2}$ 's for the same data as re-ordered by Kaiser's (1962) procedure.

Examination of Table 12 indicates that the obtained matrices for the Special Education Rehabilitation personnel and ED 200 groups and the empirically "best" ordered matrices for these two groups were identical, with correspondingly identical  $\underline{Q^2}$  values. For the Belize group, Levels 5 and 6 are reversed in the obtained and best orderings but the increase in the  $\underline{Q^2}$  value seems minimal, i.e., from .858 to .859, as a result of this re-ordering.

It will be noted that Kaiser's (1962) method of re-arranging the matrices leaves something to be desired in that it does not produce a perfect simplex criterion by which to compare obtained matrices since only adjacent pairs of correlations were re-ordered. Re-ordering of adjacent pairs only means that all possible permutations of the data are not obtained. This is made quite clear in Table 13. It will be recalled that a perfect simplex exhibits the characteristics of (a) descending absolute correlation coefficients moving from top to bottom in the columns, and (b) ascending coefficients moving from left to right in the rows. Table 13 shows the "best" simplexes obtained by re-ordering the same data intuitively.

TABLE 13.--Empirically and Intuitively Ordered ABS-MR Matrices for Standardization Groups.

	88 MSU SER Students						633 MSU ED 200 Students						523 Belize Teachers											
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Empirical Ordering	.56	.17	.34	.12	.08	.24	.44	.05	.21	.15	.21	.55	.22	.11	.32	.21	.28	.39	.13	.10	.15	.32	.06	.19
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Intuitive Ordering	.56	.17	.48	.13	.04	.21	.55	.21	.44	.15	.19	.38	.39	.22	.32	.16	.21	.32	.22	.13	.17	.21	.06	.11
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

At the time of research completion there was no test of significance available for  $Q^2$ . Hamersma (1969) accepted six order reversals as the maximum a 6 x 6 matrix could contain and still be accepted as approximating a simplex. He found that by this criterion, a  $Q^2$  value of .60 was minimal and that preferably a value of .70 should be used to consider a matrix as approximating a simplex.

#### Significance Level

The .05 level was accepted as constituting significance beyond chance level for both correlational and analysis of variance statistics in the present research. Setting the acceptable level of significance at this level results in some danger, of course, in research of this type, which employs large samples and numerous variables, of mistaking spurious yet statistically significant relationships and differences for meaningful ones. However, at the present stage of theory development, it was felt that this danger was more than offset by the cues and guides which might be provided future researchers in this area through statistically significant differences and relationships which might otherwise be overlooked at a more exacting level of significance.

## CHAPTER V

### RESULTS OF THE STUDY

This chapter presents a statistical analysis of the data to confirm or disconfirm the research hypotheses stated in Chapter IV. Hypotheses 1, 2, 4, 5, 6, 7, 10, and 11 were analyzed using product-moment correlations. Hypotheses 3 and 9 were analyzed using multiple correlations. Hypotheses 8 and 12 required an analysis of variance already referred to in Chapter IV. The STATROUT (Ruble & Donaldson, 1969) item analysis program and the  $Q^2$  program yielded the results to test Hypothesis 13. The .05 level of statistical significance determined the acceptability of a hypothesis. Examination of the tables also provides considerable data beyond that needed for hypothesis-testing purposes.

It will be noted throughout this chapter that the figures represented in the tables do not always agree exactly with the sample sizes presented in Table 15. This is due to computer procedures which drop subjects with incompletely filled out questionnaires. It should be pointed out also that computer procedures for the analysis



of variance treated missing items as valid observations which were included in the calculation of means, correlations, etc. This fact accounts for much of the discrepancies evident among some tables. The effect of this computer procedure will be discussed again in Chapter VI. Because of the relatively large sample sizes involved, it was not felt that missing data constituted a serious problem and all statistics are based on the N's reported in the tables. That larger correlations sometimes appear for the total sample than for the individual interest group samples may be attributed to the homogeneity within and differences between groups with regard to the predictor variables in these instances.

#### ABS-MR Reliability and Validity

Table 14 contains the reliability figures determined by the Hoyt analysis of variance method. Reliability samples ranged from .22 to .49.

Validity of the ABS-MR was assessed by the "known group" method and by the results of the simplex test as indicated in Table 14.

#### Relating Attitudes and Efficacy

H-1 Persons who score high in efficacy will score high in positive attitudes toward the mentally retarded on each of the six Levels.

In general, there were no significant correlations between efficacy (one's sense of control over the environment)

TABLE 14.--Reliability.

Groups					
ABS-MR	SER	RST-E	RST-S	RST-C	PMR
Levels					
1	.31	.33	.35	.33	.38
2	.28	.22	.26	.24	.25
3	.37	.27	.24	.26	.30
4	.49	.44	.45	.45	.42
5	.40	.42	.45	.43	.42
6	.37	.37	.40	.38	.42

TABLE 15.--Sample size and sex composition for the ABS-MR in Colombia.

Group	Males	Females	Total
SER	11	25	37
RST-E	67	124	191
RST-S	104	108	214
PMR	40	62	103
Total	222	319	545*

\*Discrepancy of 4 due to incomplete questionnaire.

and favorable attitudes except in one instance: on Level 6 (personal action) for the special education and rehabilitation (SER) group (Table 16).

SER and both groups of regular school teachers scored significantly higher in efficacy than did the parents of the mentally retarded. The same pattern held when it came to the certainty (intensity) of their responses, (Table 27). Of interest is that the parents of the mentally retarded had the highest (but not significant) correlations among the four groups on the first five attitude levels. Males scored higher in efficacy (content) than did females (Table 23).

Hypothesis 1 was supported only on Level 6 for the SER group.

#### Relating Attitudes and Knowledge

H-2 Persons who score high in knowledge about mental retardation will score high in positive attitudes toward the mentally retarded on each of the six Levels of the ABS-MR.

Regular secondary school teachers were the most knowledgeable group about mental retardation; they differed significantly from the parents of the mentally retarded who scored lowest in this area (Table 27). Significant correlations between positive attitudes and knowledge appeared for the regular secondary school teachers group on Levels 3 and 4 (moral evaluative and hypothetical) (Table 17).

Hypothesis 2 was only supported in these two instances as

TABLE 16.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and efficacy in Colombia.

Group	Level 1			2			3			4			5			6		
	r	N	sig	r	N	sig	r	N	sig	r	N	sig	r	N	sig	r	N	sig
SER	-03	33	85	-15	33	38	21	33	21	14	33	41	-15	33	39	33	33	05*
RST-E	-01	190	91	05	190	50	12	190	10	03	190	69	04	190	60	-02	190	74
RST-S	06	213	36	-02	213	83	07	213	29	01	213	91	03	213	63	01	213	92
PMR	11	99	28	17	99	09	19	99	06	16	99	10	17	99	09	14	99	16

\*Significant at .05 or less.

TABLE 17.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and knowledge in Colombia.

Level 1	2		3		4		5		6									
	r	sig	r	sig	r	sig	r	sig	r	sig								
SER	-10	33	35	-00	33	98	-42	33	01*	07	33	67	06	33	73	-16	33	37
RST-E	-01	189	93	14	189	05*	04	189	62	12	189	09	-04	189	62	13	189	06
RST-S	05	212	44	05	212	50	14	212	04*	21	212	005*	10	212	16	01	212	92
PMR	17	100	09	18	100	07	07	100	45	-02	100	80	03	100	75	10	100	30

\*Significant at .05 or less.

well as for regular elementary school teachers (Level 2). In the case of special education and rehabilitation personnel, the one significant correlation (on Level 3) was negative.

### Relating Attitudes and Values

H-3 High frequency of contact with mentally retarded persons will be associated with favorable attitudes toward the mentally retarded on each of the Levels of the ABS-MR if high frequency is concurrent with a) alternative rewarding opportunities, b) ease of avoidance of the contact, and c) enjoyment of the contact.

Multiple correlations between the contact variables and the six Levels of the ABS-MR showed significant, positive relationships with remarkable consistency for every group (Table 18). Analysis by sex and totals for all subjects showed significant multiple correlations throughout. Examination of the data in terms of individual contact variables revealed occasional, significant correlations, most of which were accounted for by the variable on enjoyment (one-half of the 12 significant correlations in the four groups). Examination of the data on the basis of groups revealed that regular secondary school teachers had half the significant correlations. On the basis of sex, females had twice as many significant correlations as did men. Analyzing the total results, the significant correlations occurred on the higher Levels of the ABS-MR (3

TABLE 18.--Partial and multiple correlations and significance Levels<sup>a</sup> between the six Levels of the ABS-MR and contact variables in Colombia.

Contact Variable	Levels					
	1	2	3	4	5	6
Group: Special Education and Rehabilitation Personnel (SER)						
18 HP Amount	-21 (29)	23 (24)	13 (51)	-14 (47)	-11 (58)	24 (22)
19 HP Avoidance	37 (05)*	-14 (46)	-07 (71)	33 (08)	23 (25)	-16 (43)
20 HP Income	36 (06)	16 (41)	-12 (55)	-18 (36)	30 (12)	08 (67)
21 HP Alternative	03 (87)	14 (46)	-33 (08)	-22 (26)	-25 (20)	-47 (01)*
22 MR Amount	-22 (26)	-18 (35)	-01 (95)	36 (06)	-09 (66)	-08 (67)
23 MR Enjoyment	-18 (35)	05 (81)	-04 (83)	-09 (64)	-15 (46)	43 (02)*
Mult Corr	54 (005)*	38 (02)*	42 (02)*	55 (005)*	50 (005)*	59 (005)*

TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
Group: Parents of the Mentally Retarded (PMR)						
18 HP Amount	18 (07)	17 (09)	18 (08)	-13 (20)	05 (62)	05 (62)
19 HP Avoidance	05 (60)	02 (84)	-10 (34)	-08 (44)	-01 (88)	01 (95)
20 HP Income	10 (32)	07 (51)	02 (88)	-02 (86)	01 (90)	-03 (73)
21 HP Alternative	03 (80)	-09 (36)	14 (17)	01 (90)	06 (54)	-18 (08)
22 MR Amount	-07 (51)	10 (34)	-15 (14)	-00 (97)	-06 (59)	12 (25)
23 MR Enjoyment	-15 (13)	-01 (94)	05 (61)	12 (22)	07 (48)	06 (54)
Mult Corr	25 (01)*	23 (01)*	27 (005)*	16 (NS)**	16 (NS)**	23 (01)*



TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
	Group: Regular School Teachers, Elementary (RST-E)					
18 HP Amount	-01 (84)	-07 (32)	08 (28)	03 (71)	-04 (59)	09 (21)
19 HP Avoidance	03 (71)	-08 (25)	-10 (17)	-04 (63)	-05 (48)	-11 (12)
20 HP Income	12 (10)	02 (77)	11 (15)	02 (80)	08 (27)	11 (15)
21 HP Alternative	-11 (14)	10 (18)	-06 (44)	07 (36)	07 (36)	03 (66)
22 MR Amount	02 (76)	01 (83)	00 (98)	05 (47)	05 (49)	07 (31)
23 MR Enjoyment	02 (80)	16 (03)*	16 (03)*	09 (20)	-04 (60)	17 (02)*
Mult Corr	14 (05)*	23 (01)*	22 (01)*	21 (01)*	19 (01)*	32 (01)*

TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
Group: Regular School Teachers, Secondary (RST-S)						
18 HP Amount	-01 (92)	02 (80)	-03 (67)	-05 (47)	-12 (07)	08 (26)
19 HP Avoidance	02 (78)	-02 (74)	01 (84)	03 (68)	02 (82)	01 (92)
20 HP Income	00 (95)	-02 (82)	00 (95)	-06 (41)	05 (46)	-03 (69)
21 HP Alternative	03 (62)	-16 (02)	-10 (15)	01 (90)	12 (08)	-07 (29)
22 MR Amount	-01 (83)	17 (01)*	18 (01)*	06 (37)	03 (74)	17 (01)*
23 MR Enjoyment	04 (55)	06 (37)	04 (55)	19 (01)*	08 (27)	18 (01)*
Mult Corr	10 (NS)**	23 (01)*	22 (01)*	29 (01)*	25 (01)*	37 (01)*

TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
	Group: Females					
18 HP Amount	13 (02) *	15 (01) *	12 (03) *	-01 (77)	-01 (79)	05 (39)
19 HP Avoidance	04 (54)	-03 (61)	-01 (85)	05 (40)	-02 (75)	-07 (21)
20 HP Income	06 (26)	-05 (39)	04 (50)	02 (77)	12 (03)	01 (87)
21 HP Alternative	-12 (03) *	-02 (75)	-08 (13)	07 (20)	01 (79)	-11 (05) *
22 MR Amount	01 (78)	01 (87)	01 (84)	04 (52)	02 (67)	12 (03) *
23 MR Enjoyment	-07 (21)	09 (11)	08 (13)	19 (001) *	05 (36)	28 (0005) *
Mult Corr	18 (01) *	20 (01) *	20 (01) *	43 (01) *	24 (01) *	41 (01) *

TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
	Group: Males					
18 HP Amount	-09 (18)	-09 (18)	-04 (55)	-11 (10)	-13 (05)*	12 (07)
19 HP Avoidance	06 (41)	-06 (35)	-11 (09)	-06 (41)	02 (73)	05 (43)
20 HP Income	-01 (90)	-03 (62)	-04 (54)	05 (50)	02 (75)	00 (97)
21 HP Alternative	08 (22)	01 (86)	-09 (17)	-11 (10)	-00 (99)	06 (40)
22 MR Amount	-13 (06)	05 (48)	13 (06)	10 (13)	01 (91)	08 (27)
23 MR Enjoyment	03 (63)	09 (17)	15 (03)*	24 (0005)*	11 (10)	16 (01)*
Mult Corr	19 (01)*	13 (05)*	21 (01)*	32 (01)*	20 (01)*	40 (01)*

TABLE 18.--continued.

Contact Variable	Levels					
	1	2	3	4	5	6
Totals						
18 HP Amount	04 (30)	05 (22)	06 (15)	-05 (21)	-05 (23)	07 (11)
19 HP Avoidance	05 (25)	-04 (35)	-05 (28)	01 (80)	01 (81)	-02 (62)
20 HP Income	06 (13)	-02 (62)	01 (76)	03 (52)	09 (03)*	03 (49)
21 HP Alternative	-06 (18)	-01 (77)	-09 (04)*	01 (72)	01 (78)	-09 (04)*
22 MR Amount	-07 (12)	01 (79)	06 (19)	07 (12)	01 (84)	09 (04)*
23 MR Enjoyment	-04 (37)	08 (06)	10 (02)*	21 (0005)*	06 (14)	24 (0005)*
Mult Corr	12 (01)*	11 (01)*	16 (01)*	36 (01)*	20 (01)*	38 (01)*

<sup>a</sup>Significance levels in parentheses.

\*Significant at .05 or less.

\*\*No significance.

through 6); also of the significant correlations, the enjoyment variable accounted for nearly half.

Special education and rehabilitation personnel distinguished themselves significantly from the other groups on five of the six contact variables (Table 27). Parents of the retarded were the next most significantly different group when it came to enjoyment and the opportunity to avoid contact. The parents of the mentally retarded group also indicated they had, by a significant amount, the least contact with the mentally retarded than the other groups. This anomaly is discussed in Chapter VI.

The high correlation between contact and attitudes toward the handicapped (including the mentally retarded) on all Levels of the ABS-MR, supports Hypothesis 3; but since more than one-third of the partial correlations were negative, the direction of the multiple correlations, which are based on both positive and negative partial correlations, are affected.

#### Relating Attitudes and Religiosity

H-4 Persons who score high on stated importance of religion will score low on positive attitudes toward the mentally retarded.

No significant correlations were obtained between a belief in the importance of religion and attitudes toward the retarded (Table 19). Among the four groups, parents of the retarded did differ significantly in the greater importance given to religion (Table 27); but this difference was not

TABLE 19.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and the importance of religion in Colombia.

Level 1	2			3			4			5			6					
	r	N	sig	r	N	sig	r	N	sig	r	N	sig	r	N	sig			
SER	07	33	68	08	33	65	20	33	25	30	33	87	-01	33	97	04	33	80
RST-E	-13	190	06	11	190	11	02	190	75	01	190	92	02	190	83	09	190	23
RST-S	05	214	47	04	214	51	-03	214	65	-08	214	25	04	214	51	00	214	97
PMR	03	99	80	09	99	39	03	99	77	11	99	28	08	99	43	07	99	49

reflected in Table 19 with any significant results. Hypothesis 4 was not confirmed.

H-5 Persons who score high on stated adherence to religion will score low on positive attitudes toward the mentally retarded.

Hypothesis 5 was tested by correlating the degree to which subjects reported their observance of the rules and regulations of their religion and the six Levels of the ABS-MR. Table 20 indicates only two significant correlations to support hypothesis 5: on Level 2 (normative) for parents of the retarded and on Level 3 (moral evaluative) for regular elementary school teachers. There were no significant differences among the groups (Table 26).

#### Relating Attitudes and Demographic Variables

H-6 Amount of education will be positively related to favorable attitudes toward the mentally retarded.

Regular elementary school teachers were the only group to show significant correlations between education and attitude. Hypothesis 6 was supported on Levels 1, 3, and 6 (stereotypic, normative and personal action) (Table 21). Regular elementary school teachers differed significantly from each group in actual amount of education, having significantly less than special education and rehabilitation personnel and regular secondary school teachers, but significantly more than parents of the retarded (Table 27).



TABLE 20.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and adherence to religion in Colombia.

Group	Level 1		2		3		4		5		6							
	r	N	r	N	sig	r	N	sig	r	N	sig	r	N	sig				
SER	-19	33	28	16	33	34	14	33	42	07	33	68	-04	33	81	07	33	68
RST-E	08	190	28	-07	190	34	15	190	04*	-03	190	71	-03	190	66	03	190	65
RST-S	03	213	71	11	213	09	05	213	49	00	213	96	-03	213	69	05	213	47
PMR	06	100	52	20	100	04*	-03	100	76	10	100	32	07	100	48	07	100	44

\*Significant at .05 or less.

TABLE 21.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and amount of education in Colombia.

Group	Level 1		2		3		4		5		6							
	r	N	sig	r	N	sig	r	N	sig	r	N	sig						
SER	19	31	27	-30	31	09	04	31	81	16	31	38	09	31	62	-07	31	71
RST-E	17	176	02*	05	176	54	16	176	03*	11	176	16	11	176	16	19	176	01*
RST-S	-04	190	60	-13	190	07	10	190	16	-10	190	18	-00	190	99	-05	190	49
PMR	09	94	38	-04	94	68	-03	94	75	18	94	07	06	94	57	-05	94	64

\*Significant at .05 or less.

H-7 Age will be positively related to favorable attitudes toward the mentally retarded.

Regular elementary school teachers were the youngest of all groups; they were significantly younger than regular secondary school teachers and parents of the mentally retarded, the latter being significantly the oldest of all (Table 27). Of interest, all correlations between age and favorable attitudes on the part of regular elementary school teachers were negative: including the one significant correlation on Level 4 (hypothetical) (Table 22). Hypothesis 7 was supported on Level 6 (personal action) for the two intermediate age groups: special education and rehabilitation personnel and regular secondary school teachers. Hypothesis 7 was also supported by the finding that men were significantly older than women (at the .0005 level) and responded significantly more favorably toward the mentally retarded on Levels 1, 2, 5, and 6 (stereotypic, normative, feeling, and personal action) (Table 23).

H-8 Women will score higher on positive attitudes toward the mentally retarded than will men.

Hypothesis 8 was not supported. The reverse of what was predicted was true on all Levels of the ABS-MR in respect to content, and on five Levels in respect to intensity (Table 22). Significantly higher scores appeared for Colombian males on Levels 1, 2, 5, and 6 (stereotypic, normative, feeling and personal action) of the content

TABLE 22.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and age in Colombia.

Group	Level 1		2		3		4		5		6								
	r	N	sig	r	N	sig	r	N	sig	r	N	sig							
SER	07	33	70	08	33	63	27	33	12	29	29	33	89	04	33	80	55	33	005*
RST-E	-06	189	40	-05	189	46	-04	189	59	-18	189	01*	-10	189	17	-00	189	93	93
RST-S	05	213	42	08	213	26	-04	213	59	-01	213	91	01	213	91	19	213	005*	005*
PMR	-04	102	69	03	102	77	02	102	87	12	102	24	09	102	34	11	102	25	25

\*Significant at .05 or less.

TABLE 23.--Means, F statistics, and significance levels between females and males on the ABS-MR in Colombia.

Type	Variable	Female (N-319)	Male (N-222)	F	Sig.	Direction
Level	1 Stereotyp	32.50	34.23	15.70	.0005	M > F
	2 Normative	38.90	40.13	4.16	.04	M > F
	3 Moral Ev	46.24	46.63	.60	.44	
	4 Hypothes	44.79	45.70	1.70	.19	
	5 Feeling	41.72	43.97	11.10	.001	M > F
	6 Action	30.81	33.66	29.24	.0005	M > F
Attitude	8 Stereotyp	51.09	51.88	2.31	.12	
	9 Normative	51.74	51.83	.02	.86	
	10 Moral Ev	54.18	54.42	.20	.65	
	11 Hypothes	53.92	53.42	.75	.39	
	12 Feeling	53.43	53.89	.46	.51	
	13 Action	33.88	37.26	16.58	.0005	M > F
	V*	15 Eff Cont	25.57	26.50	5.87	.015
16 Eff Int		29.15	29.13	.002	.92	
K	17 MR Knowl	7.00	6.95	.06	.79	
	18 HP Amt	1.66	1.64	.05	.81	
	19 HP Avoid	2.80	2.94	1.03	.31	
Contact	20 HP Incom	1.32	1.38	1.82	.17	
	21 HP Alter	1.49	1.36	3.13	.07	
	22 MR Amt	1.91	1.81	1.07	.30	
	23 MR Enjoy	2.70	2.81	.85	.36	



variables. Regarding personal action (Level 6) men were significantly more certain (intensity) of their responses.

#### Relating Attitudes and Change Orientation

H-9 Persons who score high on change orientation will score high on positive attitudes toward the mentally retarded.

Multiple correlations between change orientation and each of the six Levels of the ABS-MR were consistently significant; only three multiple correlations were not significant (Table 24). The change orientation questions dealt with self change, child rearing, birth control, automation, political leadership, and rule adherence. An examination of the partial correlations for each of these questions presents a random pattern of significant results in the various groups and in the comparisons between females and males. Among the four groups, there were three significant partial correlations on birth control, but these were all negative. The two significant correlations on child rearing practices were likewise negatively correlated. There were three positive partial correlations on the variable for self change: two on Level 2 (normative) and one on Level 4 (hypothetical). An analysis by sex reveals all significant partial correlations on birth control were negative.

An examination of the results by Levels indicates a fairly even distribution of significant partial correlations

TABLE 24.--Partial and multiple correlations and significance Levels<sup>a</sup> between the six Levels of the ABS-MR and change orientation values in Colombia.

