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#### ABSTRACT

## ATTITUDES OF TEXAS MEXICAN-AMERICANS TOWARD MENTAL RETARDATION: A GUTTMAN FACET ANALYSIS

Вy

Kenneth Noah Morin

## Statement of Problem

One major aim of this study was to investigate the predominant value orientations and attitudes held by four Mexican-American groups toward the mentally retarded. These included Special Education and Rehabilitation workers, Parents of the Mentally Retarded, Kegular School Teachers, and Parents of the Nonretarded. Another purpose was to assess the predictive validity of hypothesized determinants of attitudes, including demographic, socio-psychological, contactual, and knowledge factors. Although these substantive aims are important, credibility of the results depends on the adequacy of the measurement base upon which the results stand. In order to research the problems which have been leveled at attitudinal research in the past, Jordon (1968) has applied and extended the conceptual facet analysis scheme set forth by Guttman.



#### Instrumentation

A research instrument based on facet analysis was developed by Jordan and his students called the Attitude Behavior Scale - Mental Retardation (ABS-MR). This scale consisted of six levels, each corresponding to a certain level of the hypothesized attitude universe. Following the criteria for scale construction set forth by Magnuson (1966, p. 207) those items correlating highest with the total score for each level but having low correlations with each other were included in the final scale.

Included with the scale were those items that tapped the predictor variables of the study which Jordan (1968) has labeled <u>determinants</u> of attitudes (demographic, sociopsychological, contactual, and knowledge).

A pilot study, using the "known group" approach, was conducted to test the predictive ability of the instrument. Except for a few anomalies, the instrument did discriminate between levels as well as being a sound criterion on which to base predictions.

## Design and Analysis Procedures

Using the "known group" method, the present research sampled four groups selected from three Southwest Texas border cities. Each sample contained 50 subjects except the parents of the nonretarded group which had 82 subjects. The proportion of males to females was unequal, there being more females than males. Random selection of subjects was difficult, however, an attempt was made to select randomly in several ways: (a) selecting subjects from several border areas instead of from just one; (b) sampling different sections of the community in the case of the parents of the mentally retarded and parents of the nonretarded; and (c) sampling different schools and retardation facilities in the communities in the case of the special education and rehabilitation worker, and regular school teacher groups. The three cities contained a high proportion of Mexican-American persons, 85% of some areas being populated by persons with Spanish surnames.

The four determinants of attitudes were represented by 29 independent variables which were intercorrelated with content and intensity scores of the criterion (ABS-MR) across each level (including total scores). This facilitated testing fourteen hypotheses using simple correlations, multiple correlations, one- and two-way analysis of variance statistical techniques, and the  $\underline{Q}^2$  statistic.

#### Results

The results of this study indicate values, knowledge, contact, and certain demographic variables were effective predictors of attitudes toward the mentally retarded.

Strong support was given to the use of facet analysis in scale construction when the four simplex matrices formed ..... 1 3111 <u>;