Change Orientation Values	Levels					
	1	2	3	4	5	6
Group: Special Education and Rehabilitation Personnel (SER)						
28 Self Chge	16 (41)	14 (48)	-02 (92)	-22 (26)	16 (42)	10 (61)
29 Child Rrng	-27 (17)	06 (76)	23 (23)	09 (66)	08 (68)	06 (78)
30 Brth Cont	02 (92)	-15 (43)	16 (42)	-02 (90)	-12 (53)	20 (32)
31 Automat'n	07 (70)	02 (93)	-24 (22)	11 (56)	-00 (1.)	-26 (19)
32 Pol Ldrsh	-20 (31)	07 (73)	-22 (26)	-09 (65)	-22 (27)	29 (13)
33 Rule Adhr	-08 (67)	-16 (42)	-02 (91)	-20 (30)	-24 (21)	19 (34)
Mult Corr	36 (05)*	37 (05)*	39 (02)*	33 (05)*	40 (02)*	41 (02)*



TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
Group: Parents of the Mentally Retarded (PMR)						
28 Self Chge	13 (20)	21 (04)*	07 (52)	18 (07)	13 (19)	-01 (90)
29 Child Rrng	-07 (52)	-17 (10)	-14 (16)	-03 (80)	-12 (25)	09 (38)
30 Brth Cont	-21 (04)*	-05 (66)	-21 (04)*	03 (75)	-08 (43)	-12 (24)
31 Automat'n	14 (16)	17 (10)	12 (23)	04 (71)	-07 (47)	-09 (39)
32 Pol Ldrsh	-03 (76)	05 (62)	-02 (82)	05 (64)	05 (59)	00 (97)
33 Rule Adhr	05 (64)	03 (75)	-01 (94)	09 (39)	10 (33)	-19 (06)
Mult Corr	29 (005)*	30 (005)*	27 (005)*	22 (02)*	23 (01)*	28 (005)*

TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
	Group: Regular School Teachers, Elementary (RST-E)					
28 Self Chge	-07 (36)	-05 (50)	-06 (41)	05 (51)	01 (89)	-07 (32)
29 Child Rrng	05 (47)	-02 (74)	06 (41)	12 (10)	03 (71)	05 (50)
30 Brth Cont	03 (67)	-07 (31)	04 (57)	-18 (01)*	-07 (35)	-11 (14)
31 Automat'n	08 (26)	01 (85)	15 (03)*	-03 (73)	03 (65)	06 (41)
32 Pol Ldrsh	16 (03)*	18 (01)*	11 (13)	02 (74)	-03 (72)	01 (84)
33 Rule Adhr	02 (73)	08 (26)	-01 (92)	15 (04)*	14 (06)	11 (14)
Mult Corr	22 (01)*	22 (01)*	24 (01)*	27 (01)*	16 (05)*	19 (01)*

TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
Group: Regular School Teachers, Secondary (RST-S)						
28 Self Chge	04 (58)	18 (01)*	13 (06)	17 (02)*	05 (43)	06 (40)
29 Child Rrng	-17 (02)*	-04 (61)	-03 (71)	10 (89)	-14 (04)*	04 (61)
30 Brth Cont	00 (95)	02 (74)	20 (004)*	03 (69)	03 (65)	-04 (51)
31 Automat'n	09 (21)	-02 (75)	-05 (43)	-18 (01)*	-11 (10)	03 (68)
32 Pol Ldrsh	-11 (10)	05 (50)	09 (21)	-06 (37)	-09 (18)	-09 (22)
33 Rule Adhr	02 (82)	-08 (23)	-01 (86)	13 (06)	06 (37)	-06 (40)
Mult Corr	21 (01)*	21 (01)*	25 (01)*	26 (01)*	22 (01)*	13 (NS)**

TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
	Females					
28 Self Chge	09 (09)	13 (02)*	07 (20)	10 (06)	05 (34)	-01 (87)
29 Chld Rrng	-04 (51)	-03 (55)	-02 (71)	-02 (68)	-04 (45)	-01 (87)
30 Brth Cont	-04 (51)	02 (69)	09 (12)	-01 (82)	-02 (77)	-13 (02)*
31 Automat'n	14 (01)*	08 (17)	13 (02)*	-01 (78)	-00 (91)	07 (21)
32 Pol Ldrsh	03 (59)	10 (07)	09 (09)	-02 (72)	-06 (25)	-11 (06)
33 Rule Adhr	06 (28)	04 (44)	-00 (89)	01 (80)	04 (46)	-08 (15)
Mult Corr	19 (01)*	20 (01)*	21 (01)*	11 (05)*	10 (NS)**	19 (01)*

TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
	Males					
28 Self Chge	-08 (25)	03 (60)	-02 (82)	04 (53)	02 (71)	-02 (75)
29 Chld Rrng	-10 (16)	-08 (25)	01 (93)	07 (29)	-15 (03)*	09 (18)
30 Brth Cont	-06 (36)	-13 (05)*	01 (86)	-17 (01)*	-09 (16)	-05 (42)
31 Automat'n	08 (22)	-05 (44)	-04 (51)	-07 (07)	-11 (10)	-02 (80)
32 Pol Ldrsh	-01 (84)	11 (12)	02 (78)	-07 (31)	-00 (98)	09 (17)
33 Rule Adhr	-01 (86)	-08 (26)	-05 (49)	11 (10)	08 (24)	-09 (16)
Mult Corr	16 (05)*	24 (01)*	07 (NS)**	22 (01)*	25 (01)*	17 (05)*

TABLE 24.--continued.

Change Orientation Values	Levels					
	1	2	3	4	5	6
Totals						
28 Self Chge	04 (39)	09 (03)*	04 (35)	08 (05)*	-05 (23)	07 (11)
29 Child Rrng	-06 (17)	-05 (25)	-01 (83)	01 (75)	01 (81)	-02 (62)
30 Brth Cont	-07 (12)	-07 (12)	04 (30)	-08 (05)*	09 (03)*	03 (49)
31 Automat'n	11 (01)*	02 (67)	05 (23)	-04 (41)	01 (78)	-09 (04)*
32 Pol Ldrsh	00 (89)	10 (02)*	06 (15)	-04 (37)	01 (84)	09 (04)*
33 Rule Adhr	02 (59)	-02 (70)	-03 (46)	05 (28)	06 (14)	24 (0005)*
Mult Corr	13 (01)*	16 (01)*	11 (01)*	13 (01)*	20 (01)*	38 (01)*

<sup>a</sup>Significance levels in parentheses.

\*Significant at .05 or less

\*\*No significance at 05 level.

among the groups. Level 4 had the greatest number of significant correlations (four out of ten); Level 6 (personal action) had none. For females and males, Level 2 contained three out of eight significant partial correlations.

No significant partial correlations appeared in the special education and rehabilitation personnel groups. Regular school teachers, both elementary and secondary, accounted for 10 of the 13 significant partial correlations. Significant partial correlations for females and males were fairly evenly divided. Both females and males showed significant negative correlations towards birth control.

Most notable about the total results was that Level 6 accounted for one-third of the significant partial correlations. The correlation between rule adherence and positive attitudes on this Level was especially significant.

Table 27 indicates that regular secondary school teachers differed significantly and positively from parents of the mentally retarded in respect to child rearing, birth control, political leadership, and rule adherence. Regular secondary school teachers also differed significantly and positively from special education and rehabilitation personnel in respect to child rearing. Regular elementary school teachers differed significantly and positively from parents of the mentally retarded in respect to birth control, political leadership, and rule adherence. They also differed significantly and positively from special education and rehabilitation personnel in respect to rule

adherence. The findings in Table 27 that regular school teachers differed in a significant and positive direction from special education and rehabilitation personnel and parents of the mentally retarded agree with the observation made previously that regular school teachers accounted for the preponderance of significant partial correlations as presented in Table 24.

Although the great proportion of significant multiple correlations between the change orientation variables and favorable attitudes lend support to Hypothesis 9, the fact that multiple correlations were derived from both positive and negative product-moment correlations limits their use as indicators of directionality. A note of caution must be introduced since almost half the partial correlations were negative.

#### Relating Attitudes to Opinions on Educational Aid and Planning

H-10 Agreement with federal and local government aid to education will be positively related to favorable attitudes toward the mentally retarded.

Hypothesis 10 was tested by correlating the ABS-MR with responses regarding increased local and federal aid to education respectively. Table 25 indicates that the aid to education variables correlate higher to ABS-MR attitudes in the parents of the mentally retarded group in which six of the 12 scale Level correlations reached significance.



TABLE 25.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and agreement with local and federal government aid to education.

Group	Educ Aid	Level 1		2		3		4		5		6							
		r	N	sig	r	N	sig	r	N	sig	r	N	sig						
SER	Loc	00	33	98	26	33	12	04	33	80	05	33	76	13	33	46	01	33	94
	Fed	00	33	98	26	33	12	04	33	80	05	33	76	13	33	46	01	33	94
RST-E	Loc	00	189	99	09	189	22	11	189	12	00	189	98	12	189	09	09	189	03*
	Fed	05	188	50	05	188	46	09	188	19	-04	188	57	08	188	30	02	188	82
RST-S	Loc	-13	213	06	-12	213	07	06	213	37	-15	213	03*	-12	213	08	07	213	28
	Fed	-05	213	46	-08	213	24	-01	213	86	-14	213	03*	-09	213	21	15	213	02*
PMR	Loc	20	99	05*	20	99	05*	05	99	60	28	99	005*	08	99	43	14	99	16
	Fed	22	100	02*	26	100	01*	04	100	66	25	100	01*	15	100	14	12	100	24

\*Significant at 05 or less.

In no other group did a pattern emerge as strongly as with the parents of the mentally retarded in which positive correlations were found on Levels 1, 2, and 4 (stereotypic, normative, and hypothetical). The parents of the mentally retarded group, who generally indicated the most favorable attitudes toward the mentally retarded (Table 27), had six out of nine significant correlations appearing in Table 25. The remaining three significant correlations appeared in the group of regular secondary school teachers, but in two cases the correlations were negative.

Table 27 indicates that although parents of the mentally retarded were in agreement with aid to education, the degree of their endorsement was significantly less than the other groups. Males scored significantly higher on federal aid to education than did females (Table 23).

Hypothesis 10 was supported on Levels 1, 2, and 4 by the parents of the mentally retarded group, and federal aid to education was also supported by the regular secondary school teachers group on Level 6 (personal action).

H-11 Agreement with centralized government planning of education will be positively related to favorable attitudes toward the mentally retarded.

There were no significant correlations between agreement with centralized government planning of education and favorable attitudes toward the mentally retarded. All groups obtained a mean and standard deviation which suggests that the majority of respondents endorsed national planning or joint Church and national government planning

TABLE 26.--Sample sizes, correlations, and significance Levels between the six Levels of the ABS-MR and agreement with centralized government planning of education.

Level 1	2			3			4			5			6					
	Group	r	N	sig	r	N	sig	r	N	sig	r	N	sig	r	N	sig		
SER	07	29	73	15	29	41	-05	29	81	-20	29	27	-06	29	75	-11	29	56
RST-E	-07	187	37	-06	187	41	-01	187	91	-02	187	76	-04	187	59	-11	187	11
RST-S	03	202	70	11	202	12	06	202	41	08	202	27	06	202	42	13	202	06
PMR	05	96	61	08	96	43	-04	96	69	03	96	73	06	96	53	-12	96	23

of education. The latter option was added to the Colombian version of the ABS-MR; its effect will be discussed in Chapter VI. Hypothesis 11 was not supported.

#### Relating Attitudes and Group Membership

H-12 The groups will assume the following order with respect to favorable attitudes toward the mentally retarded: parents of the mentally retarded, special education and rehabilitation personnel, regular elementary school teachers, and regular secondary school teachers.

Parents of the mentally retarded revealed the most favorable attitudes, followed by special education and rehabilitation personnel, regular elementary school teachers, and regular secondary school teachers (Table 27). The total correlational significance for the content variables was at the .0005 level. Group differences were significant on all Levels except on Level 3 (moral evaluative), although parents of the mentally retarded obtained a significantly more positive score than did regular elementary school teachers. Parents of the mentally retarded also indicated more significant, favorable attitudes on Levels 1, 2, and 6 (stereotypic, normative, and personal action). On Level 4 (hypothetical) special education and rehabilitation personnel obtained the most significant positive score; on Level 5 (feeling) special education and rehabilitation personnel obtained the highest score, but it was not significantly higher than that of the parents of the mentally retarded group. Of interest is that on the lower end of the

continuum (Levels 1 and 2), special education and rehabilitation personnel indicated the least favorable attitudes. Regular school teachers, both elementary and secondary, generally showed less favorable attitudes toward the mentally retarded throughout the six Levels.

On the intensity variables, parents of the mentally retarded were the least certain of their responses, followed by regular elementary school teachers, regular secondary school teachers, and special education and rehabilitation personnel, who were the most certain.

The results in Table 27 support hypothesis 12.

#### Relating Attitudes and Multidimensionality

H-13 The ABS-MR scale Levels or attitude subuniverse will form a Guttman simplex for each of the sample groups.

Hypothesis 13 was tested by plotting the Level intercorrelation matrices for each sample and subjecting these matrices to Kaiser's (1962) simplex approximation test, as described in Chapter IV, which generates a goodness of fit value, i.e.,  $Q^2$ , for the obtained matrices and then rearranges these matrices into the "best" simplex order for which a  $Q^2$  value is also given. The matrices for the obtained and best ordered  $Q^2$  values are shown in Table 28 for each of the samples. A simplex was considered approximated using the  $Q^2$  criterion of a value greater than .70.

TABLE 27.--Sample Sizes, Means, Standard Deviations, F Statistics, and Significance Levels on the ABS-MR for Four Groups in Colombia.

Type Variable	SER = 1		RST-E = 2		RST-S = 3		PMR = 4		Significant Group Differences	Group										
	N	M	N	M	N	M	N	M		F	Sig.									
1. Stereotypic	20-60	33	30.88	4.74	190	33.92	4.76	214	33.20	34.63	6.22	21	1>1	4>1	4>3	5.64	.001			
2. Normative	20-60	33	37.15	8.25	190	40.05	6.66	214	39.10	41.22	6.92	21	1>1	4>1	4>3	4.16	.006			
3. Moral Evaluative	20-60	33	46.30	5.45	190	45.65	5.47	214	46.23	47.37	5.33	4>2				2.04	.105			
4. Hypothetical	20-60	33	51.42	5.17	190	41.75	8.49	214	40.50	46.90	7.28	1>2	1>3	1>4	4>2	4>3	29.82	.0005		
5. Feeling	20-60	33	44.67	7.51	190	41.31	6.53	214	40.99	43.42	9.14	1>2	1>3	1>4	4>2	4>3	4.87	.003		
6. Action	20-57	33	34.30	5.56	190	29.47	5.62	214	29.48	34.38	6.69	1>2	1>3	4>2	4>3	24.26	.0005			
7.																				
8. Stereotypic	20-60	33	51.91	8.16	190	51.87	4.98	214	53.15	5.58	102	48.57	7.19	1>4	3>2	2>4	3>4	18.26	.0005	
9. Normative	20-60	33	53.36	5.92	190	51.80	6.60	214	53.18	6.49	102	48.79	8.57	1>4	3>2	2>4	3>4	14.07	.0005	
10. Moral Evaluative	20-60	33	55.12	3.95	190	54.12	5.98	214	55.61	4.76	102	52.26	7.42	1>4	3>2	2>4	3>4	9.56	.0005	
11. Hypothetical	20-60	33	56.03	3.99	190	53.65	6.73	214	54.46	5.77	102	50.78	8.04	1>2	1>4	2>4	3>4	7.88	.0005	
12. Feeling	20-60	33	55.39	7.08	190	54.22	6.35	214	54.49	7.50	101	50.83	9.38	1>4	2>4	3>4	9.22	.0005		
13. Action	20-80	33	42.18	8.78	189	31.08	8.40	214	31.25	9.16	101	36.84	11.29	1>2	1>3	1>4	4>2	7.77	.0005	
														1>2	1>3	1>4	2>4	3>4	22.23	.0005
														1>2	1>3	1>4	2>4	3>4	10.56	.0005
15. Efficacy, Content	9-36	33	26.06	3.82	190	26.67	3.65	213	26.88	3.75	99	24.99	4.10	1>4	2>4	3>4	8.45	.0005		
16. Efficacy, Intensity	9-36	33	29.94	4.49	189	29.51	4.69	211	30.56	4.70	100	27.69	5.43	1>4	2>4	3>4	6.40	.0005		
17. MR Knowledge	1-7	33	6.88	2.45	189	7.33	2.00	212	7.62	2.09	100	6.33	2.21	2>4	3>4	8.89	.0005			
18. HP Amount	1-5	33	4.33	1.29	165	1.84	.87	182	1.73	.82	92	3.79	1.64	1>3	2.08	.101				
19. HP Avoidance	1-5	31	3.35	1.87	169	2.06	1.33	180	2.19	1.39	89	2.09	1.64	1>2	1>3	4>2	4>3	48.67	.0005	
20. HP Income	1-5	31	2.84	1.61	169	1.14	.41	191	1.13	.38	91	1.03	.18	1>2	1>3	1>4	66.29	.0005		
21. HP Alternative	1-5	32	4.03	1.40	167	1.26	.82	184	1.23	.73	92	1.08	.47	1>2	1>3	1>4	37.78	.0005		
22. MR Amount	1-5	33	4.24	1.25	176	1.36	1.04	197	1.46	1.21	92	4.04	1.54	1>2	1>3	1>4	63.06	.0005		
23. MR Enjoyment	1-5	33	4.57	.70	168	1.73	1.16	175	1.92	1.20	95	3.52	1.29	1>2	1>3	1>4	4>2	86.57	.0005	
24. Age	1-5	33	2.33	.92	189	2.09	.85	213	2.72	1.04	102	3.29	1.02	4>1	3>2	4>2	4>3	38.30	.0005	
25. Educational Amount	1-5	31	4.39	1.36	176	3.50	.68	190	4.14	.88	94	1.85	1.05	1>2	1>4	3>2	2>4	55.26	.0005	
26. Religion, Importance	1-5	33	3.52	1.50	190	3.65	1.38	214	3.51	1.40	99	4.02	1.24	4>3	1.70	.164				
27. Religion, Adherence	1-5	33	3.12	1.56	190	1.96	.54	213	2.02	.70	100	3.53	1.42	.92	.434					
28. Self Change	1-4	32	2.41	.95	189	2.48	.92	213	2.52	.96	100	2.43	.99	.42	.740					
29. Child Rearing	1-4	31	3.26	.99	190	3.34	.87	210	3.49	.74	101	3.16	.89	3>1	3>4	3.28	.020			
30. Birth Control	1-4	32	3.37	.79	190	3.26	.76	211	3.36	.77	102	2.98	.84							
31. Automation	1-4	30	3.50	.63	184	3.25	.93	212	3.22	.97	100	3.26	.93							
32. Political Leadership	1-4	32	2.53	1.24	188	2.72	1.20	212	2.73	1.20	100	2.44	1.13	2>4	3>4	2.15	.092			
33. Rule Adherence	1-4	32	2.50	1.05	189	2.88	1.10	210	2.81	1.13	95	2.29	1.04	2>1	2>4	3>4	10.11	.0005		
34. Local Aid	1-4	33	3.58	.56	189	3.50	.83	213	3.57	.85	99	3.28	1.01	1>4	2>4	3>4	4.04	.008		
35. Federal Aid	1-4	33	3.58	.56	188	3.39	.89	213	3.45	.93	100	3.26	1.01	1>4	2>4	1.98	.115			
36. Educational Planning	1-5	29	4.41	.73	187	4.41	.83	202	4.20	.77	96	4.35	1.04	2>1	2>3	3.34	.019			

TABLE 28.--Simplex results for research groups on the ABS-MR in Colombia.

	Original Matrices						Best Ordered Matrices					
	1	2	3	4	5	6	1	2	3	4	5	6
Special Education & Rehabilitation	1. --	.005	--	--	Q <sup>2</sup> = .60		--	--	--	BQ <sup>2</sup> = .92		
	2. .21	.006	--	--			.07	--	--			
	3. .20	.18	.30	--			.08	.15	--			
	4. .13	.07	.03	.28	--		.18	.28	.18	--		
	5. .04	.08	.23	.18	.15	--	.006	.03	.23	.30	--	
	6. --	--	--	--	--		.005	.13	.04	.20	.21	--
Regular Elementary	1. --	.14	--	--	Q <sup>2</sup> = .85		--	--	--	BQ <sup>2</sup> = .86		
	2. .23	.46	--	--			.23	--	--			
	3. .25	.45	.49	--			.14	.46	--			
	4. .23	.31	.37	.46	--		.25	.49	.45	--		
	5. .21	.18	.19	.34	.24	--	.23	.37	.31	.46	--	
	6. --	--	--	--	--		.21	.19	.18	.34	.24	--
Regular Secondary School	1. --	.33	--	--	Q <sup>2</sup> = .86		--	--	--	BQ <sup>2</sup> = .87		
	2. .05	.36	--	--			.33	--	--			
	3. .13	.36	.35	--			.13	.36	--			
	4. .24	.08	.16	.26	--		.05	.33	.35	--		
	5. .07	.10	.08	.12	.17	--	.24	.08	.26	.16	--	
	6. --	--	--	--	--		.07	.10	.12	.08	.17	--
Parents of the Mentally Retarded	1. --	.38	--	--	Q <sup>2</sup> = .85		--	--	--	BQ <sup>2</sup> = .93		
	2. .37	.32	--	--			.37	--	--			
	3. .28	.30	.26	--			.25	.35	--			
	4. .36	.25	.25	.31	--		.33	.38	.30	--		
	5. .10	.25	.08	.31	.11	--	.26	.28	.31	.32	--	
	6. --	--	--	--	--		.08	.10	.11	.23	.31	--

Another test, used in Hamersma's (1969) study (see Chapter IV), allowed up to six reversals out of a possible 15 correlations comprising one-half of a six by six Level correlational matrix. According to a simplex model, each entry in these matrices has an ascending or descending order in relation to the other entries, specified by row and column. Ideally, correlations between the six Levels should decrease in relation to the number of steps two Levels are removed from each other; in other words, Level 1 should correlate higher with Level 2 than with Level 3. Thus there is the possibility of 15 reversals, or errors, in each simplex, where an entry can be out of place.

The  $Q^2$  value for the special education and rehabilitation personnel original matrix was .60 compared with a  $BQ^2$  value of .92. The original special education and rehabilitation matrix had nine reversals among the Level correlations. The special education and rehabilitation  $BQ^2$  matrix with its seven reversals did not meet approximation requirements according to the last-mentioned criterion.

The  $Q^2$  value for the regular elementary school teachers original matrix was .86; there was no essential increase in value for the  $BQ^2$  matrix. The number of reversals increased from four to seven respectively.

The  $Q^2$  value for the regular secondary school teachers original matrix was .86. The  $BQ^2$  matrix value was .87, an increase of .01 over the original matrix. This



increase resulted in a better order, with the number of reversals reduced from seven to five.

The  $Q^2$  value of .85 for the original parents of the mentally retarded matrix was .08 less than the  $BQ^2$  matrix value of .93. The original matrix had seven reversals while the best ordered had four.

No particular pattern of correlations emerged as Harrelson (1970) noted in the German simplexes where correlations between the hypothetical and personal action Levels were greater than between these and the intervening feeling Level.

Using the criterion of a  $BQ^2$  value greater than .70, all groups approximated simplexes. Using the criterion of no more than six reversals, only the regular secondary school teachers and the parents of the mentally retarded approximated simplexes. With either criterion, Hypothesis 13 was supported.

## CHAPTER VI

### SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter summarizes the purpose and methodology, interprets the results stated in Chapter V, and suggests implications and recommendations for further research.

#### Summary of the Study

##### Purpose

Two broad goals were undertaken with this study: (a) to investigate six Levels of attitudes toward the mentally retarded among four groups, relating these attitudes to values, knowledge, contact, and demographic determinants, and (b) to test the greater precision and predictive ability of a new type of instrument, constructed on the basis of Guttman facet theory. Thirteen hypotheses concretized the above aims. A related goal of this study, was the selection of a Colombian population, representing a transitional society, to provide useful comparisons with other countries either more industrialized or less developed. Treatment of cross-cultural comparisons, however, was beyond the stated scope of this study.

### Review of Literature

The review of literature is summarized in the conclusion of Chapter II. No more will be restated here other than the fact that no study was found which used facet analysis, as developed by Guttman, in the construction of an attitude scale. The inconsistent and conflicting results from other studies are believed due to the lack of a conceptualization of attitudes as a multi-level phenomenon and a lack of a method for systematically tapping all areas of a given attitude-universe.

### Instrumentation

The ABS-MR was constructed according to Guttman's facet theory, which maintains that an attitude-universe can be substructured into components which are systematically related by the number of identical conceptual elements they hold in common. Facet design permits the construction of a scale by a semantic, logical, a priori method instead of by intuition or the use of judges.

Guttman defined attitude as "a delimited totality of behavior with respect to something" and proposed that three semantic facets, each containing two elements could account for an attitude universe of eight combinations or profiles. Only four combinations, however, were semantically viable. Each facet contained a weak and a strong element and the four combinations or attitude Levels showed a progression from a weak to a strong form of behavior with

one additional strong element appearing on each Level. Jordan expanded Guttman's paradigm to five facets to form a six-Level attitude structure. Each facet contained a weak and a strong element and each Level contained one more strong element than its predecessor. Jordan's six Levels were (a) stereotypic, (b) normative, (c) moral evaluative, (d) hypothetical, (e) personal feelings, and (f) personal action. These subject-object facets are termed joint<sup>1</sup> structure while additional facets accounting for specific item content are termed lateral structure. A six-Level attitude scale measuring attitudes toward the mentally retarded was constructed by Jordan (the ABS-MR) from a mapping sentence (Table 8) containing the joint and lateral structure facets so that every item corresponded to a combination of facet elements in the mapping sentence. The final scale contained a total of 20 items on each Level and the content measure of each item was followed by an intensity measure. Also included in the questionnaire were measures of (a) demographic variables, (b) change orientation, (c) contact with the mentally retarded, (d) knowledge about mental retardation, (e) efficacy--a scale designed to measure one's sense of control over his environment, and (f) attitudes on educational aid and planning.

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<sup>1</sup>In Jordan's (1968) original work the term conjoint and disjoint were used.

Responses to each item were ordered so that the higher the number for a given alternative, the more positive was the attitude or pronounced was the value, amount of information, or experience. Occasional shifts in item directionality appeared to deter response sets; that is, a sequence of responses like (1) less, (2) about the same, (3) more would be reversed. The correspondence, however, between the number and attitude direction was maintained.

Thirteen research hypotheses were tested, derived from previous research in studies of the physically handicapped.

The instrument used in this study was translated into Spanish, in cooperation with Jordan and the writer, by nationals who were bilingually fluent and knowledgeable in the field of mental retardation and educational psychology.

### Design and Analysis

Using the "known group" method, the following samples were selected from four Colombian groups: (a) 191 regular elementary school teachers, (b) 214 regular secondary school teachers, (c) 103 parents of the mentally retarded, and (d) 37 special education and rehabilitation personnel; because of incomplete questionnaires, the figures for these samples were sometimes less according to the computer procedures employed. Both educational groups were drawn from the city of Cali which served as

the principal focus of the research. The sample of parents of the retarded was obtained through three institutions: in Cali, Bogotá, and Cúcuta. Special education and rehabilitation personnel were contacted in several Colombian cities, but the majority were from Cali and Bogotá. Of the total sample, approximately three-fifths were women.

The data obtained were analyzed by computer at Michigan State University. Kuder-Richardson type reliabilities were obtained for each of the sample groups on each of the ABS-MR Levels. Product-moment, partial, and multiple correlation procedures were used to test the various hypotheses, as were analysis of variance procedures and a multiple means test. In addition, a simplex approximation test was used which produced a descriptive statistic ( $Q^2$ ) for obtained attitude Level matrices and matrices reordered into a "best" simplex order, despite some obvious limitations since no better alternative procedure was available. The .05 level of significance was used to accept or reject the 13 research hypotheses.

### Discussion

In this section the results from the testing of each hypothesis are summarized and discussed.

#### Relating Attitudes and Efficacy

H-1 Persons who score high in efficacy will score high in positive attitudes toward the mentally retarded on each of the six Levels.

Only partial and weak support was found for the value that persons reporting a sense of control over their environment (hence, presumably more confident in dealing with the mentally retarded) would indicate more favorable attitudes. Only one significant correlation occurred, and it does not seem surprising that it was for the special education and rehabilitation group--the most trained and specialized of all the groups--on the Level of personal action.

Parents of the retarded had higher correlations than the other groups in general, but there were not significant correlations between efficacy and attitudes. Among all groups, the parents ranked first in having favorable attitudes toward the retarded, but they were also least certain of their attitudes. They also scored lowest on the efficacy variable. Hence, the results for parents suggest that they adhere to a fatalistic attitude.

Efficacy, as a predictor of attitudes toward the mentally retarded was not a clear indicator.

#### Relating Attitudes and Knowledge

H-2 Persons who score high in knowledge about mental retardation will score high in positive attitudes toward the mentally retarded on each of the six Levels.

Support for Hypothesis 2 was very limited. The lack of any preponderant relationship supports Jordan's contention that attitudes have an affective-value-contractual base rather than a cognitive one. The results also

are consistent with the conclusions of Begab (Chapter II) that knowledge and "action tendencies" do not correlate except when affective learning experiences are involved. In the case of the special education and rehabilitation personnel, several correlations were negative. The three positive significant correlations for regular elementary school teachers and regular secondary school teachers suggest the anticipation of teachers to use acquired information in behalf of mentally retarded students. None of the significant correlations were at the behavioral or personal action Level.

#### Relating Attitudes and Contact

H-3 High frequency of contact with mentally regarded persons will be associated with favorable attitudes toward the mentally retarded on each of the Levels of the ABS-MR if high frequency is concurrent with (a) alternative rewarding opportunities, (b) ease of avoidance of the contact, and (c) enjoyment of the contact.

Multiple correlations between the contact variables and positive attitudes toward the handicapped (including the mentally retarded) strongly supported this hypothesis, although significant partial correlations on individual variables were limited and scattered. The variable for enjoyment obtained the highest number of significant partial correlations, thus emphasizing that favorable attitudes occur when the contact is enjoyed. Significant partial correlations were indicated for the variables on alternatives and avoidance, but the results did not support their



importance; significant results for alternatives were negative and the one significant correlation for avoidance occurred only on the stereotypic Level.

It is interesting to note that regular school teachers (primary and secondary) registered 75 per cent of the significant partial correlations; it would seem that the contact that regular school teachers have with the mentally retarded might be more voluntary than for special education and rehabilitation personnel. Nearly 60 per cent on the partial correlations for the special education and rehabilitation group were negative; the two significant positive correlations appeared for the variables on enjoyment and avoidance. That parents of the mentally retarded had no significant partial correlations and two non-significant multiple correlations on the hypothetical and affective Levels suggest that parents would have the least voluntary relationship among the four groups.

Females are apparently more prone than males to consider stereotypes, norms, and obligations in terms of their contacts with the handicapped. All the significant positive partial correlations for males were on the enjoyment variable. Other than this difference, the results indicated no remarkable difference between men and women.

An important anomaly, briefly observed in Chapter V, was that parents of the mentally retarded reported having the least amount of contact with the retarded. This discrepancy was discovered to be due to the analysis of

variance procedure used for this hypothesis which treated missing responses as valid negative observations. Such statistical treatment, pertinent to other irregularities as well, may not only account for some of the negative partial correlations, but suggests that the overall correlations between the contact variables and attitudes may very well have been more significant than indicated.

#### Relating Attitudes and Religiosity

H-4 Persons who score high on stated importance of religion will score low on positive attitudes toward the mentally retarded.

H-5 Persons who score high on stated adherence to religion will score low on positive attitudes toward the mentally retarded.

The hypothesis linking religiosity with unfavorable attitudes toward the retarded was not supported. No significant correlations occurred respecting the importance of religion; and the two significant correlations between adherence and attitudes were positive rather than negative.

The underlying assumption of these hypotheses was that persons assigning a high priority to religion, and faithful to its rites and teachings, would be more rigid and closed and less inclined to accept deviations from conventional norms. Also assumed was that the relationship between these variables would be linear. Allport (1967) found a curvilinear relationship between religiosity and tolerance, with the extremes of the religious continuum being more tolerant than the middle. Hence, it is reasonable

to assume that religious attitudes comprise a multidimensional realm.

#### Relating Attitudes and Demographic Variables

H-6 Amount of education will be positively related to favorable attitudes toward the mentally retarded.

The data indicate that education does not seem to be a predictor of positive attitudes toward the mentally retarded. Although there were significant positive correlations for elementary school teachers, this group had less education than did secondary school teachers and special education and rehabilitation personnel. - It should be pointed out that the Colombian questionnaire increased the number of responses for the amount of education variable to include a post graduate degree. Refinement of this variable was recommended by Poulos (1970), but apparently a somewhat finer breakdown resulted in no appreciably significant results.

H-7 Age will be positively related to favorable attitudes toward the mentally retarded.

The relationship between increasing age and favorable attitudes toward the mentally retarded was partially supported by these three observations: (a) two positive, significant correlations on Level 6, (b) the contrast between elementary and secondary regular school teachers, the former being a significantly younger group with negative correlations on all Levels, and (c) the findings that men

were significantly older than women and responded significantly more favorably on several Levels.

That the only positive, significant correlations among the four groups occurred on Level 6 for special education and rehabilitation personnel and regular secondary school teachers suggests that these groups have had more time for greater contact with the mentally retarded than have had regular elementary school teachers. A review of Table 18 does indicate that regular secondary school teachers, at least, had three positive, significant correlations for Variable 22 (amount of contact with the mentally retarded). This explanation, if true, however, would restrict the impact of contact to reported behavior or the personal action Level.

An alternate explanation would involve the age of the retardate himself: as his age increases, so would his acceptance from significant others. Hence, secondary school teachers would be more accepting than elementary.

Either explanation, as well as the hypothesis itself, is weakened, however, by the lack of corroborating results from parents of the mentally retarded. What makes this group so relevant is that they were significantly the oldest and had significantly more favorable attitudes than both groups of regular school teachers (Table 27). Further testing and analysis, with possible inclusion of demographic items referring to the ages of the mentally

retarded, would hopefully clarify the lack of significant responses for this group.

H-8 Women will score higher on positive attitudes toward the mentally retarded than will men.

Not only was the hypothesis rejected, but its reverse was strongly supported. Colombian men have significantly more favorable attitudes toward the mentally retarded than do women. To a somewhat lesser degree, this is what Morin (1970) found to be true for Mexican-American males. It is tempting to speculate that a cultural factor is operating. Possibly the cultural expectation that men are by nature more masterful and protective (aspects of machismo) relieves them of the more custodial (servile) requirements in caring for the disabled; hence, their relationships would develop more through choice and enjoyment. Women, on the other hand, may see "caring" as entailing numerous unpleasant tasks and duties.

#### Relating Attitudes and Change Orientation

H-9 Persons who score high on change orientation will score high on positive attitudes toward the mentally retarded.

Hypothesis 9 was superficially supported despite the results of overwhelming significant multiple correlations by groups, sex, and on totals. An examination of the partial correlations, however, leads to considerable reservations for two reasons: (a) the presence of numerous negative correlations obfuscating directionality, and

(b) the irregular patterning of significant positive correlations.

No one variable, or group of variables, were distinguished from the rest in the number of significant, positive partial correlations obtained. Analysis by Levels indicated only one significant, positive partial correlation for Level 5 and none for Level 6 (except for the table on totals). Hence, there is virtually no significant correlation between change orientation and feelings or reported personal action toward the mentally retarded. The table on totals for partial correlations did show a number of significant partial correlations, especially on Level 6, but these totals were composed from both negative and positive subtotals. Analysis by groups indicated that regular school teachers did account for a substantial preponderance of significant partial correlations, but 40 per cent of these were negative.

Perhaps the most noteworthy finding was the contrast by sex. All significant partial correlations for men were negative, but females had four out of five positive significant partial correlations. It may be that the attitudes women hold toward change in themselves--and more so, in the environment--serve as more useful predictors of attitudes toward the mentally retarded than for men. It is of interest, however, that women indicated a significant negativity on the issue of birth control. For future investigations, it may be more useful to treat change of

orientation toward personal issues and the external environment (e.g., automation, political leadership) separately.

While significant partial correlations between the change of orientation variables and the various Levels of the ABS-MR were noteworthy, lack of any consistent pattern indicated an indeterminate multidimensional relationship-- a problem similarly found in the studies of Jordan (1968), Harrelson (1969), and Poulos (1970). Hypothesis 9 was only partially supported.

H-10 Agreement with federal and local government aid to education will be positively related to favorable attitudes toward the mentally retarded.

Hypothesis 10 was scarcely supported by seven significant positive correlations out of a possible 48. The most salient feature was that the parents of the mentally retarded accounted for six of the significant positive correlations. Why these correlations appeared on the impersonal Levels, is difficult to say. One explanation is that parents as a group were indifferent regarding the sources of funding education. Parents' endorsement of government aid to education was significantly the least of all groups. Hence, education would be valued as a "good thing" in a stereotypic or normative sense rather than as an immediate, debatable, live issue. Since special education and rehabilitation personnel and regular school teachers were significantly more concerned about government funding, but showed virtually no significant positive correlations, the

multidimensionality of this hypothesis is supported--with concern for education and sources of funding constituting at least two important aspects.

H-11 Agreement with centralized government planning of education will be positively related to favorable attitudes toward the mentally retarded.

Hypothesis 11 was not supported for any group. The absence of support may best be explained by the failure of the question to account for the differences in the educational system of Colombia from that of the United States. A clear-cut dichotomy between local and centralized government planning of education does not exist in Colombia. Most schools are Church affiliated, locally run, but nationally subsidized or funded. It was necessary to add a fifth alternative to the questionnaire responses in the Colombian version. ("Educational planning should be jointly directed by the Church and the national government.") This alternative was unfortunately placed among the others so that scoring (as indicated by the means in Table 28 for variable 36), and consequently interpretation, were adversely affected.

#### Relating Attitudes and Group Membership

H-12 The groups will assume the following order with respect to favorable attitudes toward the mentally retarded:  
parents of the mentally retarded >  
special education and rehabilitation  
personnel > regular elementary school  
teachers > and regular secondary  
school teachers.



Jordan (1968), in his 11-nation study on attitudes toward the physically disabled, found special education and rehabilitation personnel to have the most favorable attitudes. This group was followed by regular school teachers. Jordan's research did not, however, contain a sample from the parents of the mentally retarded. Since parents would be expected to have the most contact with the retarded, it was reasoned they would likewise be most favorably disposed. That their relationship with the retarded would involve the least choice of all groups would presumably modify their degree of enjoyment and hence, favorable disposition. These modifications did in fact occur.

While parents of the mentally retarded were more sensitive to the attitudes of others (stereotypic and normative Levels), were more concerned about what ought to be done for or with the retarded (moral evaluative Level), and reported most favorably on their actual experiences (personal action Level); they scored second to special education and rehabilitation personnel on positive feelings (feeling Level). Of interest was that parents of the mentally retarded were least certain of all groups about the responses they gave. This contrasts with the certainty indicated by Mexican-Americans as researched by Morin (1969) For the Colombian sample this lack of certainty was best reflected at the hypothetical Level on which parents had to decide what they would do in various situations in respect to the retarded. On this Level, special education

and rehabilitation personnel indicated significantly more positive attitudes.

Both elementary and secondary regular school teachers scored the lowest. There were no significant differences between the two groups except on one intensity level. Regular school teachers would be expected to have limited contact with the retarded; and when they did, would have less choice.

Hypothesis 12 that the favorable attitudes of PMR > SER > RST-E > RST-S was strongly supported. The findings corroborate the important contribution which parents of the mentally retarded have made in Colombia.

H-13 The ABS-MR scale Levels or attitude sub-universes will form a Guttman simplex for each of the sample groups.

Hypothesis 13 was generally supported. Using the criterion of a  $Q^2$  value of .70 or greater, all groups approximated simplexes. Using a visual criterion that the correlations between contiguous Levels would be greater than those more distant (contiguity hypothesis), only the secondary regular school teachers and parents of the mentally retarded fulfilled the requirement of less than seven reversals. For the special education and rehabilitation group there is some question as to the value for the obtained and best ordered matrices. The obtained  $Q^2$  of .60 and the seven reversals for special education and rehabilitation personnel may be accounted for by the fact

that this group was by far the smallest (N=37) and the least homogeneous--ranging from physicians to teaching aides.

Despite the limitations of the simplex approximation tests as Harrelson (1969) pointed out (lack of a perfect simplex criterion, lack of a test of significance, and awkwardness in dealing with negative correlations), they are currently the best measures available. The simplex approximation tests as applied to the findings in Table 28 provide construct validity for the ABS-MR and promote the use of Guttman facetization as a more effective and rewarding method for instrument construction.

#### Conclusion and Implications

An attempt was made in this chapter to interpret the comparison of results with the expectations of this investigation. Results were too negligible to support any significant relationships between attitudes toward the retarded and the independent variables of efficacy, knowledge about mental retardation, religiosity, amount of education, and educational aid and planning (Hypotheses 1, 2, 4, 5, 6, 10, and 11). Only partial support was obtained for change orientation values (Hypothesis 9); support was somewhat stronger for the contact variables (Hypothesis 3). In both cases the indeterminate results were believed due

to the multidimensionality of the variables, as possibly in the cases of Hypotheses 4, 5, 10, and 11. The marked disconfirmation of Hypothesis 8 which related feminity and favorable attitudes was compensated by an unexpected and interesting reversal. That Colombian men indicated more favorable attitudes (as did Mexican-American men) stimulates any number of questions that invite further research. The variable on age (Hypothesis 7) was partially supported and complicates the sex-difference findings since the sample of men were significantly older than the women.

Thus far, the aforementioned hypotheses can be sorted into four broad categories: demographic, values, knowledge, and contact. The category of least consequence seems to be that dealing with knowledge or information about mental retardation. Hence, the lack of relationship can be significant in itself.

The predicted ranking of the four Colombian subgroups (Hypothesis 12) lends considerable support to the assumptions on which a number of hypotheses were based. For example, the contact variable provided a rationale for ordering the four groups sampled. The quantity and/or quality of contact affected attitudes favorably, and knowledge or information about the attitude object apparently did not.

In addition, the implication from Hypothesis 12 corroborates the important contribution which parents of the mentally retarded have made in Colombia. The establishment of institutions for the retarded throughout Colombia, indeed the movement for the mentally retarded as a whole, was spurred by the parents at the grass roots level. The findings also suggest that special education and rehabilitation personnel, administrators, or teachers not overlook the impact of parents of the mentally retarded in the implementation and maintenance of special programs for the retarded.

Besides seeking to determine the relationship between various categories of variables and attitudes, a very important objective was methodological--to establish the usefulness and desirability of Guttman facet analysis in the construction of an instrument and in the interpretation and validation of results. The strong support for Hypothesis 13 confirms the multidimensionality of the six Levels of the ABS-MR and reinforces the importance of the "structured" concept into attitude surveys, namely, that attitudes are multidimensional and can be structured or ordered progressively from stereotypic attitudes to actual personal behavior.

To conceptualize a framework of "Levels" for attitudes is new. The old tendency persists to relate a given

variable to a subject's attitude-in-general rather than to a specific attitude Level. This writer believes Guttman facet analysis requires time and practice for its unique advantages to be apprehended and valued.

#### Recommendations

The following recommendations are presented with the intent of improving future research:

1. The ABS-MR should be halved, if possible, when administered to respondents in undeveloped or transitional nations. The average amount of time required for Colombians to answer 300 items was two hours; many took longer--an entire morning or afternoon--as an extensive multiple choice questionnaire was excitingly novel and puzzling to them. This researcher observed that after an hour, some respondents began encircling responses in a mechanical and careless fashion. Poulos (1970) noted that respondents did not object to the length of the instrument, but the familiarity which respondents have towards objective testing is a factor of considerable importance for future cross-cultural investigations.
2. Respondents in the more traditional societies (undeveloped and transitional) require special instructions. (See Appendix B and D, Instructions and Explanations for the ABS-MR.) It is important to emphasize that there are no "right" or "wrong"

answers, but that what is sought is their beliefs, feelings, and reported actions. Moreover, they are expected to choose, among the listed alternative responses, the best approximations to their beliefs, feelings, and experiences, and not to ignore items because the alternatives do not apply perfectly. Although perhaps surprising to the sophisticated test-taker, this writer found it necessary to instruct respondents to select only one response to an item, and not to confer with others while completing the questionnaires. Motivation can be enhanced by providing an explanation of the purpose and potential benefits of the research.

3. Representative sampling should be carried out whenever possible in future research. Less developed nations do present special difficulties which must be considered. For instance, in Colombia, special education and rehabilitation personnel and parents of the mentally retarded belonging to identifiable organizations were relatively few in number and scattered; and regionalism, being more marked in less developed countries, is a costly challenge to meet--there were eight distinctive regions in Colombia. However, as Morin pointed out, problems of subject selection for other groups (regular school teachers, parents of the non-retarded,

or businessmen) can be eased through tactful contact with educational institutions, government officials, and business organizations.

4. It would be desirable to provide a more refined classification of the attitude object: the mentally retarded. Special education and rehabilitation personnel, as well as other respondents, often objected to the broad designation. An examination of subjects' comments written on copies of their questionnaires (Appendix F) reveals that one of the most frequent qualifications to the responses was "Depends on the degree of retardation."

Describing the mentally retarded according to the degree of retardation as determined by IQ testing and classifying them as mild, moderate, severe, and profound; or educable, trainable, or custodial is one of the widely-used systems, but not the only. The retarded can be classified according to etiology, for example, medical (congenital and acquired impairment), emotional, and cultural or social. An original criterion would be the age of the retardate. Results of some of the data suggest such an interpretation as being a possibly relevant factor affecting attitudes. Still another method of describing and classifying the mentally retarded is in behavioral terms (for example: can guard himself against common physical dangers, can communicate, can be taught various



skills, can be taught to support self economically, etc.). Behavioral categories have been developed by the American Psychiatric Association and various associations for the retarded.

What the writer would like to see done in subsequent attitude research on the mentally retarded is either a greater delimitation of the attitude object (for instance, a restriction to just trainables) or a more sweeping revision of the instrument to permit the analysis of attitude differences among the several retardation categories. Regarding systems of classification, the writer would suggest a combination: labeling based on IQ testing (educable, trainable, or severe) supported by behavioral descriptions. An example of a developmental or behavioral paradigm is included in Appendix H.

5. The instrument should allow for more demographic information; for instance, occupational category, area of residence, and specific relationship to the retarded. Other data about the retarded would be desirable, for example, the ages of the retarded with whom the respondent comes in contact.
6. It would be desirable to modify several hypotheses. The change orientation variables (Hypothesis 9) can be broken into two hypotheses: one dealing with personal issues (e.g., self-change) and the other with environmental issues (e.g., automation).

- Likewise, the variable on aid to education (Hypothesis 10) can be dichotomized according to one's belief in the importance of education and concern about sources of funding. The latter factor should include alternatives appropriate to the national peculiarities for supporting education. (Hypothesis 11). "Religion" might best be treated as a cluster of beliefs and traditions which should be conceptualized more carefully before being retested (refer to Hypotheses 4 and 5).
7. Replication would not only serve to test the stability and dependability of the ABS-MR, but promote more extensive and precise investigation of issues raised thus far. Among the most provocative, in this researcher's opinion, is whether the more favorable attitudes of Colombia men towards the retarded are more a function of sex or age. How quantity and quality of contact relate can transmute a number of speculations into a more integrated theory. Should significant patterns of other Hispanic nations parallel the Colombian results, important insights into Hispanic culture would be a likely gain.

## APPENDICES

APPENDIX A

COMBINATIONS OF FIVE TWO-ELEMENT FACETS  
AND BASIS OF ELIMINATION

(Table 29)

TABLE 29.--Combinations of five two-element facets<sup>a</sup> and basis of elimination.

No. <sup>b</sup>	Combinations		Facets and Subscripts <sup>c</sup>					Basis of Elimination <sup>d</sup>
	In Table 3	In Table 4	A	B	C	D	E	
1	1	Level 1	o	b	o	c	h	
2	2	Level 2	o	b	o	i	h	
3	3	--	i	b	o	c	h	
4	4	Level 3	i	b	o	i	h	
5	5	--	o	b	m	c	h	
6	6	--	o	b	m	i	h	
7	7	--	i	b	m	c	h	
8	8	Level 4	i	b	m	i	h	
9	-	--	o	e	o	c	h	2
10	9	--	o	e	o	i	h	
11	--	--	i	e	o	c	h	1 2
12	--	--	i	e	o	i	h	1
13	--	--	o	e	m	c	h	1 2
14	--	--	o	e	m	i	h	1
15	--	--	i	e	m	c	h	2
16	10	Level 5	i	e	m	i	h	
17	--	--	o	b	o	c	p	3 4
18	--	--	o	b	o	i	p	4
19	--	--	i	b	o	c	p	3 4
20	--	--	i	b	o	i	p	4
21	--	--	o	b	m	c	p	3 4
22	--	--	o	b	m	i	p	4
23	--	--	i	b	m	c	p	3 4
24	--	--	i	b	m	i	p	4
25	--	--	o	e	o	c	p	2 3
26	11	--	o	e	o	i	p	
27	--	--	i	e	o	c	p	1 2 3
28	--	--	i	e	o	i	p	1
29	--	--	o	e	m	c	p	1 2 3
30	--	--	o	e	m	i	p	1
31	--	--	i	e	m	c	p	2 3
32	12	Level 6	i	e	m	i	p	

<sup>a</sup>See Table 5 for facets.

<sup>b</sup>Numbering arbitrary, for identification only.

<sup>c</sup>Logical semantic analysis as follows:

Basis 1: an "e" in facet B must be preceded and followed by equivalent elements, both "o"; or "i" in facet A or "m" in facet C.

Basis 2: a "c" in facet D cannot be preceded by an "e" in facet B.

Basis 3: a "c" in facet D cannot be followed by a "p" in facet E.

Basis 4: a "p" in facet E cannot be preceded by a "b" in facet B.

<sup>d</sup>See Maierle (1969) for rationale.

APPENDIX B

INSTRUCTIONS AND EXPLANATIONS FOR THE

ABS-MR (ENGLISH)

INSTRUCTIONS AND EXPLANATIONS FOR THE

ABS-MR (ENGLISH)

There are no "correct" or "incorrect" answers except on the last three pages. We are primarily interested in knowing your own opinions (or your opinions about the beliefs of others). Do not worry; indicate what you believe to be the best answer. Do not discuss your answers since we are interested in knowing strictly your personal opinions.

Please answer all the questions. Perhaps you will find that none of the answers listed in the questionnaire represents exactly what you think or feel; sometimes the question will not apply to you. In these cases, choose the answer which most closely approximates your opinion or the actual situation. If you wish, you may write a commentary or criticism at the side of the question; but answer it nevertheless. Do not indicate more than one answer for each question. A question with more than one answer will not be counted.

Remember that you need only encircle the number of the selected answer. It is not necessary to encircle the entire statement.

You may use pencil or pen.

Thank you

FOR BUSINESSMEN:

Please indicate the city where you are presently living and your area of specialization at the top of the first page.

FOR FAMILY MEMBERS:

Please indicate the city where you are presently living and your specific relationship to your retarded child, e.g., father, mother, uncle, sister, grandmother, etc. at the top of the first page.

EXPLANATION OF THE SURVEY ON EDUCATION AND  
MENTAL RETARDATION

The purpose of this study is to investigate attitudes toward education in general and towards the mentally retarded among several sub-groups of the Colombian population. This study is part of a broad cross-cultural research project directed by Dr. John E. Jordan of the Michigan State University, College of Education, in which samples from Argentina, Belgium, Colombia, Denmark, United States, France, Netherlands, England, Mexico, Peru, Poland, and Yugoslavia are included. Dr. Luis H. Perez, Chairman of the Department of Psychology at the Universidad del Valle, is cooperating on the Colombian study. This country has been chosen because it provides a very different population in language, culture, and social patterns from that of Europe, Asia, and the United States where similar studies are being carried out or have already been completed.

The questionnaire contains five parts: (1) Attitude Behavior Scale; (2) Personal Questionnaire; (3) Handicapped Persons Questionnaire; (4) Life Situations; and (5) Questions on the Mentally Retarded.

The research is based on a new facet theory developed by Dr. Louis Guttman of the Israel Institute of Applied Social Research, by means of which the attitudes of one cultural group is measured and compared with those of others. The Colombian sample is expected to include 1,000 subjects: 400 primary and secondary school teachers; 200 businessmen; 200 parents of the mentally retarded; and 200 professionals who work with the mentally retarded.

The results of this study are expected to provide at least six benefits:

1. To help develop a special education program.
2. To assess community support toward special education programs.
3. To indicate the attitudes, understanding, and state of satisfaction among teachers in regard to the mentally retarded.
4. To provide correlational information in Colombia; that is, how do attitudes toward education and the mentally retarded differ among persons with different occupations, levels of education, and from different regions of the country in addition to other demographic factors, values, and past experiences.
5. To provide cross-cultural comparisons. It is said, "Education is one of the roads to national development." If this is so, one can measure the level of educational involvement of various countries and the correlation with indices of economic development and progress.
6. To develop a cross-cultural attitudinal measurement and to validate the theories on which this study is based.



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THE RESULTS OF THIS STUDY ARE EXPECTED TO PROVIDE A MINIMUM OF THESE BENEFITS:

1. To obtain a description of the different attitudes of parents towards their retarded children and correlate them with their experiences and personal values and demographic factors.
2. To assess the support of various groups within the community (teachers, professionals who work with the mentally retarded, businessmen) towards educational and rehabilitative programs.
3. To indicate the attitudes and knowledgeability of teachers towards the mentally retarded and their satisfaction in working with them.
4. To obtain information on the attitudes of various groups to draw upon for future undertakings; that is, direct programs to maintain favorable attitudes, change unfavorable attitudes, or simply to evaluate the general attitude of the community.
5. To carry out parallel studies among different cultures or countries.
6. To standardize a system of measurement in order to evaluate cross-cultural attitudes and to validate the theories which have served as a basis for this study.

EXPLANATION OF THE SURVEY ON EDUCATION AND  
MENTAL RETARDATION

It is estimated that 85 per cent of the mentally retarded can benefit from special education and training. Instead of being a burden, they can begin to participate in the life of the community. Nevertheless, public support is needed for the success of a good program.

The purpose of this study is to investigate attitudes toward the mentally retarded (and toward education in general) within the community. This study is part of a broad cross-cultural research project directed by Dr. John E. Jordan of the Michigan State University College of Education. The Department of Psychology of the University of Valle is cooperating in the Colombian study.

THE RESULTS OF THIS STUDY ARE EXPECTED TO PROVIDE A MINIMUM OF THESE BENEFITS:

1. To assess the support of various groups in the community towards educational and rehabilitative programs.
2. To obtain a description of the different attitudes of parents towards their retarded children.
3. To help develop a special education program.
4. To obtain information on different attitudes toward education and the mentally retarded according to educational, professional, and regional levels.
5. To carry out parallel studies among different cultures or countries.
6. To validate the theories which have served as a basis for this study.

APPENDIX C

ATTITUDE-BEHAVIOR SCALE:

ABS-MR (ENGLISH)

## ATTITUDE BEHAVIOR SCALE--MR

DIRECTIONS

This booklet contains statements of how people feel about certain things. In this section you are asked to indicate for each of these statements how most other people believe that mentally retarded people compare to people who are not retarded. Here is a sample statement.

Sample 1.

## 1. Chance of being blue-eyed

- ① less chance
2. about the same
3. more chance

If other people believe that mentally retarded people have less chance than most people to have blue eyes, you should circle the number 1 as shown above.

If other people believe the mentally retarded have more chance to have blue eyes, you should circle the number 3 as shown below.

## 1. Chance of being blue-eyed

1. less chance
2. about the same
- ③ more chance

After each statement there will also be a question asking you to state how certain or sure you were of your answer. Suppose you answered the sample question about "blue eyes" by marking about the same.

Next you should then indicate how sure you were of this answer. If you felt sure of this answer, you should circle the number 3 as shown below in Sample 2.

Sample 2.

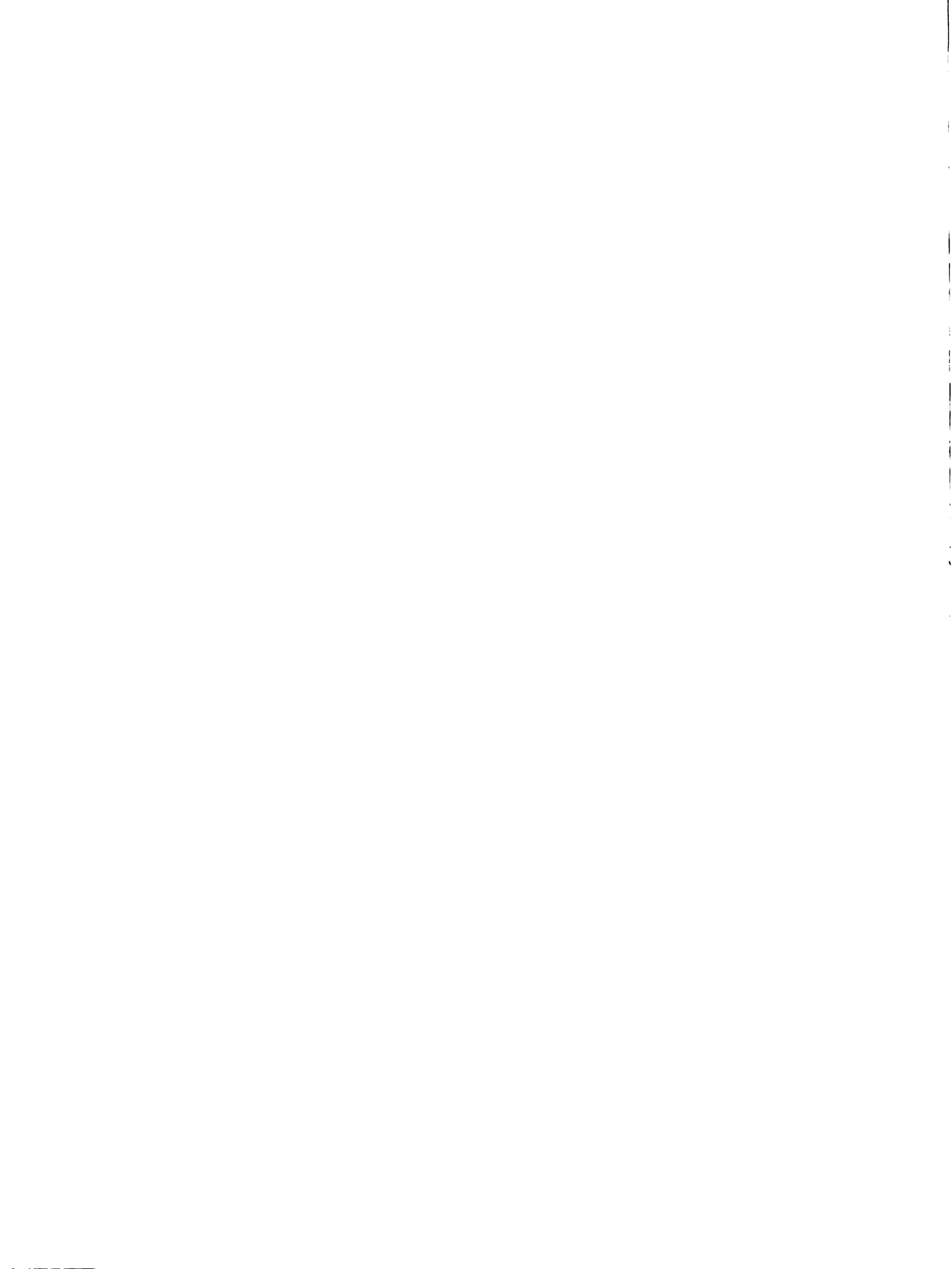
## 1. Chance of being blue-eyed

1. less chance
- ② about the same
3. more chance

## 2. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

by: John E. Jordan College of Education Michigan State University
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ABS-I-MRDirections: Section I

In the statements that follow you are to circle the number that indicates how other people compare mentally retarded persons to those who are not mentally retarded, and then to state how sure you felt about your answer. Usually people are sure of their answers to some questions, and not sure of their answers to other questions. It is important to answer all questions, even though you may have to guess at the answers to some of them.

Other people generally believe the following things about the mentally retarded as compared to those who are not retarded:

- |  |                       |                                      |
|--|-----------------------|--------------------------------------|
| 1. Energy and vitality                 | $\longleftrightarrow$ | 2. How sure are you of this answer?  |
| 1. less energetic                      |                       | 1. not sure                          |
| 2. about the same                      |                       | 2. fairly sure                       |
| 3. more energetic                      |                       | 3. sure                              |
| 3. Ability to do school work           |                       | 4. How sure are you of this answer?  |
| 1. less ability                        |                       | 1. not sure                          |
| 2. about the same                      |                       | 2. fairly sure                       |
| 3. more ability                        |                       | 3. sure                              |
| 5. Memory                              |                       | 6. How sure are you of this answer?  |
| 1. not as good                         |                       | 1. not sure                          |
| 2. same                                |                       | 2. fairly sure                       |
| 3. better                              |                       | 3. sure                              |
| 7. Interested in unusual sex practices |                       | 8. How sure are you of this answer?  |
| 1. more interested                     |                       | 1. not sure                          |
| 2. about the same                      |                       | 2. fairly sure                       |
| 3. less interested                     |                       | 3. sure                              |
| 9. Can maintain a good marriage        |                       | 10. How sure are you of this answer? |
| 1. less able                           |                       | 1. not sure                          |
| 2. about the same                      |                       | 2. fairly sure                       |
| 3. more able                           |                       | 3. sure                              |
| 11. Will have too many children        |                       | 12. How sure are you of this answer? |
| 1. more than most                      |                       | 1. not sure                          |
| 2. about the same                      |                       | 2. fairly sure                       |
| 3. less than most                      |                       | 3. sure                              |

ABS-I-MR

Other people generally believe the following things about the mentally retarded as compared to those who are not mentally retarded:

- |  |                                      |
|--|--------------------------------------|
| 13. Faithful to spouse   | 14. How sure are you of this answer? |
| 1. less faithful   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more faithful   | 3. sure                              |
| 15. Will take care of his children                             | 16. How sure are you of this answer? |
| 1. less than most  | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. better than most  | 3. sure                              |
| 17. Likely to obey the law                                     | 18. How sure are you of this answer? |
| 1. less likely   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more likely   | 3. sure                              |
| 19. Does steady and dependable work                            | 20. How sure are you of this answer? |
| 1. less likely   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more likely   | 3. sure                              |
| 21. Works hard   | 22. How sure are you of this answer? |
| 1. not as much   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more than most  | 3. sure                              |
| 23. Makes plans for the future                                 | 24. How sure are you of this answer? |
| 1. not as likely   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more likely   | 3. sure                              |
| 25. Prefers to have fun now rather than to work for the future | 26. How sure are you of this answer? |
| 1. more so than most people                                    | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. less so than most people                                    | 3. sure                              |

ABS-I-MR

Other people generally believe the following things about the mentally retarded as compared to those who are not retarded:

- |  |                                      |
|--|--------------------------------------|
| 27. Likely to be cruel to others                           | 28. How sure are you of this answer? |
| 1. more likely   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. less likely   | 3. sure                              |
| 29. Mentally retarded are sexually                         | 30. How sure are you of this answer? |
| 1. more loose than others                                  | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. less loose than others                                  | 3. sure                              |
| 31. Amount of initiative                                   | 32. How sure are you of this answer? |
| 1. less than others  | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more than others  | 3. sure                              |
| 33. Financial self-support                                 | 34. How sure are you of this answer? |
| 1. less able than others                                   | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. more able than others                                   | 3. sure                              |
| 35. Mentally retarded prefer                               | 36. How sure are you of this answer? |
| 1. to be by themselves                                     | 1. not sure                          |
| 2. to be only with normal people                           | 2. fairly sure                       |
| 3. to be with all people equally                           | 3. sure                              |
| 37. Compared to others, education of the mentally retarded | 38. How sure are you of this answer? |
| 1. is not very important                                   | 1. not sure                          |
| 2. is of uncertain importance                              | 2. fairly sure                       |
| 3. is an important social goal                             | 3. sure                              |
| 39. Strictness of rules for mentally retarded              | 40. How sure are you of this answer? |
| 1. must be more strict                                     | 1. not sure                          |
| 2. about the same  | 2. fairly sure                       |
| 3. need less strict rules                                  | 3. sure                              |



ABS-II-MRDirections: Section II

This section contains statements of ways in which other people sometimes act toward people. You are asked to indicate for each of these statements what other people generally believe about interacting with the mentally retarded in such ways. You should then indicate how sure you feel about your answer.

Other people generally believe that mentally retarded persons ought:

- |  |                                      |
|--|--------------------------------------|
| 41. To play on the school playground with other children who are not mentally retarded | 42. How sure are you of this answer? |
| 1. usually not approved  | 1. not sure                          |
| 2. undecided   | 2. fairly sure                       |
| 3. usually approved  | 3. sure                              |
| 43. To visit in the homes of other children who are not mentally retarded              | 44. How sure are you of this answer? |
| 1. usually not approved  | 1. not sure                          |
| 2. usually undecided   | 2. fairly sure                       |
| 3. usually approved  | 3. sure                              |
| 45. To go on camping trips with other children who are not mentally retarded           | 46. How sure are you of this answer? |
| 1. usually not approved  | 1. not sure                          |
| 2. undecided   | 2. fairly sure                       |
| 3. usually approved  | 3. sure                              |
| 47. To be provided with simple tasks since they can learn very little                  | 48. How sure are you of this answer? |
| 1. usually believed  | 1. not sure                          |
| 2. undecided   | 2. fairly sure                       |
| 3. not usually believed  | 3. sure                              |
| 49. To stay overnight at the homes of children who are not mentally retarded           | 50. How sure are you of this answer? |
| 1. usually not approved  | 1. not sure                          |
| 2. undecided   | 2. fairly sure                       |
| 3. usually approved  | 3. sure                              |

ABS-II-MR

Other people generally believe that mentally retarded persons ought:

- |  |  |
|--|--|
| 51. To go to parties with other children who are not mentally retarded                                       | 52. How sure are you of this answer?     |
| 1. usually not approved<br>2. undecided<br>3. usually approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 53. To be hired for a job <u>only</u> if there are no qualified non-mentally retarded people seeking the job | 54. How sure are you of this answer?     |
| 1. usually approved<br>2. undecided<br>3. usually not approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 55. To live in the same neighborhood with people who are not mentally retarded                               | 56. How sure are you of this answer?     |
| 1. usually not approved<br>2. undecided<br>3. usually approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 57. To date a person who is not mentally retarded  | 58. How sure are you of this answer?     |
| 1. usually not approved<br>2. undecided<br>3. usually approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 59. To go to the movies with someone who is not mentally retarded  | 60. How sure are you of this answer?     |
| 1. usually not approved<br>2. undecided<br>3. usually approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 61. To marry a person who is not mentally retarded   | 62. How sure are you of this answer?     |
| 1. usually not approved<br>2. undecided<br>3. usually approved   | 1. not sure<br>2. fairly sure<br>3. sure |
| 63. To be sterilized (males)   | 64. How sure are you of this answer?     |
| 1. usually approved<br>2. undecided<br>3. usually not approved   | 1. not sure<br>2. fairly sure<br>3. sure |

ABS-II-MR

Other people generally believe that mentally retarded persons ought:

- |   |                                      |
|---|--------------------------------------|
| 65. To be sterilized (females)                                | 66. How sure are you of this answer? |
| 1. usually approved   | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually not approved                                       | 3. sure                              |
| 67. To be desirable as friends                                | 68. How sure are you of this answer? |
| 1. not usually approved                                       | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually approved   | 3. sure                              |
| 69. To be regarded as having sex appeal                       | 70. How sure are you of this answer? |
| 1. not usually so   | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually so   | 3. sure                              |
| 71. To be regarded as dangerous                               | 72. How sure are you of this answer? |
| 1. usually so regarded  | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. not usually regarded so                                    | 3. sure                              |
| 73. To run machines that drill holes in objects               | 74. How sure are you of this answer? |
| 1. usually not approved                                       | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually approved   | 3. sure                              |
| 75. To be trusted with money for personal expenses            | 76. How sure are you of this answer? |
| 1. not usually so   | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually so   | 3. sure                              |
| 77. To work at jobs he can do even if he has almost no speech | 78. How sure are you of this answer? |
| 1. not usually so   | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. usually so   | 3. sure                              |
| 79. To be forced to totally provide for themselves            | 80. How sure are you of this answer? |
| 1. usual  | 1. not sure                          |
| 2. not sure   | 2. fairly sure                       |
| 3. not usual  | 3. sure                              |

ABS-III-MRDirections: Section III

This section contains statements of the "right" or "moral" way of acting toward people. You are asked to indicate whether you yourself agree or disagree with each statement according to how you personally believe you ought to behave toward mentally retarded persons. You should then indicate how sure you feel about your answer.

In respect to people who are mentally retarded, do you believe that it is usually right or usually wrong:

- |   |   |
|---|---|
| <p>81. To take a mentally retarded child on a camping trips with normal children</p> <p>1. usually wrong<br/>2. undecided<br/>3. usually right</p>                                | <p>82. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>83. To permit a mentally retarded child to go to the movies with children who are not mentally retarded</p> <p>1. usually wrong<br/>2. undecided<br/>3. usually right</p>      | <p>84. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>85. To allow a mentally retarded child to visit overnight with a child who is not mentally retarded</p> <p>1. usually wrong<br/>2. undecided<br/>3. usually right</p>          | <p>86. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>87. To take a mentally retarded child to a party with children who are not mentally retarded</p> <p>1. usually wrong<br/>2. undecided<br/>3. usually right</p>                 | <p>88. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>89. For the government to pay <u>part</u> of the cost of elementary education for mentally retarded children</p> <p>1. usually wrong<br/>2. undecided<br/>3. usually right</p> | <p>90. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |

ABS-III-MR

In respect to people who are mentally retarded, do you believe that it is usually right or usually wrong:

- |  |  |
|--|--|
| 91. For the government to pay the <u>full</u> cost of elementary education for mentally retarded children    | 92. How sure are you of this answer?     |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |
| 93. For the government to pay the <u>full</u> cost of a high school education for mentally retarded children | 94. How sure are you of this answer?     |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |
| 95. For the government to pay <u>part</u> of the medical costs related to the disability                     | 96. How sure are you of this answer?     |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |
| 97. For the government to pay <u>all</u> of the medical costs related to the disability                      | 98. How sure are you of this answer?     |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |
| 99. To be given money for food and clothing by the government  | 100. How sure are you of this answer?    |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |
| 101. To mix freely with people who are not mentally retarded at parties                                      | 102. How sure are you of this answer?    |
| 1. usually wrong<br>2. undecided<br>3. usually right   | 1. not sure<br>2. fairly sure<br>3. sure |

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ABS-III-MR

In respect to people who are mentally retarded, do you believe that it is usually right or usually wrong:

103. To go on dates with someone who is not mentally retarded

1. usually wrong
2. undecided
3. usually right

105. To go to the movies with someone who is not mentally retarded

1. usually wrong
2. undecided
3. usually right

107. To marry someone who is not mentally retarded

1. usually wrong
2. undecided
3. usually right

109. To be a soldier in the army

1. usually wrong
2. undecided
3. usually right

111. To provide special laws for their protection

1. usually wrong
2. undecided
3. usually right

113. To provide special help to get around the city

1. usually wrong
2. not sure
3. usually right

115. To sterilize the mentally retarded

1. usually right
2. not sure
3. usually wrong

104. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

106. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

108. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

110. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

112. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

114. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

116. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

ABS-III-MR

In respect to people who are mentally retarded, do you believe that it is usually right or usually wrong:

117. To put all mentally retarded in separate classes, away from normal children

1. usually right
2. not sure
3. usually wrong

118. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

119. To reserve certain jobs for the mentally retarded

1. usually wrong
2. not sure
3. usually right

120. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

ABS-IV-MRDirections: Section IV

This section contains statements of ways in which people sometimes act toward other people. You are asked to indicate for each of these statements whether you personally would act toward mentally retarded people according to the statement. You should then indicate how sure you feel about this answer.

In respect to a mentally retarded person, would you:

- |  |                                       |
|--|---------------------------------------|
| 121. Share a seat on a train for a long trip       | 122. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |
| 123. Have such a person as a fellow worker         | 124. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |
| 125. Have such a person working for you            | 126. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |
| 127. Live in the next-door house or apartment      | 128. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |
| 129. Extend an invitation to a party at your house | 130. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |
| 131. Accept a dinner invitation at his house       | 132. How sure are you of this answer? |
| 1. no  | 1. not sure                           |
| 2. don't know                                      | 2. fairly sure                        |
| 3. yes   | 3. sure                               |



ABS-IV-MR

In respect to a mentally retarded person, would you:

133. Go to the movies together

- 1. no
- 2. don't know
- 3. yes

134. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

135 Go together on a date

- 1. no
- 2. don't know
- 3. yes

136. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

137. Permit a son or daughter to date this person

- 1. no
- 2. don't know
- 3. yes

138. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

139. Permit a son or daughter to marry this person

- 1. no
- 2. don't know
- 3. yes

140. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

141. Feel sexually comfortable together

- 1. no
- 2. don't know
- 3. yes

142. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

143. Enjoy working with the mentally retarded

- 1. no
- 2. don't know
- 3. yes

144. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

145. Enjoy working with the mentally retarded as much as other handicapped

- 1. no
- 2. don't know
- 3. yes

146. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

147. Enjoy working with mentally retarded who also have emotional problems

- 1. no
- 2. don't know
- 3. yes

148. How sure are you of this answer?

- 1. not sure
- 2. fairly sure
- 3. sure

ABS-IV-MR

In respect to a mentally retarded person, would you:

149. Hire the mentally retarded if you were an employer

1. no
2. don't know
3. yes

151. Want the mentally retarded in your class if you were a teacher

1. no
2. don't know
3. yes

153. Require the mentally retarded to be sterilized if you were in control

1. yes
2. don't know
3. no

155. Separate the mentally retarded from the rest of society if you were in control

1. yes
2. don't know
3. no

157. Believe that the care of the mentally retarded is an evidence of national social development

1. no
2. don't know
3. yes

159. Provide, if you could, special classes for the mentally retarded in regular school

1. no
2. don't know
3. yes

150. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

152. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

154. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

156. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

158. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

160. How sure are you of this answer?

1. not sure
2. fairly sure
3. sure

ABS-V-MRDirections: Section V

This section contains statements of actual feelings that people may hold toward the mentally retarded. You are asked to indicate how you feel toward people who are mentally retarded compared to people who are not mentally retarded. You should then indicate how sure you feel of your answer.

How do you actually feel toward persons who are mentally retarded compared to others who are not mentally retarded:

- |                   |                                      |
|-------------------|--------------------------------------|
| 1. Disliking      | 2. How sure are you of this answer?  |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 3. Fearful        | 4. How sure are you of this answer?  |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 5. Horrified      | 6. How sure are you of this answer?  |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 7. Loathing       | 8. How sure are you of this answer?  |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 9. Dismay         | 10. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 11. Hating        | 12. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 13. Revulsion     | 14. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |

ABS-V-MR

How do you actually feel toward persons who are mentally retarded compared to others who are not mentally retarded:

- |                   |                                      |
|-------------------|--------------------------------------|
| 15. Contemptful   | 16. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 17. Distaste      | 18. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 19. Sickened      | 20. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 21. Confused      | 22. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 23. Negative      | 24. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 25. At ease       | 26. How sure are you of this answer? |
| 1. less           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. more           | 3. sure                              |
| 27. Restless      | 28. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |
| 29. Uncomfortable | 30. How sure are you of this answer? |
| 1. more           | 1. not sure                          |
| 2. about the same | 2. fairly sure                       |
| 3. less           | 3. sure                              |

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ABS-V-MR

How do you actually feel toward persons who are mentally retarded compared to others who are not mentally retarded:

- |   |   |
|---|---|
| <p>31. Relaxed</p> <p>1. less<br/>2. about the same<br/>3. more</p> | <p>32. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>33. Tense</p> <p>1. more<br/>2. about the same<br/>3. less</p>   | <p>34. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>35. Bad</p> <p>1. more<br/>2. about the same<br/>3. less</p>     | <p>36. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>37. Calm</p> <p>1. less<br/>2. about the same<br/>3. more</p>    | <p>38. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |
| <p>39. Happy</p> <p>1. less<br/>2. about the same<br/>3. more</p>   | <p>40. How sure are you of this answer?</p> <p>1. not sure<br/>2. fairly sure<br/>3. sure</p> |

ABS-VI-MR

Directions: Section VI

This section contains statements of different kinds of actual experiences you have had with mentally retarded persons. If the statement applies to you, circle yes. If not, you should circle no.

Experiences or contacts with the mentally retarded:

- |   |   |
|---|---|
| 41. Shared a seat on a bus, train, or plane<br>1. no<br>2. uncertain<br>3. yes              | 42. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 43. Eaten at the same table together in a restaurant<br>1. no<br>2. uncertain<br>3. yes     | 44. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 45. Lived in the same neighborhood<br>1. no<br>2. uncertain<br>3. yes                       | 46. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 47. Worked in the same place<br>1. no<br>2. uncertain<br>3. yes                             | 48. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 49. Had such a person as my boss or employer<br>1. no<br>2. uncertain<br>3. yes             | 50. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 51. Worked to help such people without being paid for it<br>1. no<br>2. uncertain<br>3. yes | 52. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |
| 53. Have acquaintance like this<br>1. no<br>2. uncertain<br>3. yes                          | 54. Has this experience been mostly pleasant or unpleasant?<br>1. no such experience<br>2. unpleasant<br>3. in between<br>4. pleasant |

ABS-VI-MRExperiences or contacts with the mentally retarded:

- |  |   |
|--|---|
| <p>55. Have good friends like this</p> <p>1. no<br/>2. uncertain<br/>3. yes</p>                        | <p>56. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>57. Donated money, clothes, etc., for people like this</p> <p>1. no<br/>2. uncertain<br/>3. yes</p> | <p>58. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>59. Have a husband(or wife) like this</p> <p>1. no<br/>2. uncertain<br/>3. yes</p>                  | <p>60. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>61. I am like this, myself</p> <p>1. no<br/>2. uncertain<br/>3. yes</p>                             | <p>62. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>63. My best friend is like this</p> <p>1. no<br/>2. uncertain<br/>3. yes</p>                        | <p>64. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>65. Received pay for working with people like this</p> <p>1. yes<br/>2. no</p>                      | <p>66. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |
| <p>67. My children have played with children like this</p> <p>1. no<br/>2. uncertain<br/>3. yes</p>    | <p>68. Has this experience been mostly pleasant or unpleasant?</p> <p>1. no such experience<br/>2. unpleasant<br/>3. in between<br/>4. pleasant</p> |

ABS-VI-MR

Experiences or contacts with the mentally retarded:

- |   |  |
|---|--|
| <p>69. My children have attended school with children like this</p> <ol style="list-style-type: none"><li>1. no</li><li>2. uncertain</li><li>3. yes</li></ol> | <p>70. Has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |
| <p>71. Voted for extra taxes for their education</p> <ol style="list-style-type: none"><li>1. no</li><li>2. not certain</li><li>3. yes</li></ol>              | <p>72. Has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |
| <p>73. Worked to get jobs for them</p> <ol style="list-style-type: none"><li>1. no</li><li>2. not certain</li><li>3. yes</li></ol>                            | <p>74. Has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |
| <p>75. Have you sexually enjoyed such people</p> <ol style="list-style-type: none"><li>1. no</li><li>2. no answer</li><li>3. yes</li></ol>                    | <p>76. Has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |
| <p>77. Studied about such people</p> <ol style="list-style-type: none"><li>1. no</li><li>2. yes</li></ol>   | <p>78. Has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |
| <p>79. Have worked as a teacher with such people</p> <ol style="list-style-type: none"><li>1. no</li><li>2. yes</li></ol>                                     | <p>80. has this experience been mostly pleasant or unpleasant?</p> <ol style="list-style-type: none"><li>1. no such experience</li><li>2. unpleasant</li><li>3. in between</li><li>4. pleasant</li></ol> |



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This part of the booklet deals with many things. For the purpose of this study, the answers of all persons are important.

Part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous or confidential, 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.

Please read each question carefully and do not omit any questions. Please answer by circling the answer you choose.

81. Please indicate your sex.

1. Female
2. Male

82. Please indicate your age as follows:

1. Under 20 years of age
2. 21-30
3. 31-40
4. 41-50
5. 50 - over

83. 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.

1. I have had no such experience
2. Elementary school (Grade school)
3. Secondary school (High school)
4. College or University
5. Other types

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84. What is your marital status?

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

85. What is your religion?

1. I prefer not to answer
2. Catholic
3. Protestant
4. Jewish
5. Other or none

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

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

87. About how much education do you have?

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

88. Some people are more set in their ways than others. How would you rate yourself?

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

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89. 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."

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

90. 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 that are doing wrong, or that they are doing right?

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

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

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

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

92. 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."

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

93. Some people believe that more local 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?
1. Strongly disagree
  2. Slightly disagree
  3. Slightly agree
  4. Strongly agree
94. 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?
1. Strongly disagree
  2. Slightly disagree
  3. Slightly agree
  4. Strongly agree
95. People have different ideas about planning for education in their nation. Which one of the following do you believe is the best way?
1. Educational planning should be primarily directed by the church
  2. Planning for education should be left entirely to the parents
  3. Educational planning should be primarily directed by the individual city or other local governmental unit
  4. Educational planning should be primarily directed by the national government
96. In respect to your religion, about to what extent do you observe the rules and regulations of your religion?
1. I prefer not to answer
  2. I have no religion
  3. Sometimes
  4. Usually
  5. Almost always

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

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

QUESTIONNAIRE: HP

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

98. Some handicapped conditions are listed below. In respect to these various handicaps, with which one have you had the most actual experience?

1. blind and partially blind
2. deaf, partially deaf, or speech impaired
3. crippled or spastic
4. mental retardation
5. social or emotional disorders
6. *not experienced*

In the following questions, 99 through 103 you are to refer to the category of the handicapped persons you have just indicated.

99. The following questions have to do with the kinds of experiences you have had with the category of handicapped person you indicated in the previous question. If more than one category of experience applies, please choose the answer with the highest number.

1. I have read or studied about handicapped persons through reading, movies, lectures, or observations
2. A friend or relative is handicapped
3. I have personally work with handicapped persons as a teacher, counselor, volunteer, child care, etc.
4. I, myself, have a fairly serious handicap

100. Considering all of the times you have talked, worked, or in some other way had personal contact with the category of handicapped persons indicated in question 98, about how many times has it been altogether?
1. Less than 10 occasions
  2. Between 10 and 50 occasions
  3. Between 50 and 100 occasions
  4. Between 100 and 500 occasions
  5. More than 500 occasions
101. When you have been in contact with this category of handicapped people how easy for you, in general, would it have been to have avoided being with these handicapped persons?
1. I could not avoid the contact
  2. I could generally have avoided these personal contacts only at great cost of difficulty
  3. I could generally have avoided these personal contacts only with considerable difficulty
  4. I could generally have avoided these personal contacts but with some inconvenience
  5. I could generally have avoided these personal contacts without any difficulty or inconvenience
102. During your contact with this category of handicapped persons, did you gain materially in any way through these contacts, such as being paid, or gaining academic credit, or some such gain?
1. No, I have never received money, credit, or any other material gain
  2. Yes, I have been paid for working with handicapped persons
  3. Yes, I have received academic credit or other material gain
  4. Yes, I have both been paid and received academic credit
103. If you have been paid for working with handicapped persons, about what percent of your income was derived from contact with handicapped persons during the actual period when working with them?
1. No work experience
  2. Less than 25%
  3. Between 26 and 50%
  4. Between 51 and 75%
  5. More than 76%

104. If you have ever worked with any category of handicapped persons 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?
1. No such experience
  2. No other job was available
  3. Other jobs available were not at all acceptable to me
  4. Other jobs available were not quite acceptable to me
  5. Other jobs available were fully acceptable to me
105. Have you had any 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?
1. Less than 10 occasions
  2. Between 10 and 50 occasions
  3. Between 50 and 100 occasions
  4. Between 100 and 500 occasions
  5. More than 500 occasions
106. How have you generally felt about your experiences with mentally retarded persons?
1. No experience
  2. I definitely disliked it
  3. I did not like it very much
  4. I liked it somewhat
  5. I definitely enjoyed it

## LIFE SITUATIONS

This section of the booklet deals with how people feel about several aspects of life or life situations. Please indicate how you feel about each situation by circling the answer you choose.

- |   |  |
|---|--|
| <p>107. It should be possible to eliminate war once and for all</p> <p>1. strongly disagree<br/>2. disagree<br/>3. agree<br/>4. strongly agree</p>  | <p>108. How sure do you feel about your answer?</p> <p>1. not sure at all<br/>2. not very sure<br/>3. fairly sure<br/>4. very sure</p> |
| <p>109. Success depends to a large part on luck and fate.</p> <p>1. strongly agree<br/>2. agree<br/>3. disagree<br/>4. strongly disagree</p>  | <p>110. How sure do you feel about your answer?</p> <p>1. not sure at all<br/>2. not very sure<br/>3. fairly sure<br/>4. very sure</p> |
| <p>111. Some day most of the mysteries of the world will be revealed by science.</p> <p>1. strongly disagree<br/>2. disagree<br/>3. agree<br/>4. strongly agree</p>                                       | <p>112. How sure do you feel about your answer?</p> <p>1. not sure at all<br/>2. not very sure<br/>3. fairly sure<br/>4. very sure</p> |
| <p>113. By improving industrial and agricultural methods, poverty can be eliminated in the world.</p> <p>1. strongly disagree<br/>2. disagree<br/>3. agree<br/>4. strongly agree</p>                      | <p>114. How sure do you feel about your answer?</p> <p>1. not sure at all<br/>2. not very sure<br/>3. fairly sure<br/>4. very sure</p> |
| <p>115. With increased medical knowledge it should be possible to lengthen the average life span to 100 years or more.</p> <p>1. strongly disagree<br/>2. disagree<br/>3. agree<br/>4. strongly agree</p> | <p>116. How sure do you feel about your answer?</p> <p>1. not sure at all<br/>2. not very sure<br/>3. fairly sure<br/>4. very sure</p> |



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117. Someday the deserts will be converted into good farming land by the application of engineering and science.
1. strongly disagree
  2. disagree
  3. agree
  4. strongly agree
118. How sure do you feel about your answer?
1. not sure at all
  2. not very sure
  3. fairly sure
  4. very sure
119. Education can only help people develop their natural abilities; it cannot change people in any fundamental way.
1. strongly agree
  2. agree
  3. disagree
  4. strongly disagree
120. How sure do you feel about your answer?
1. not sure at all
  2. not very sure
  3. fairly sure
  4. very sure
121. With hard work anyone can succeed.
1. strongly disagree
  2. disagree
  3. agree
  4. strongly agree
122. How sure do you feel about your answer?
1. not sure at all
  2. not very sure
  3. fairly sure
  4. very sure
123. Almost every present human problem will be solved in the future.
1. strongly disagree
  2. disagree
  3. agree
  4. strongly agree
124. How sure do you feel about your answer?
1. not sure at all
  2. not very sure
  3. fairly sure
  4. very sure

MENTAL RETARDATION

This section of the questionnaire deals with information about mental retardation. Please circle your answer.

125. Which of the following is a preferred method of educating mentally handicapped children:
1. to give the child work he can do with his hands (handicraft, weaving).
  2. to place the child in a vocational training school
  3. to make the program practical and less academic
  4. to present the same material presented to the average child but allowing more time for practice.
126. In educating the mentally handicapped (IQ 50-75) child, occupational training should begin::
1. upon entering high school
  2. the second year of high school
  3. the last year of high school
  4. when the child enters school
127. The major goal of training the mentally handicapped is:
1. social adequacy
  2. academic proficiency
  3. occupational adequacy
  4. occupational adjustment
128. Normal children reject mentally handicapped children because:
1. of their poor learning ability
  2. of unacceptable behavior
  3. they are usually dirty and poor
  4. they do not "catch on"
129. The emotional needs of mentally handicapped are:
1. stronger than normal children
  2. the same as normal children
  3. not as strong as normal children
  4. nothing to be particularly concerned with
130. The proper placement for the slow learner (IQ 75-90) is in:
1. the regular classroom
  2. special class
  3. vocational arts
  4. regular class until age of 16 and then dropped out of school

131. In school, the slow learner ususally:
1. is given a lot of successful experiences
  2. meets with a great many failures
  3. is a leader
  4. is aggressive
132. In grading the slow learner, the teacher should:
1. be realistic, if the child is a failure, fail him
  2. grade him according to his achievement with relation to his ability
  3. not be particularly concerned with a grade
  4. grade him according to his IQ
133. The studies with regard to changing intelligence of pre-school children indicate that:
1. intellectual change may be accomplished
  2. no change can be demonstrated
  3. change may take place more readily with older children
  4. the IQ can be increased at least 20 points if accelerated training begins early enough
134. The development and organization of a comprehensive educational program for the mentally handicapped is dependent upon:
1. adequate diagnoses
  2. proper training facilities
  3. a psychiatrist
  4. parent-teacher organizations
135. The mentally handicapped are physically:
1. markedly taller
  2. markedly shorter
  3. heavier
  4. about the same as the average child of the same age
136. The mentally handicapped child:
1. looks quite different from other children
  2. is in need of an educational program especially designed for his needs and characteristics
  3. can never be self-supporting
  4. cannot benefit from any educational program
137. The mentally handicapped individual usually becomes:
1. a skilled craftsman
  2. a professional person
  3. a semi-skilled laborer
  4. unemployable

138. The educationally handicapped have:

1. at least average intelligence
2. superior intelligence only
3. always have retarded intelligence
4. may have somewhat retarded, average, or superior intelligence.

139. The mentally handicapped have:

1. markedly inferior motor development
2. superior motor development
3. superior physical development
4. about average motor development

140. The reaction of the public toward the retarded child seems to be:

1. rejecting
2. somewhat understanding but not completely accepting
3. accepting
4. express feelings of acceptance but really feel rejecting

APPENDIX D

INSTRUCTIONS AND EXPLANATIONS FOR THE

ABS-MR (SPANISH)

### INSTRUCCIONES

No hay respuestas "correctas" o "incorrectas" excepto en las 3 últimas páginas. Ante todo, nos interesa conocer sus propias opiniones (o sus opiniones sobre las de los demás). Así que no se preocupe; indique la que usted crea ser la mejor respuesta. No comente sus respuestas pues nos interesa conocer sus opiniones estrictamente personales.

Por favor, responda todas las preguntas. Tal vez encuentre que ninguna respuesta de las dadas en el cuestionario representa exactamente lo que usted piensa o siente; algunas veces la pregunta no tiene relación con usted. En estos casos, escoja la respuesta que más se acerque a su opinión o a la situación actual. Si usted quiere, escriba un comentario o crítica al lado de la pregunta; sin embargo, contéstela. No indique más de una respuesta por cada pregunta. Una pregunta con más de una respuesta no se tendrá en cuenta.

Recuerde que sólo necesita encerrar en un círculo el número de la respuesta escogida. No hay necesidad de encerrar toda la frase.

Puede usar lápiz o tinta.

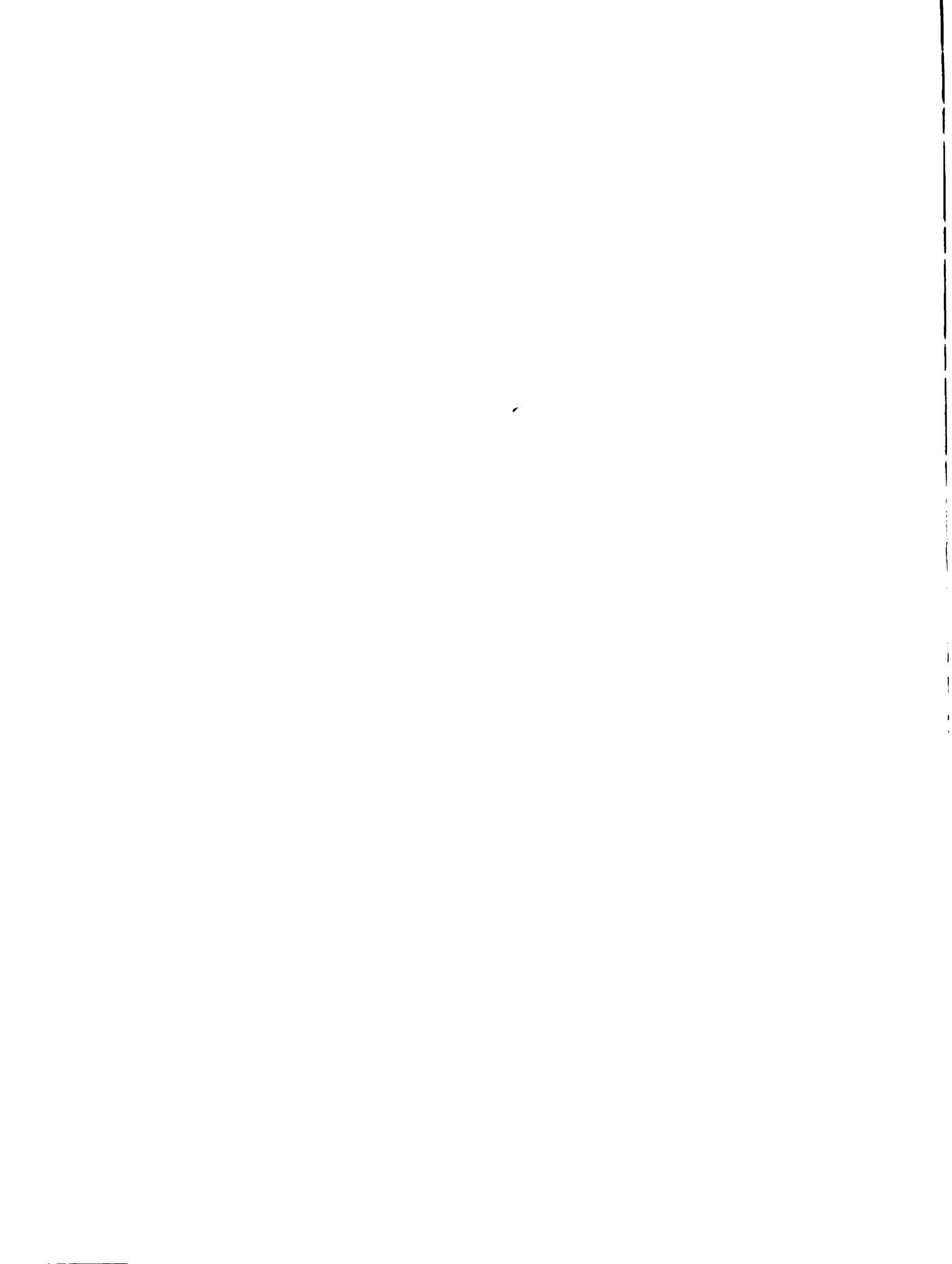
Gracias

#### PARA LOS NEGOCIANTES:

Por favor, indique al principio de la primera página su ciudad de residencia actual y su campo específico de trabajo.

#### PARA LOS FAMILIARES:

Por favor, indique al principio de la primera página su ciudad de residencia actual y su relación específica con su niño subdotado, vgr. padre, madre, tío, hermana, abuela etc.



## EXPLICACION DE LA ENCUESTA SOBRE EDUCACION Y RETARDO MENTAL

El propósito de este estudio es el investigar las actitudes hacia la educación en general y hacia las personas retardadas mentales entre varios sub-grupos de la población colombiana. Este estudio forma parte de un extenso proyecto de investigación en varias culturas dirigido por el Dr. John E. Jordan de la Facultad de Educación de la Universidad del Estado de Michigan; en el se incluirán muestras de población de Argentina, Bélgica, Colombia, Dinamarca, Estados Unidos, Francia, Holanda, Inglaterra, México, Perú, Polonia y Yugoslavia. El Dr. Luis H. Pérez, Jefe del Departamento de Psicología de la Universidad del Valle, coopera en el estudio colombiano. Este país ha sido escogido porque presenta una población muy diferente en lenguaje, cultura y patrones sociales a los de Europa, Asia y Estados Unidos donde estudios similares están llevándose a cabo o ya han sido completados.

El cuestionario contiene 5 partes:

1) Escala de Actitudes y Comportamiento; 2) Cuestionario Personal; 3) Cuestionario sobre Personas Incapacitadas; 4) Situaciones de la Vida, y 5) Preguntas sobre el Retardo Mental.

La investigación se basa en la nueva teoría de facetas desarrolladas por el Dr. Louis Guttman del Instituto Israelí para la Investigación Social Aplicada, mediante la cual se miden y comparan las actitudes de un grupo cultural con las de otro. La muestra colombiana incluirá 1.000 sujetos: 400 maestros de escuela primaria y secundaria, 200 hombres de negocios, 200 padres de retardados mentales y 200 profesionales que trabajan con retardados mentales.

Se espera que los resultados de este estudio provean, al menos, estos 6 beneficios:

- 1.- Ayudar al desarrollo de un programa de educación especial
- 2.- Evaluar el apoyo de la comunidad hacia los programas de educación especial.
- 3.- Indicar el estado de satisfacción de los maestros, sus actitudes y conocimientos hacia el retardo mental.
- 4.- Proveer una información correlacional en Colombia. Es decir, cómo difieren las actitudes hacia la educación y hacia los retardados mentales entre las personas con diferentes ocupaciones, y niveles de educación, de diferentes regiones del país además de otros factores demográficos, valores y experiencias pasadas.
- 5.- Proveer comparaciones entre culturas. Se dice " La educación es una de las rutas que conduce al desarrollo nacional." Si esto es cierto, puede medirse el grado de compromiso de varios países hacia la educación y su correlación con los índices de desarrollo económico y progreso?
- 6.- Desarrollar una medición de las actitudes inter-culturales y validar las teorías que han servido de base a este estudio.



## EXPLICACION DE LA ENCUESTA SOBRE EDUCACION Y RETARDO MENTAL

El propósito de este estudio es el investigar las actitudes hacia la educación en general y hacia las personas retardadas mentales entre varios sub-grupos de la población colombiana. Este estudio forma parte de un extenso proyecto de investigación en varias culturas dirigido por el Dr. John E. Jordan de la Facultad de Educación de la Universidad del Estado de Michigan; en el se incluirán muestras de población de Argentina, Bélgica, Colombia, Dinamarca, Estados Unidos, Francia, Holanda, Inglaterra, México, Perú, Polonia y Yugoslavia. El Dr. Luis H. Pérez, Jefe del Departamento de Psicología de la Universidad del Valle, coopera en el estudio colombiano. La muestra colombiana incluirá 1.000 sujetos: 400 maestros de escuela primaria y secundaria, 200 padres de retardados mentales, 200 profesionales que trabajan con retardados mentales y 200 negociantes.

SE ESPERA QUE LOS RESULTADOS DE ESTE ESTUDIO PROVEAN, AL MENOS, ESTOS BENEFICIOS

1. Conseguir una descripción de las actitudes diferentes de los padres hacia sus hijos subdotados y correlacionarlas con experiencias y valores personales y factores demográficos.
2. Evaluar el apoyo de varios grupos dentro de la comunidad (maestros, profesionales que trabajan con los retardados mentales, negociantes) a programas de educación y rehabilitación.
3. Indicar las actitudes y conocimientos de los maestros hacia los retardados mentales y su agrado en el trabajo con estos.
4. Conseguir información sobre las actitudes de varios grupos con el fin de aprovecharlas como base de acción futura; es decir, dirigir programas para conservar actitudes favorables, cambiar actitudes desfavorables, o simplemente diagnosticar el ambiente de la comunidad.
5. Hacer un estudio paralelo entre diferentes culturas o países.
6. Estandarizar un sistema de medidas para evaluar actitudes inter-culturales y validar las teorías que han servido de base a este estudio.

## EXPLICACION DE LA ENCUESTA SOBRE EDUCACION Y RETARDO MENTAL

Se estima que 85 % de los retardados mentales pueden beneficiarse por entrenamiento y educación especial. En vez de ser una carga pueden llegar a participar en la vida de la comunidad. Sin embargo, es necesario el apoyo de la ciudadanía para el éxito de un buen programa.

El propósito de este estudio es investigar las actitudes hacia los retardados mentales (y hacia la educación en general) dentro de la comunidad. Este estudio forma parte de un extenso proyecto de investigación en varias culturas dirigido por el Dr. John E. Jordan de la Facultad de Educación de la Universidad del Estado de Michigan. El Departamento de Psicología de la Universidad del Valle coopera en el estudio colombiano.

SE ESPERA QUE LOS RESULTADOS DE ESTE ESTUDIO, PROVEAN, AL MENOS, ESTOS BENEFICIOS:

Evaluar el apoyo de varios grupos de la comunidad hacia los programas de educación y rehabilitación.

Obtener una descripción de las actitudes diferentes de los padres hacia sus hijos subdotados.

Ayudar al desarrollo de un programa de educación especial.

Obtener información sobre las diferentes actitudes hacia la educación y los retardados mentales de acuerdo a niveles educativos, profesiones, y regiones del país.

Llevar a cabo un estudio paralelo entre diferentes culturas o países.

Validar las teorías que han servido de base a este estudio.

APPENDIX E

ATTITUDE-BEHAVIOR SCALE:

ABS-MR (SPANISH)

## ESCALA DE ACTITUDES Y COMPORTAMIENTO—MR

Por John E. Jordan

EXPLICACIONES

Este folleto contiene afirmaciones que indican cómo la gente piensa sobre ciertas cosas. En esta sección se le pedirá señalar para cada una de estas afirmaciones cómo otras personas piensan sobre los individuos retardados mentales en comparación con aquellos que no lo son. Este es un ejemplo:

EJEMPLO 1o.

1. Posibilidad de tener ojos azules

1. menos posibilidades
2. más o menos la misma
3. más posibilidades

Si otras personas creen que los individuos retardados mentales tienen menores posibilidades que la mayoría de la gente de tener ojos azules, Ud. debe encerrar en un círculo el número 1 como se indica arriba.

Si otras personas creen que los individuos retardados mentales tienen más posibilidades de tener ojos azules, Ud. debe encerrar en un círculo el número 3, como se indica a continuación:

1. Posibilidad de tener ojos azules

1. menos posibilidades
2. más o menos la misma
3. más posibilidades

Después de cada afirmación sigue una pregunta sobre qué tan seguro está Ud. de su respuesta. Suponga que Ud. respondió la pregunta del ejemplo sobre los "ojos azules" marcando en: "más o menos la misma".

Entonces debe Ud. indicar qué tan seguro estuvo Ud. de esta respuesta. Si Ud. se sentía seguro, debe encerrar en un círculo el número 3 como se indica a continuación en el ejemplo 2.

EJEMPLO 2o.

1. Posibilidad de tener ojos azules    2. Qué tan seguro está Ud. de su respuesta?

1. menos posibilidades
2. más o menos la misma
3. más posibilidades

1. no
2. más o menos seguro
3. seguro

ABS-I-MR

## Orientación: Sección I

En las afirmaciones que siguen, Ud. debe encerrar con un círculo el número que indica cómo otras personas comparan los individuos retardados mentales con los que no son retardados mentales, y luego indicar que tan seguro está Ud. de su respuesta. Por lo general, las personas están seguras de sus respuestas a algunas preguntas e inseguras de sus respuestas a otras preguntas. Es importante responder todas las preguntas, aunque Ud. tenga que adivinar algunas de las preguntas.

Otras personas generalmente creen lo siguiente sobre los individuos retardados mentales comparados con los que no lo son:

- |  |  |
|--|--|
| 1. Energía y vitalidad <del>¿</del>            | 2. Qué tan seguro está Ud. de su respuesta?  |
| 1. menos enérgicos                             | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. más enérgicos                               | 3. seguro                                    |
| 3. Capacidad para el trabajo escolar           | 4. Qué tan seguro está Ud. de su respuesta?  |
| 1. menor capacidad                             | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. mayor capacidad                             | 3. seguro                                    |
| 5. Memoria                                     | 6. Qué tan seguro está Ud. de su respuesta?  |
| 1. no tan buena                                | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. mejor                                       | 3. seguro                                    |
| 7. Interesado en prácticas sexuales no comunes | 8. Qué tan seguro está Ud. de su respuesta?  |
| 1. más interesado                              | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. menos interesado                            | 3. seguro                                    |
| 9. Puede llevar un buen matrimonio             | 10. Qué tan seguro está Ud. de su respuesta? |
| 1. menos capaz                                 | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. más capaz                                   | 3. seguro                                    |
| 11. Tendrá demasiados niños                    | 12. Qué tan seguro está Ud. de su respuesta? |
| 1. más que la mayoría                          | 1. no  |
| 2. más o menos lo mismo                        | 2. más o menos seguro                        |
| 3. menos que la mayoría                        | 3. seguro                                    |

ABS-I-MR

Otras personas generalmente creen lo siguiente sobre los individuos retardados mentales comparados con los que no son retardados:

- |   |  |
|---|--|
| 13. Fidelidad al (la) esposo (a)                                    | 14. Qué tan seguro está Ud. de su respuesta? |
| 1. menos fiel   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. más fiel   | 3. seguro                                    |
| 15. Tendrá cuidado de sus niños                                     | 16. Qué tan seguro está Ud. de su respuesta? |
| 1. menos que la mayoría   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. mejor que la mayoría   | 3. seguro                                    |
| 17. Tiende a obedecer las leyes                                     | 18. Qué tan seguro está Ud. de su respuesta? |
| 1. tiende menos   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. tiende más   | 3. seguro                                    |
| 19. Realiza un trabajo estable y confiable                          | 20. Qué tan seguro está Ud. de su respuesta? |
| 1. menos apto   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. más apto   | 3. seguro                                    |
| 21. Trabaja fuertemente   | 22. Qué tan seguro está Ud. de su respuesta? |
| 1. no tanto   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. más que la mayoría   | 3. seguro                                    |
| 23. Hace planes para el futuro                                      | 24. Qué tan seguro está Ud. de su respuesta? |
| 1. no es tan apto   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. es más apto  | 3. seguro                                    |
| 25. Prefiere divertirse ahora en - lugar de trabajar para el futuro | 26. Qué tan seguro está Ud. de su respuesta? |
| 1. más que la mayoría de la gente                                   | 1. no  |
| 2. más o menos lo mismo   | 2. más o menos seguro                        |
| 3. menos que la mayoría de la gente                                 | 3. seguro                                    |

ABS-I-MR

Otras personas generalmente creen lo siguiente sobre los individuos retardados mentales - comparados con los que no son retardados:

- |  |  |
|--|--|
| 27. Propenso a ser cruel con los demás                       | 28. Qué tan seguro está Ud. de su respuesta? |
| 1. más propenso  | 1. no  |
| 2. más o menos lo mismo                                      | 2. más o menos seguro                        |
| 3. menos propenso  | 3. seguro                                    |
| 29. Los retardados mentales son sexualmente.....             | 30. Qué tan seguro está Ud. de su respuesta? |
| 1. más libres que los demás                                  | 1. no  |
| 2. más o menos lo mismo                                      | 2. más o menos seguro                        |
| 3. menos libres que los demás                                | 3. seguro                                    |
| 31. Cantidad de iniciativa                                   | 32. Qué tan seguro está Ud. de su respuesta? |
| 1. menos que los demás                                       | 1. no  |
| 2. más o menos lo mismo                                      | 2. más o menos seguro                        |
| 3. más que los demás   | 3. seguro                                    |
| 33. Sostenerse económicamente                                | 34. Qué tan seguro está Ud. de su respuesta? |
| 1. menos capaz que los demás                                 | 1. no  |
| 2. más o menos lo mismo                                      | 2. más o menos seguro                        |
| 3. más capaz que los demás                                   | 3. seguro                                    |
| 35. Los retardados mentales prefieren                        | 36. Qué tan seguro está Ud. de su respuesta? |
| 1. estar solos   | 1. no  |
| 2. estar sólo con gente normal                               | 2. más o menos seguro                        |
| 3. estar con toda clase de personas                          | 3. seguro                                    |
| 37. Comparandose con otros la educación del retardado mental | 38. Qué tan seguro está Ud. de su respuesta? |
| 1. no es muy importante                                      | 1. no  |
| 2. es más o menos importante                                 | 2. más o menos seguro                        |
| 3. es una meta social importante                             | 3. seguro                                    |
| 39. Las leyes para los retardados mentales                   | 40. Qué tan seguro está Ud. de su respuesta? |
| 1. deben ser más estrictas                                   | 1. no  |
| 2. más o menos lo mismo                                      | 2. más o menos seguro                        |
| 3. deben ser menos estrictas                                 | 3. seguro                                    |

ABS-II-MR

## Orientaciones: Sección II

Esta sección contiene afirmaciones de las maneras en que otras personas algunas veces se comportan con la gente. Se le pide indicar para cada una de estas afirmaciones qué piensan generalmente otras personas sobre sus relaciones con los retardados mentales en las siguientes circunstancias. Debe Ud. indicar, luego, qué tan seguro está Ud. de su respuesta.

Otras personas generalmente creen que las personas mentalmente retardadas deberían:

- |  |  |
|--|--|
| 41. Jugar en los campos de juego de la escuela con otros niños que no son retardados mentales. | 42. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 43. Hacer visitas a las casas de otros niños que no son retardados mentales                    | 44. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 45. Ir a campamentos con otros niños que no son retardados mentales                            | 46. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 47. No recibir más de una tarea al tiempo, puesto que aprenden muy poco                        | 48. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente se cree  | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente no se cree   | 3. seguro                                    |
| 49. Pasar la noche en las casas de niños que no son retardados mentales                        | 50. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |



ABS-II-MR

Otras personas generalmente creen que las personas mentalmente retardadas deberían:

- |  |  |
|--|--|
| 51. Ir a fiestas con otros niños que no son retardados mentales  | 52. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 53. Ser empleado para un trabajo <u>solamente</u> si no hay personas normales calificadas buscando ese trabajo | 54. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente es aprobado  | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente no es aprobado   | 3. seguro                                    |
| 55. Vivir en el mismo vecindario con personas que no son retardadas mentales                                   | 56. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 57. Salir con una persona que no es retardada mental   | 58. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 59. Ir a cine con una persona que no es retardada mental   | 60. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 61. Casarse con una persona que no es retardada mental   | 62. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado   | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente es aprobado  | 3. seguro                                    |
| 63. Ser esterilizados ( los hombres )  | 64. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente es aprobado  | 1. no  |
| 2. indeciso  | 2. más o menos seguro                        |
| 3. generalmente no es aprobado   | 3. seguro                                    |

ABS-II-MR

Otras personas generalmente creen que las personas mentalmente retardadas deberían.

- |   |  |
|---|--|
| 65. Ser esterilizadas (las mujeres)   | 66. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente es aprobado   | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente no es aprobado  | 3. seguro                                    |
| 67. Ser deseables como amigos   | 68. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente es aprobado   | 3. seguro                                    |
| 69. Ser considerados como que tienen sex appeal (atractivo sexual)            | 70. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente si  | 3. seguro                                    |
| 71. Ser considerados peligrosos   | 72. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente si  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente no  | 3. seguro                                    |
| 73. Manejar máquinas que perforan huecos en objetos                           | 74. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no es aprobado  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente es aprobado   | 3. seguro                                    |
| 75. Confiársele dinero para gastos personales                                 | 76. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente si  | 3. seguro                                    |
| 77. Trabajar en ocupaciones que pueden desempeñar aunque casi no pueda hablar | 78. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente no  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente si  | 3. seguro                                    |

ABS-II-MR

Otras personas generalmente creen que  
las personas mentalmente retardadas  
deberían:

79. Obligarlos a arreglarselas  
completamente por si mismos

1. generalmente si
2. indeciso
3. generalmente no

80. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

ABS-III-MR

## Orientaciones: Sección III

Esta sección contiene afirmaciones de las maneras "correctas" o "morales" de comportarse con la gente. A Ud. se le pide indicar si personalmente está o no de acuerdo con cada afirmación en relación como Ud. cree debe comportarse hacia las personas retardadas mentales. Debe indicar luego qué tan seguro está Ud. de su respuesta.

En relación con personas retardadas mentales, cree Ud. que es generalmente correcto o incorrecto:

- |   |  |
|---|--|
| 81. Llevar a un niño retardado mental a campamentos con niños normales  | 82. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente correcto  | 3. seguro                                    |
| 83. Permitir que un niño retardado mental vaya a cine con niños normales                                      | 84. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente correcto  | 3. seguro                                    |
| 85. Permitir que un niño retardado mental pase la noche con un niño normal                                    | 86. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente correcto  | 3. seguro                                    |
| 87. Llevar a un niño retardado mental a una fiesta con niños normales   | 88. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente correcto  | 3. seguro                                    |
| 89. El gobierno debe pagar <u>parte</u> del costo de la educación primaria para los niños retardados mentales | 90. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto  | 1. no  |
| 2. indeciso   | 2. más o menos seguro                        |
| 3. generalmente correcto  | 3. seguro                                    |

ABS-III-MR

En relación con personas retardadas mentales, crea Ud. que es generalmente correcto o incorrecto

- |  |   |
|--|---|
| 91. El gobierno debe pagar <u>todo</u> el costo de la educación <u>primaria</u> para los niños retardados mentales   | 92. Qué tan seguro está Ud. de su respuesta?  |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |
| 93. El gobierno debe pagar <u>todo</u> el costo de la educación <u>secundaria</u> para los niños retardados mentales | 94. Qué tan seguro está Ud. de su respuesta?  |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |
| 95. El gobierno debe pagar <u>parte</u> de los costos médicos relacionados con la incapacidad                        | 96. Qué tan seguro está Ud. de su respuesta?  |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |
| 97. El gobierno debe pagar <u>todos</u> los costos médicos relacionados con su incapacidad                           | 98. Qué tan seguro está Ud. de su respuesta?  |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |
| 99. El gobierno debe darle dinero para alimentos y ropa  | 100. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |
| 101. Mezclarse libremente con personas no retardadas mentales en las fiestas   | 102. Qué tan seguro está Ud. de su respuesta? |
| 1. generalmente incorrecto   | 1. no   |
| 2. indeciso  | 2. más o menos seguro                         |
| 3. generalmente correcto   | 3. seguro                                     |

ABS-III-MR

En relación con personas retardadas mentales, crea Ud. que es generalmente correcto o incorrecto:

- |   |   |
|---|---|
| <p>103. Salir con alguien que no es retardado mental</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p>         | <p>104. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>105. Ir al cine con alguien que no es retardado mental</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p>    | <p>106. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>107. Casarse con alguien que no es retardado mental</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p>       | <p>108. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>109. Ser soldado en el ejército</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p>                           | <p>110. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>111. Proveer leyes especiales para su protección</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p>          | <p>112. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>113. Proveer ayuda especial para movilizarse en la ciudad</p> <p>1. generalmente incorrecto<br/>2. indeciso<br/>3. generalmente correcto</p> | <p>114. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |
| <p>115. Esterilizar a los retardados mentales</p> <p>1. generalmente correcto<br/>2. indeciso<br/>3. generalmente incorrecto</p>                | <p>116. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>2. más o menos seguro<br/>3. seguro</p> |

- 12-

ABS-III-MR

En relación con personas retardadas mentales,  
crea Ud. que es generalmente correcto o incorrecto.

- |  |   |
|--|---|
| <p>117. Poner a todos los retardados mentales en clases separadas, aparte de los niños normales</p> <p>1. generalmente correcto<br/>         2. indeciso<br/>         3. generalmente incorrecto</p> | <p>118. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>         2. más o menos seguro<br/>         3. seguro</p> |
| <p>119. Reservar ciertos trabajos para los retardados mentales</p> <p>1. generalmente incorrecto<br/>         2. indeciso<br/>         3. generalmente correcto</p>                                  | <p>120. Qué tan seguro está Ud. de su respuesta?</p> <p>1. no<br/>         2. más o menos seguro<br/>         3. seguro</p> |

ABS-IV-MR

## Orientaciones Sección IV

Esta sección contiene afirmaciones sobre las maneras como la gente se comporta algunas veces con los demás. Se le pide a usted indicar para cada una de estas afirmaciones si usted personalmente se comportaría hacia las personas retardadas mentales de acuerdo con estas afirmaciones. Debe también indicar qué tan seguro está usted de su respuesta.

En relación con una persona retardada mental, usted :

- |  |   |
|--|---|
| 121. Compartiría un asiento en el tren durante un largo viaje. | 122. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 123. Tendría a tal persona como compañera de trabajo.          | 124. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 125. Tendría a tal persona trabajando para Ud.                 | 126. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 127. Viviría en la casa o apartamento vecino.                  | 128. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 129. La invitaría a una fiesta en su casa                      | 130. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |



ABS-IV-MR

En relación con una persona  
retardada mental usted :

- |   |   |
|---|---|
| 131. Aceptaría una invitación<br>a cenar en su casa.            | 132. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |
| 133. Iría al cine con esa persona                               | 134. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |
| 135. Saldrían juntos  | 136. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |
| 137. Permitiría que su hijo o hija<br>salieran con esa persona  | 138. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |
| 139. Permitiría que un hijo o hija<br>se casara con esa persona | 140. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |
| 141. Se sentiría sexualmente<br>cómodo con él (ella)            | 142. Qué tan seguro está Ud. de su respuesta? |
| 1. no   | 1. no   |
| 2. no sé  | 2. más o menos seguro                         |
| 3. sí   | 3. seguro                                     |

ABS-IV-MR

En relación con una persona retardada  
mental usted:

- |  |   |
|--|---|
| 143. Gozaría trabajando con los retardados mentales.   | 144. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 145. Gozaría trabajando con los retardados mentales tanto como con otros incapacitados                 | 146. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 147. Gozaría trabajando con los retardados mentales que también tuvieran problemas emocionales         | 148. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 149. Emplearía a los retardados mentales si usted fuera empresario                                     | 150. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 151. Desearía tener en su clase a los retardados mentales si usted fuera un maestro                    | 152. Qué tan seguro está Ud. de su respuesta? |
| 1. no  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. sí  | 3. seguro                                     |
| 153. Exigiría que los retardados mentales fueran esterilizados si usted tuviera autoridad para hacerlo | 154. Qué tan seguro está Ud. de su respuesta? |
| 1. sí  | 1. no   |
| 2. no sé   | 2. más o menos seguro                         |
| 3. no  | 3. seguro                                     |

ABS-IV-MR

En relación con una persona retardada mental usted:

155. Separaría a los retardados mentales del resto de la sociedad si usted tuviera autoridad para hacerlo
1. sí  
2. no sé  
3. no
156. Qué tan seguro está Ud. de su respuesta?
1. no  
2. más o menos seguro  
3. seguro
157. Creería que el cuidado de las personas retardadas mentales es una evidencia del desarrollo social del país
1. no  
2. no sé  
3. sí
158. Qué tan seguro está Ud. de su respuesta?
1. no  
2. más o menos seguro  
3. seguro
159. Proveería, si pudiera, clases especiales para los retardados mentales en las escuelas regulares
1. no  
2. no sé  
3. sí
160. Qué tan seguro está Ud. de su respuesta?
1. no  
2. más o menos  
3. seguro

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ABS-V-MR

## Orientaciones: Sección V

Esta sección contiene afirmaciones de sentimientos reales que la gente pueda tener hacia las personas retardadas mentales. A usted se le pide indicar que siente hacia las personas retardadas mentales comparadas con personas normales. Debe usted indicar luego qué tan seguro está usted de su respuesta.

Qué siente usted en realidad hacia personas retardadas mentales comparadas con otras que no son retardadas mentales.

161. Desagrado

1. más
2. más o menos lo mismo
3. menos

162. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

163. Temor

1. más
2. más o menos lo mismo
3. menos

164. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

165. Terror

1. más
2. más o menos lo mismo
3. menos

166. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

167. Abominación

1. más
2. más o menos lo mismo
3. menos

168. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

169. Consternación

1. más
2. más o menos lo mismo
3. menos

170. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

ABS-V-MR

Qué siente usted en realidad hacia personas retardadas mentales comparadas con otras que no son retardadas mentales.

171. Odio

1. más
2. más o menos lo mismo
3. menos

173. Repugnancia

1. más
2. más o menos lo mismo
3. menos

175. Desprecio

1. más
2. más o menos lo mismo
3. menos

177. Mucho desagrado

1. más
2. más o menos lo mismo
3. menos

179. Náusea

1. más
2. más o menos lo mismo
3. menos

181. Confusión

1. más
2. más o menos lo mismo
3. menos

172. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

174. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

176. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

178. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

180. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

182. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

ABS-V-MR

Qué siente usted en realidad hacia personas retardadas mentales comparadas con otras que no son retardadas mentales.

183. Negativismo

1. más
2. más o menos lo mismo
3. menos

185. Comodidad

1. menos
2. más o menos lo mismo
3. más

187. Intranquilidad

1. más
2. más o menos lo mismo
3. menos

189. Incomodidad

1. más
2. más o menos lo mismo
3. menos

191. Descanso

1. menos
2. más o menos lo mismo
3. mas

193. Tensión

1. más
2. más o menos lo mismo
3. menos

184. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

186. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

188. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

190. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

192. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

194. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

ABS-V-MR

Que siente usted en realidad hacia personas retardadas mentales comparadas con otras que no son retardadas mentales.

195. Malo

1. más
2. más o menos lo mismo
3. menos

197. Calma

1. menos
2. más o menos lo mismo
3. mas

199. Felicidad

1. menos
2. más o menos lo mismo
3. mas

196. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

198. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

200. Qué tan seguro está Ud. de su respuesta?

1. no
2. más o menos seguro
3. seguro

ABS-VI-MR

## Orientaciones: Sección VI

Esta sección contiene afirmaciones sobre diferentes clases de experiencias reales que usted ha tenido con personas retardadas mentales. Si la afirmación es aplicable a usted encierre el sí en un círculo; si no, debe encerrar el no.

Experiencias o contactos con los retardados mentales:

- |   |  |
|---|--|
| 201. Haber compartido un asiento en un bus, tren, o avión | 202. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                             | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 203. Haber comido en la misma mesa en un restaurante      | 204. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                             | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 205. Haber vivido en el mismo vecindario                  | 206. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                             | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 207. Haber trabajado en el mismo lugar                    | 208. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                             | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 209. Haber tenido a tal persona como jefe o empleado      | 210. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                             | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |



ABS-VI-MRExperiencias o contactos con los retardados mentales.

- |   |  |
|---|--|
| 211. Haber trabajado para ayudar a estas personas sin recibir pago por ello | 212. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 213. Tener conocidos así  | 214. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 215. Tener buenos amigos así  | 216. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 217. Haber regalado dinero, ropas, etc., para personas así                  | 218. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 219. Tener esposo (esposa) así  | 220. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 221. Yo mismo soy así   | 222. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí   | 1. no me aplica<br>2. desagradable<br>3. regular<br>4. agradable                 |

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ABS-VI-MR

Experiencias o contactos con los retardados mentales.

- |  |  |
|--|--|
| 223. Mi mejor amigo es así                                 | 224. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                              | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 225. Haber recibido pago por trabajar con personas así     | 226. Ha sido esta experiencia agradable o desagradable?                          |
| 1. sí<br>2. no   | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 227. Mis hijos han jugado con niños así                    | 228. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                              | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 229. Mis hijos han asistido al colegio con niños así       | 230. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                              | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |
| 231. Haber apoyado impuestos adicionales para su educación | 232. Ha sido esta experiencia agradable o desagradable?                          |
| 1. no<br>2. inseguro<br>3. sí                              | 1. no he tenido tal experiencia<br>2. desagradable<br>3. regular<br>4. agradable |

ABS-VI-MRExperiencias o contactos con los retardados mentales

- |  |   |
|--|---|
| 233. Haber trabajado para conseguirles ocupación     | 234. Ha sido esta experiencia agradable o desagradable? |
| 1. no  | 1. no he tenido tal experiencia                         |
| 2. inseguro  | 2. desagradable   |
| 3. sí  | 3. regular  |
|  | 4. agradable  |
| 235. Haber gozado sexualmente con tales personas     | 236. Ha sido esta experiencia agradable o desagradable? |
| 1. no  | 1. no he tenido tal experiencia                         |
| 2. inseguro  | 2. desagradable   |
| 3. sí  | 3. regular  |
|  | 4. agradable  |
| 237. Haber estudiado sobre tales personas            | 238. Ha sido esta experiencia agradable o desagradable? |
| 1. no  | 1. no he tenido tal experiencia                         |
| 2. sí  | 2. desagradable   |
|  | 3. regular  |
|  | 4. agradable  |
| 239. Haber trabajado como maestro de tales personas. | 240. Ha sido esta experiencia agradable o desagradable? |
| 1. no  | 1. no he tenido tal experiencia                         |
| 2. sí  | 2. desagradable   |
|  | 3. regular  |
|  | 4. agradable  |

CUESTIONARIO PERSONAL

Esta parte del folleto trata sobre muchas cosas. Para los propósitos de este estudio, las respuestas de todas las personas son importantes.

Parte del cuestionario se refiere a información personal sobre usted. Puesto que el cuestionario es completamente anónimo y confidencial, usted puede responder libremente todas las preguntas sin temor de ser identificado. Es importante para el estudio obtener su respuesta para cada pregunta.

Por favor lea cuidadosamente cada pregunta y no omita ninguna. Conteste encerrando en un círculo la respuesta que usted escoja.

241. Por favor, indique su sexo encerrando en un círculo el número correcto:

- 1 . mujer
- 2 . hombre

242. Por favor, indique su edad como sigue:

- 1 . menos de 20 años
- 2 . 21 - 30
- 3 . 31 - 40
- 4 . 41 - 50
- 5 . 51 y más

243. Abajo hay unas listas de diferentes clases de escuelas o niveles educacionales. En relación con estos diferentes niveles de educación, con cuál ha tenido usted la mayor experiencia profesional o de trabajo o de cuál tiene usted mayor conocimiento? Esto no se refiere a su propia educación sino a su trabajo profesional o experiencias relacionadas con la educación.

- 1 . no ha tenido tal experiencia
- 2 . escuela primaria
- 3 . escuela secundaria
- 4 . universidad
- 5 . otros tipos

244. Cuál es su estado civil ?

- 1 . casado
- 2 . soltero
- 3 . divorciado
- 4 . viudo
- 5 . separado
- 6 . unión libre

245. Cuál es su religión ?

- 1 . prefiero no responder
- 2 . Católico
- 3 . Protestante
- 4 . Judío
- 5 . otra o ninguna

246. Aproximadamente cuál es la importancia de su religión en su vida diaria ?

- 1 . prefiero no responder
- 2 . no tengo religión
- 3 . no muy importante
- 4 . bastante importante
- 5 . muy importante

247. Aproximadamente que educación tiene Ud. ?

- 1 . 6 años de escolaridad o menos ( 0 - 6 )
- 2 . 9 años de escolaridad o menos ( 6 - 9 )
- 3 . 12 años de escolaridad o menos ( 9 - 12 )
- 4 . algún tiempo en la universidad
- 5 . grado universitario
- 6 . especialización postgrado

248. Hay personas más fijas en sus costumbres que otras. Como se cataloga Ud. ?

- 1 . encuentro que es muy difícil cambiar
- 2 . encuentro que es algo difícil cambiar
- 3 . encuentro que es más o menos fácil cambiar
- 4 . encuentro que es muy fácil cambiar mis costumbres

249. Algunas personas creen que al criar los niños, se deben ensayar nuevos métodos cuando sea posible. Otras creen que ensayar nuevos métodos es peligroso. Cómo se siente Ud. sobre la siguiente afirmación ?

" Cuando sea posible, deben ensayarse nuevos métodos para criar niños."

- 1 . fuerte desacuerdo
- 2 . leve desacuerdo
- 3 . leve acuerdo
- 4 . fuerte acuerdo

250. Mucha gente ha discutido la planificación familiar para el control de la natalidad. Cómo se siente Ud. hacia una pareja de casados que practican el control de la natalidad ? Cree Ud. que ellos están haciendo algo bueno o malo ? Si Ud. tuviera que decidir, diría Ud. que ellos están obrando correcta o incorrectamente? .

- 1 . siempre es incorrecto
- 2 . generalmente es incorrecto
- 3 . probablemente sea correcto
- 4 . siempre correcto

251. La gente tiene ideas diferentes sobre lo que se debiera hacer sobre la automatización y otras nuevas maneras de hacer las cosas. Cómo se siente Ud. hacia la siguiente afirmación ?

" La automatización y procedimientos similares modernos deben ser respaldados ( en el gobierno, los negocios y la industria ) puesto que eventualmente crean nuevos oficios y elevan el nivel de vida."

- 1 . fuerte desacuerdo
- 2 . leve desacuerdo
- 3 . leve acuerdo
- 4 . fuerte acuerdo

252. El dirigir un pueblo, una ciudad o cualquier otra organización gubernamental, es un oficio importante. Cómo se siente Ud. hacia la siguiente afirmación ?

" Los líderes políticos deben ser cambiados regularmente, aunque estén desempeñando bien su cargo".

1. fuerte desacuerdo
2. leve desacuerdo
3. leve acuerdo
4. fuerte acuerdo

253. Algunas personas consideran que un mayor presupuesto debe ser destinado por el gobierno departamental para la educación, aunque el hacer esto implique un aumento en los impuestos que Ud. paga. Cómo se siente Ud. hacia esto ?

1. fuerte desacuerdo
2. leve desacuerdo
3. leve acuerdo
4. fuerte acuerdo

254. Algunas personas consideran que un mayor presupuesto debe ser destinado por el gobierno nacional para la educación, aunque el hacer esto implique un aumento en los impuestos que Ud. paga. Cómo se siente Ud. hacia esto?

1. fuerte desacuerdo
2. leve desacuerdo
3. leve acuerdo
4. fuerte acuerdo

255. La gente tiene diferentes ideas sobre la planeación de la educación en su país.Cuál de las siguientes ideas cree Ud. es la mejor?

- 1.. la planeación educacional debe ser primordialmente dirigida por la iglesia
2. la planeación educacional debe ser encomendada enteramente a los padres
3. la planeación educacional debe ser dirigida primordialmente por cada ciudad o entidad del gobierno departamental
4. la planeación educacional debe ser dirigida primordialmente por el gobierno nacional
- 5.. la planeación educacional debe ser dirigida conjuntamente por la iglesia y el gobierno nacional

256. Respecto a su religión, hasta que punto observa Ud. las normas y regulaciones de ella ?

1. prefiero no responder
2. no tengo religión
3. a veces
4. generalmente
5. casi siempre

257. Es más fácil para mi seguir reglas, que hacer las cosas por mi mismo?

1. fuerte acuerdo
2. leve acuerdo
3. leve desacuerdo
4. fuerte desacuerdo

CUESTIONARIO : HP

Esta parte del cuestionario trata de sus experiencias y contactos con personas incapacitadas. Tal vez Ud. haya tenido mucho contacto con personas incapacitadas o haya estudiado sobre ellas. O al contrario, Ud. tal vez ha tenido poco o ningún contacto con personas incapacitadas, y tal vez nunca ha pensado sobre ellas.

258. A continuación hay una lista de tipos de incapacidad. En relación a estas incapacidades, con cuál ha tenido Ud. la mayor experiencia real ?

1. ciegos y parcialmente ciegos
2. sordos, parcialmente sordos o con defectos de lenguaje
3. paráliticos o personas con espasmos (temblores)
4. retardados mentales
5. problemas sociales o emocionales
6. sin experiencia
7. mutilados

En las preguntas siguientes, de la 259 al 263 incluida, Ud. debe referirse a la categoría de las personas incapacitadas que Ud. acaba de indicar.



259. Las preguntas siguientes tratan sobre la clase de experiencias que Ud. ha tenido con la categoría de las personas incapacitadas que Ud. indicó en la pregunta anterior. Si Ud. ha tenido más de una categoría de experiencia, por favor escoja la respuesta con el número más alto.
1. he leído o estudiado sobre personas incapacitadas por medio de libros, cine, conferencias u observaciones
  2. un amigo o familiar es incapacitado
  3. he trabajado personalmente con personas incapacitadas como maestro, consejero, voluntario, cuidando niños etc.
  4. yo mismo tengo un defecto bastante serio
260. Teniendo en cuenta todas las veces que Ud. ha hablado, trabajado, o de alguna otra manera tenido contacto personal con la categoría de personas incapacitadas como las mencionadas en la pregunta 258 más o menos cuántas veces ha tenido esas experiencias en total?
1. menos de 10 ocasiones
  2. entre 10 y 50 ocasiones
  3. entre 50 y 100 ocasiones
  4. entre 100 y 500 ocasiones
  5. más de 500 ocasiones
261. Cuando Ud. ha estado en contacto con esta categoría de personas incapacitadas qué tan fácil hubiera sido en general para Ud. haber evitado estar con estas personas incapacitadas?
1. no pude evitar el contacto
  2. generalmente podría haber evitado esos contactos personales solamente con gran dificultad
  3. generalmente podría haber evitado esos contactos personales solamente con dificultad
  4. generalmente podría haber evitado esos contactos personales con algunos inconvenientes
  5. generalmente podría haber evitado esos contactos personales sin ninguna dificultad o inconveniencia

262. Durante sus contactos con esta categoría de personas incapacitadas, tuvo Ud. alguna ganancia material, tal como recibir paga, adquirir créditos académicos o alguna otra ganancia ?

1. no, nunca he recibido dinero, créditos ni ninguna otra ganancia material
2. si, me han pagado por trabajar con personas incapacitadas
3. si, he adquirido créditos académicos u otra clase de ganancia material
4. si, he recibido paga y también créditos académicos

263. Si le han pagado por trabajar con personas incapacitadas, más o menos qué porcentaje de sus entradas se deriva de su trabajo con esas personas incapacitadas?

1. no hay experiencia de trabajo
2. menos del 25%
3. entre el 26 y el 50%
4. entre el 51 y 75%
5. más del 76%

264. Si alguna vez ha trabajado Ud. con cualquier categoría de personas incapacitadas para obtener ganancia personal ( por ejemplo, dinero u otra ganancia ) que oportunidades tuvo Ud. ( o tiene ) de cambiar de trabajo, es decir, de realizar algo que fuera ( o sea ) otra ocupación aceptable para Ud. ?

1. no he tenido tal experiencia
2. no se podía conseguir otro trabajo
3. otros trabajos no eran aceptables en absoluta para mí
4. otros trabajos no eran muy aceptables para mí
5. otros trabajos eran totalmente aceptables para mí

265. Ha tenido Ud. alguna experiencia con personas retardadas mentales?  
Teniendo en cuenta, todas las veces que Ud. ha hablado, trabajado  
o de alguna otra manera tenido contacto personal con retardados  
mentales, más o menos cuántas veces en total ha tenido Ud. esas  
experiencias ?

1. menos de 10 veces
2. entre 10 y 50 veces
3. entre 50 y 100 veces
4. entre 100 y 500 veces
5. más de 500 veces

266. Cómo se ha sentido Ud. , en general, en sus experiencias con perso-  
nas retardadas mentales?

1. no he tenido experiencias
2. ciertamente me disgustaron
3. no me gustaron mucho
4. me gustaron un poco
5. ciertamente gozé esas experiencias

SITUACIONES DE LA VIDA

Esta sección del folleto trata cómo se siente la gente acerca de varios aspectos o situaciones de la vida. Indique por favor cómo se siente Ud. sobre cada situación, encerrando en un círculo la respuesta que Ud. elija.

- |  |   |
|--|---|
| <p>267. Debería ser posible eliminar la guerra de una vez para siempre</p> <ol style="list-style-type: none"> <li>1. fuerte desacuerdo</li> <li>2. desacuerdo</li> <li>3. acuerdo</li> <li>4. fuerte acuerdo</li> </ol>  | <p>268. Qué tan seguro está Ud. de su respuesta?</p> <ol style="list-style-type: none"> <li>1. no</li> <li>2. no muy seguro</li> <li>3. bastante seguro</li> <li>4. muy seguro</li> </ol> |
| <p>269. El éxito depende en gran parte de la suerte y el destino</p> <ol style="list-style-type: none"> <li>1. fuerte acuerdo</li> <li>2. acuerdo</li> <li>3. desacuerdo</li> <li>4. fuerte desacuerdo</li> </ol>  | <p>270. Qué tan seguro está Ud. de su respuesta?</p> <ol style="list-style-type: none"> <li>1. no</li> <li>2. no muy seguro</li> <li>3. bastante seguro</li> <li>4. muy seguro</li> </ol> |
| <p>271. Algún día la mayoría de los misterios del mundo será revelada por la ciencia</p> <ol style="list-style-type: none"> <li>1. fuerte desacuerdo</li> <li>2. desacuerdo</li> <li>3. acuerdo</li> <li>4. fuerte acuerdo</li> </ol>                                | <p>272. Qué tan seguro está Ud. de su respuesta?</p> <ol style="list-style-type: none"> <li>1. no</li> <li>2. no muy seguro</li> <li>3. bastante seguro</li> <li>4. muy seguro</li> </ol> |
| <p>273. La pobreza puede eliminarse del mundo mediante el mejoramiento de métodos industriales y agrícolas</p> <ol style="list-style-type: none"> <li>1. fuerte desacuerdo</li> <li>2. desacuerdo</li> <li>3. acuerdo</li> <li>4. fuerte acuerdo</li> </ol>          | <p>274. Qué tan seguro está Ud. de su respuesta?</p> <ol style="list-style-type: none"> <li>1. no</li> <li>2. no muy seguro</li> <li>3. bastante seguro</li> <li>4. muy seguro</li> </ol> |
| <p>275. Con el aumento del conocimiento médico, el promedio de duración de la vida podrá alargarse a 100 años o más</p> <ol style="list-style-type: none"> <li>1. fuerte desacuerdo</li> <li>2. desacuerdo</li> <li>3. acuerdo</li> <li>4. fuerte acuerdo</li> </ol> | <p>276. Qué tan seguro está Ud. de su respuesta?</p> <ol style="list-style-type: none"> <li>1. no</li> <li>2. no muy seguro</li> <li>3. bastante seguro</li> <li>4. muy seguro</li> </ol> |

277. Algún día los desiertos se convertirán en buena tierra de labranza, mediante la aplicación de la ingeniería y la ciencia.
1. fuerte desacuerdo
  2. desacuerdo
  3. acuerdo
  4. fuerte acuerdo
278. Qué tan seguro está Ud. de su respuesta?
1. no
  2. no muy seguro
  3. bastante seguro
  4. muy seguro
279. La educación sólo puede ayudar a la gente a desarrollar sus capacidades naturales; no puede cambiar fundamentalmente a las personas
1. fuerte acuerdo
  2. acuerdo
  3. desacuerdo
  4. fuerte desacuerdo
280. Qué tan seguro está Ud. de su respuesta?
1. no
  2. no muy seguro
  3. bastante seguro
  4. muy seguro
281. Cualquiera puede triunfar si trabaja fuertemente
1. fuerte desacuerdo
  2. desacuerdo
  3. acuerdo
  4. fuerte acuerdo
282. Qué tan seguro está Ud. de su respuesta?
1. no
  2. no muy seguro
  3. bastante seguro
  4. muy seguro
283. Casi todos los problemas humanos actuales serán resueltos en el futuro
1. fuerte desacuerdo
  2. desacuerdo
  3. acuerdo
  4. fuerte acuerdo
284. Qué tan seguro está Ud. de su respuesta?
1. no
  2. no muy seguro
  3. bastante seguro
  4. muy seguro

RETARDO MENTAL

Esta sección del cuestionario trata de la información sobre el retardo mental. Por favor encierre en un círculo su respuesta.

285. Cuál de los siguiente métodos es el más preferido para educar a niños incapacitados mentales:

1. darle al niño trabajos manuales (artesanías, tejer).
2. poner al niño en una escuela de entrenamiento vocacional
3. elaborar un programa práctico y menos académico
4. darle el mismo material que se presenta al niño normal, pero permitiéndole más tiempo para practicar

286. Al educar al niño incapacitado mental ( I. Q. 50 - 75), el entrenamiento educacional debe empezar:

1. al entrar al bachillerato
2. en el segundo año de bachillerato
3. en el último año de bachillerato
4. cuando el niño entra al colegio

287. El propósito principal del entrenamiento al incapacitado mental es:

1. adaptación social
2. proficiencia académica
3. adecuarlo ocupacionalmente
4. ajuste ocupacional

288. Los niños normales rechazan a los niños mentalmente incapacitados porque:

1. poca capacidad de aprendizaje
2. su comportamiento es inaceptable
3. generalmente son sucios y pobres
4. no aprenden con facilidad

289. Las necesidades emocionales de los incapacitados mentales son:

1. mayores que las de los niños normales
2. las mismas de los niños normales
3. menores que las de los niños normales
4. no hay que preocuparse de ellos

290. El lugar adecuado para el que aprende con lentitud (I. Q. 75 - 90 ) es:

1. el salón de clase de los normales
2. una clase especial
3. en artes vocacionales
4. la clase de los normales hasta los 16 años y luego debe salir del colegio.

291. Por lo general, en el colegio el que aprende lentamente:

1. se le proporcionan bastantes experiencias de éxito
2. encuentra muchos fracasos
3. es un líder
4. es agresivo

292. En las calificaciones del que aprende con lentitud, el maestro:

1. debe ser realista, si el niño es un fracaso, rajarlo
2. debe calificarlo de acuerdo con sus realizaciones respecto a sus capacidades.
3. no debe preocuparse por sus calificaciones
4. debe calificarlo de acuerdo a su cociente intelectual ( I. Q)

293. Los estudios sobre el cambio de inteligencia de niños pre-escolares demuestran que:

1. puede ser realizado un cambio intelectual
2. no se puede demostrar ningún cambio
3. el cambio se efectúa más fácilmente con niños de más edad
4. el cociente intelectual puede aumentarse por lo menos 20 puntos si un entrenamiento acelerado empieza suficientemente temprano.

294. El desarrollo y organización de un programa educacional extenso para los incapacitados mentales depende de:

1. un diagnóstico adecuado
2. adecuadas facilidades de entrenamiento
3. un psiquiatra
4. una organización de padres y maestros

295. Los incapacitados mentales son físicamente:

1. mucho más altos
2. mucho más bajos
3. más pesados
4. aproximadamente lo mismo que los niños normales de su edad

296. El niño incapacitado mental:

1. parece bastante diferente de los otros niños
2. necesita un programa educacional especialmente diseñado para sus necesidades y características
3. nunca puede mantenerse a si mismo
4. no puede beneficiarse de ningún programa educacional.

297. La persona incapacitada mental generalmente llega a ser:

1. un artesano muy hábil
2. un profesional
3. un trabajador semi-calificado
4. una persona que no se puede emplear

298. Los incapacitados educacionalmente tienen:

1. por lo menos una inteligencia promedio
2. inteligencia superior solamente
3. siempre una inteligencia retardada
4. pueden tener una inteligencia superior, promedia o un poco retardada

299. Los incapacitados mentales tienen:

1. un desarrollo motor notablemente inferior
2. un desarrollo motor superior
3. un desarrollo físico superior
4. un desarrollo motor más o menos promedial (normal)

300. Las reacciones del público hacia el niño retardado parecen ser:

1. de rechazo
2. alguna comprensión pero no aceptación en total
3. de aceptación
4. expresión de sentimientos de aceptación pero realmente deseando el rechazo



APPENDIX F

SUBJECTS ' COMMENTS FROM THE ABS-MR

## SUBJECTS' COMMENTS FROM THE ABS-MR

This Appendix contains the translated comments which subjects completing the Attitude-Behavior Scale on Mental Retardation wrote on the pages of their copies. Their comments are presented not only as a matter of curiosity to the reader, but as a potential source of information from which future item refinements can be made. These comments also provide a limited gauge of the subjects' interpretation of a given item and their reaction. The comments follow the sequence of the questionnaire; references to Levels or items, or to specific item choices, have been indicated as accurately as possible.

Level 1, item 5 (memory), response 3 (better)

"For some things bad--like information"

Level 1, item 7 (unusual sex)

"Man or woman?" (Comment appeared on two questionnaires.)

Level 1, item 9 (good marriage), response 2 (about the same)

"If he's brought up properly"

Level 1, item 11 (many children)

"Depends on degree of retardation"

Level 1, item 13 (faithful), response 2 (about the same)

"If he's brought up properly"

Level 1, item 19 (steady work)

"If manual"

"In a type of work appropriate for their  
intelligence"

Level 1, item 33 (self-support)

"If we rehabilitate him"

Level 1, item 35 (MR prefer) response 1 (to be by themselves)

"Not always"

"In some cases"

response 3 (to be with all  
people equally)

"When they are little"

Level 2

"I believe the answers would be more precise if they were tied to concrete situations. For example, in the case of working with mental retardates, an attitude may differ for helping them have confidence in themselves from that of giving them spending money."

Level 2, item 45 (camping trips)

"We don't go camping in Colombia."

Level 2, item 63 (sterilized--males)

"Stupid question"

"Should be clarified further through conferences"

Level 2, item 65 (sterilized--females)

"The same"

"It is not approved because of lack of documentation on this subject."

"It is not permitted to do this kind of sterilization on men or women."

Level 2, item 79 (provide--self)

"Colombian law appoints a guardian."

Level 3, item 81 (camping trip)

"We don't go camping in Colombia."

response 2 (undecided)

"It should be right, but not in our parts."

response 3 (usually right)

"What degree of mental retardation?"

"If the retardation is slight"

"Depends on the education of the children and on the care"

Level 3, item 91 (elem. educ. cost), response 1 (usually wrong)

"In the case of parents with limited resources"

Level 3, item 93 (sec. educ. cost)

"Depends on the economic condition" (Comment appeared on two questionnaires)

"According to our program I don't believe there are retardates who take secondary courses."

Level 3, item 95 (medical cost--govt. part)

"If he's poor"

response 3 (usually right)

"If other means are not available"

Level 3, item 97 (medical cost--govt. all)

"If the person is without resources" (Comment appeared on two questionnaires.)

response 2 (undecided)

"Depends on the economic resources of the family"

Level 3, item 99 (food, clothing--govt.) response 1,  
(Usually wrong)

"Depends on the economic resources of the family"

response 2 (undecided)

"When the retardate is too poor and has no resources"

response 3 (usually right)

"To the dispossessed"

Level 3, item 101 (parties), response 2 (undecided)

"Depends on the acceptance or rejection of other  
children"

response 3 (usually right)

"So long as they don't use liquor"

Level 3, item 103 (date non-MR)

"Depends on the degree of retardation"

response 3 (usually right)

"If she is someone who accepts him"

"They don't do it in our parts"

Level 3, item 109 (soldier)

"Depends on the degree of retardation"

"Colombian laws prohibit it"

Level 3, item 115 (sterilize MR)

"This would be criminal Nazism"

"Despite the fact that I am Catholic and the Church  
does not permit it, there are many who disagree  
here"

response 1 (usually right)

"Although the Catholic Church does not permit me  
to think so, I believe that it should be done  
in order to avoid future problems, because the  
Church speaks of planning in general, but it  
does not provide the norms."

"This should always be done when children with some hereditary traits come into the world"

Level 3, item 117 (separate classes)

"The most capable can be taught with normal children"

"All right, if they don't know they're separated because of their retardation"

"After attaining the necessary maturity, they can be placed in common classes"

Level 3, item 117 (separate classes), response 1 (usually right)

"What degree of mental retardation?"

Level 4, item 121 (share seat)

"The sociable thing to do--but a bother"

"If he is family"

Level 4, item 123 (fellow worker)

"Depends on degree of retardation"

"Depends on mental capacity and activities"

"Not in all activities--necessary to specify--nothing intellectual"

Level 4, item 125 (employee)

"Depends on the work"

response 2 (don't know)

"In order to help him"

response 3 (yes)

"For some jobs"

"Depends on the job"

Level 4, item 127 (next door), response 2 (don't know)

"Depends on their behavior"

Level 4, item 129 (party)

"Depends on the other guests and their attitudes toward the mentally retarded"

response 2 (don't know)

"What kind of group?"

"Depends on their state of rehabilitation"

response 3 (yes)

"Depends on the guests" (Comment appeared on two questionnaires)

Level 4, item 133 (movies) response 2 (don't know)

"Not 'seriously'"

Level 4, item 137 (progeny--date)

"Depends on the degree of retardation"

"Depends on the daughter"

response 1 (no)

"Not frequently"

response 3 (yes)

"Depends on my child's age--and knowing where they are--and why"

"Depends on the individual retardate"

Level 4, item 141 (sexually comfortable)

"One cannot answer this question a-priori"

Level 4, item 143 (working with MR)

"One cannot answer this question a-priori"

"To help them?"

"As a teacher?"

response 2 (don't know)

"Superior, inferior, or equal basis?"

response 3 (yes)

"Depends"

Level 4, item 145 (MR vs other)

"One cannot answer this question a-priori"

"To help them?"

response 2 (don't know)

"On what basis?"

Level 4, item 147 (MR/emotion)

"One cannot answer this question a-priori"

response 2 (don't know)

"As an educator?"

Level 4, item 149 (hire MR)

"Depends on the activities he may have had to develop and the degree of retardation"

"Depends on the degree of retardation"

response 2 (don't know)

"Depends on what you may want--sometimes they are more efficient"

response 3 (yes)

"Employer of what?"

"So long as the work is appropriate for the retardate"

Level 4, item 151 (MR in class)

"But not with normal children"

"If that were my field of specialization"

Level 4, item 153 (MR sterilized)

"And don't ask this criminal stupidity!"

"Depends on the case" (Comment appeared on two questionnaires.)

response 3 (yes)

"In order not to perpetuate the traits"



"Despite the fact that I am Catholic and the Church does not permit it, there would be many who disagree here."

Level 5

"Love?"

"Part V should be more specific in the social area--in the masochistic area etc."

Level 5, item 161 (disliking)

"Depends if he is physically deformed"

Level 5, item 167 (loathing)

"Don't understand this question"

Level 5, item 171 (hating)

"I don't hate anyone"

"Must I hate?"

Level 5, item 173 (revulsion)

"Depends on physical appearance"

"If physically disfigured"

Level 5, item 177 (distaste)

"Depends on his behavior"

Level 5, item 181 (confused)

"I would say 'worried' by their mental condition"

"Feel sorry for them"

Level 5, item 183 (negative)

"I want to help them always"

Level 5, item 183 to 200

"None of the following. I cannot be happy with such a problem, let alone be calm and happy. These questions are absurd because of the lack of humanity."

Level 5, item 199 (happy)

"Depends on degree of retardation"

Level 6, item 201 (shared seat)

"Only with my son"

Level 6, item 219 (husband/wife)

"Son"

Level 6, item 227 (children play)

"I'm not married, nor do I have children"

response 1 (no)

"Not applicable to me"

Level 6, item 229 (children/school), response 1 (no)

"Not applicable to me"

Level 6, item 237 (studied about)

"A little" (Comment appeared on two questionnaires.)

Personal questionnaire, item 248 (self-change)

"Which ways?"

responses 1 and 3 (difficult,  
somewhat easy)

"Number 1 generally, but number 3 in teaching"

Personal questionnaire, item 250 (birth control)

"Don't know"

"Depends on the economic, social, and moral  
situation"

"Depends on how such practices psychologically and  
physically affect the individuals"

response 1 (always wrong)

"Resources are not limited by the great number of  
inhabitants, but rather because of bad distribu-  
tion of wealth which nature provides--and also  
because of ignorance"

response 3 (always right)

"I hope the USA helps solve birth control in Colombia"

Personal questionnaire, item 252 (political leaders)

response 1 (strongly disagree)

"Not if they're honest"

response 2 (slightly disagree)

"Here one should take the community into account"

Personal questionnaire, item 253 (aid education/local)

"Reduction of the defense budget is the solution rather than increasing the tax budget for education"

Personal questionnaire, item 254 (aid education/national)

"I believe the government can make cuts in the bureaucracy--Congress and the Assembly--in order to direct this money for education, but without increasing taxes very much"

Personal questionnaire, item 255 (educ. planning)

"Educational planning should be primarily directed by teachers"

"None"

response 2 (parents)

"Who have received a good education"

"Both" (Indicated to apply to responses 2 and 3)

Personal questionnaire, item 257 (follow rules)

"This question is ambiguous; it depends whether it refers to daily attitudes, family obligations, social obligations, etc."

"Depends on the rules"

responses 1 and 4 (agree strongly, disagree strongly)

"In work, number 1; in personal matters, number 4"

HP Contact

"I lack the knowledge to answer any of these questions"

HP, item 259 (nature)

"Had no experience"

response 2 (friend or relative)

"Was"

HP, item 260 (amount)

"I am not (can't) answering. The retardate is my grandson. If you give me other questions, perhaps I would answer them"

HP, item 262 (gain, response 2 (paid))

"Very little"

Life situations, item 273 (poverty eliminate), response 3 (agree)

"Also depends on education, or rather man's understanding for his fellow man"

Life situations, item 281 (work succeed)

"This is a question of method"

Life situations, item 283 (problem solved)

"We don't know"

response 3 (agree)

"Psychology properly applied (with due respect to statesmen and religious leaders) will be the only science capable of saving the world"

MR Knowledge, item 285 (educating)

"What degree of mental retardation?"

"Depends on the type of retardation"

"Depends on the type of retardation and abilities"

## response 3 (program)

"Number 3 should have number 1 as its goal."

MR Knowledge, item 286 (occup. trng.)

"Should begin before" (the child enters school)

"Before entering high school"

MR Knowledge, item 287 (educ. goal)

"Depends on the degree of mental retardation"

MR Knowledge, item 288 (rejection of MR)

"Not always so"

"They don't know them and therefore don't understand them"

MR Knowledge, item 289 (emotional needs)

"Depends on the degree of retardation"

response 3 (not as strong)

"Depends on the deficiency"

MR Knowledge, item 290 (slow learner/placements)

"Not sure"

MR Knowledge, item 294 (comprehensive program)

"Development and organization are two different things"

MR Knowledge, item 295 (physically)

"One can't generalize so"

"According to my experience, I can't classify them into any of these numbers"

"One cannot respond since the type of cause of retardation is not specified (mongolism, cerebral palsy, etc.)"

MR Knowledge, item 296 (MR child), response 1 (looks different)

"Some"

MR Knowledge, item 297 (MR becomes)

"What degree of retardation?"

response 1 (skilled)

"Depends on whether the nation is interested  
and concerned or not"

MR Knowledge, item 298 (educationally handicapped)

"What is this--'educationally handicapped'?"

MR Knowledge, item 299 (motor development)

"Depends on the syndrome"

"These items do not present objective possibilities"

APPENDIX G

ABS-MR: BASIC VARIABLE LIST BY  
IBM CARD AND COLUMN

ABS-MR: BASIC VARIABLE LIST BY IBM CARD AND COLUMN

Variable <sup>1</sup>	Card	Column	Page	Item
1. Stereotype	1	36,38 alter to 74	2-4	1,3 alter to 39
2. Normative	2	36,38 alter to 74	5-7	41,43 79
3. Moral Evaluation	3	36,38 alter to 74	8-11	81,83 119
4. Hypothetical	4	36,38 alter to 74	12-14	121,123 159
5. Feeling	5	36,38 alter to 74	15-17	1,3 39
6. Action	6	36,38 alter to 74	18-20	41,43 79
8. Stereotype	1	37,39 alter to 75	2-4	2,4 40
9. Normative	2	37,39 alter to 75	5-7	42,44 80
10. Moral Evaluation	3	37,39 alter to 75	8-11	82,84 120
11. Hypothetical	4	37,39 alter to 75	12-14	122,124 160
12. Feeling	5	37,39 alter to 75	15-17	2,4 40
13. Action	6	37,39 alter to 75	18-20	42,44 80
15. Efficacy--Cont.	7	36,38 alter to 52	28,29	107,109 123
16. Efficacy--Int.	7	37,39 alter to 53	28,29	108,110 124
17. MR Knowledge	7	54-69	30-32	125-140
18. HP Amount	1-7	28	26	100
19. HP Avoid	1-7	29	26	101
20. HP Income	1-7	31	26	103
21. HP Alter	1-7	32	27	104
22. MR Amount	1-7	33	27	105
23. MR Enjoy	1-7	34	27	106
24. Age	1-7	10	21	82
25. Educ. Amount	1-7	15	21	87
26. Religion Impor.	1-7	14	22	86
27. Religion Adher.	1-7	24	24	96



28. Self Change	1-7	16	22	88
29. Child Rearing	1-7	17	23	89
30. Birth Control	1-7	18	23	90
31. Automation	1-7	19	23	91
32. Political Lead.	1-7	20	23	92
33. Rule Adher.	1-7	25	25	97
34. Local Aid	1-7	21	24	93
35. Federal Aid	1-7	22	24	94
36. Ed. Planning	1-7	23	24	95
37. Sex <sup>5</sup>	1-7	9	21	81
38. Ed. Contact Var.	1-7	11	21	83
39. Marital Status	1-7	12	22	84
40. Religion--Affil.	1-7	13	22	85
41. HP Category	1-7	26	25	98
42. HP Gain	1-7	30	26	102
43. Nation	1-7	1,2	face	none
44. Group (adm.)	1-7	3,4	face	none
45. Subject no.	1-7	5-7	none	none
46. Card no.	1-7	8	none	none
47. Group <sup>6</sup> (occup.)	1-7	80	none	none

<sup>1</sup>Based on ABS-MR 3968 edition

<sup>2</sup>Not used in i analysis

<sup>3</sup>K = Knowledge

<sup>4</sup>V = Value

<sup>5</sup>female = 1; male = 2

<sup>6</sup>Groups (col. 80)

1 = SER

2 = RST-E

3 = RST-S

4 = PMR

<sup>7</sup>Totals omitted but numbering system retained since computer program already written.

APPENDIX H  
DEVELOPMENTAL CHARACTERISTICS OF THE  
MENTALLY RETARDED

DEVELOPMENTAL CHARACTERISTICS OF THE MENTALLY RETARDED<sup>1</sup>

Degree of Mental Retardation	Pre-School Age 0-5 Maturation and Development	School Age 6-20 Training and Education	Adult 21 and Over Social and Vocational Adequacy
Mild	Can develop social and communication skills; minimal retardation in sensorimotor areas; often not distinguished from normal until later age.	Can learn academic skills up to approximately sixth grade level by late teens. Can be guided toward social conformity. "Educable"	Can usually achieve social and vocational skills adequate to minimum self-support but may need guidance and assistance when under unusual social or economic stress.
Moderate	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; can be managed with moderate supervision	Can profit from training in social and occupational skills; unlikely to progress beyond second grade level in academic subjects; may learn to travel alone in familiar places.	May achieve self-maintenance in unskilled or semi-skilled work under sheltered conditions; needs supervision and guidance when under mild social or economic stress.
Severe	Poor motor development; speech is minimal; generally unable to profit from training in self-help; little or no communication skills.	Can talk or learn to communicate; can be trained in elemental health habits; profits from systematic habit training.	May contribute partially to self-maintenance under complete supervision; can develop self-protection skills to a minimal useful level in controlled environment.

Profound	Gross retardation; minimal capacity for functioning in sensori-motor areas; needs nursing care.	Some motor development present; may respond to minimal or limited training in self-help.	Some motor and speech development; may achieve very limited self-care; needs nursing care.
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<sup>1</sup>Source unknown.

APPENDIX I

GLOSSARY

## GLOSSARY<sup>1</sup>

Approximation--see "simplex approximation."

Attitude--"Delimited totality of behavior with respect to something" (Guttman, 1950, p. 51).

Content--situation (action, feeling, comparison, circumstances) indicated in an attitude item; generally corresponds to "lateral struction."

Definitional statement--specification of characteristics proper to an item of a given level member, typically stated in phrase or clause form.

Definitional system--ordered group of definitional statements or of the corresponding Level members; typically either the group constituting a "semantic path" or the complete group of 12 Level members in the "semantic map."

Directionality--characteristic of an item, sometimes called positive or negative, determining agreement with the item as indicating favorableness or unfavorableness toward the attitude object.

Element--one of two or more ways in which a facet may be expressed; in the present system, all joint facets are dichotomous, expressed in one.

Facet--one of several semantic units distinguishable in the verbal expression of an attitude; in the present system, five dichotomous facets are noted within the joint struction.

Facet profile--see "struction profile."

Interest group--any group that, on the basis of one or more shared attitudes, makes certain claims upon other groups in the society for the establishment,

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<sup>1</sup>Credit is given to Maierle (1969) for most of the work in developing this glossary.

maintenance, or enhancement of forms of behavior that are implied by the shared attitudes. Fundamentally, interest groups are the representation of homogeneous interests seeking influence. In the present study they are functionally somewhat equivalent to "occupational groups."

Joint struction--see also "struction," "lateral struction"--"operationally defined as the ordered sets of . . . five facets from low to high across all five facets simultaneously" (Jordan, 1968a, p. 76); that part of the semantic structure of attitude items which can be determined independently of specific response situations.

Lateral struction--see also "struction," "joint struction"--that part of the semantic structure of attitude items which is directly dependent on specification of situation and object; a more precise term than "content."

Level--degree of attitude strength specified by the number of strong and weak facets in the member(s) of that Level; in the present system, six ordered Levels are identified: Level 1 is characterized by the unique member having five weak facets; Level 2, by members having four weak and one strong facet . . . Level 6, by the unique member having five strong facets.

Level member--one of one or more permutation(s) of strong and weak facets which are common to a given Level; in the present system, 12 Level members have been identified: three on Level 2, four on Level 3; two on Level 4, and one each on Levels 1, 5, and 6.

Map--see "semantic map."

Member--see "Level member."

Path--see "semantic path."

Profile--see "struction profile."

Reversal--change in a specified order of Levels or of correlations, involving only the two indicated Levels or correlations.

Semantic--pertaining to or arising from the varying meanings, grammatical forms, or stylistic emphasis of words, phrases, or clauses.

Semantic map--two dimensional representation of hypothesized relationships among six Levels and among 12 Level members.

- Semantic path--ordered set of Level members, typically six, such that each member has one more strong facet than the immediately preceding member and one less strong facet than the immediately following member.
- Semantic possibility analysis--linguistic discussion of the implications of the five dichotomous joint facets identified in the present system; of 32 combinations, only 12 are considered logically consistent.
- Simplex--specific form of (correlation) matrix, diagonally dominated and decreasing in magnitude away from the main diagonal; see Table 8 for comparison of equally spaced and unequally spaced diagonals.
- Simplex approximation--matrix which approaches more or less perfectly the simplex form; existing tests (Kaiser, 1962; Mukherjee, 1966) reflect both ordering of individual entries and sizes of differences between entries and between diagonals.
- Strong(er)--opposite of weak(er)--term functionally assigned to one of two elements, to a facet expressed by its strong element, or to a Level member characterized by more strong facets than another Level member; the strong-weak continuum is presently examined as unidimensional.
- Struction--see also "joint struction," "lateral struction"--semantic pattern identifiable in any attitude item, or the system of such identifications.
- Struction profile--specification, typically indicated by small letters and numerical subscripts, of the combination(s) of weak and strong elements or facets in a Level member or a set of Level members; or of combinations of lateral elements or facets.
- Transposition--change in a specified order of Levels or correlations involving a change in position of one Level or correlation and the corresponding one-place shift in the position of following or preceding Levels or correlations.
- Weak--opposite of "strong" (see "strong").



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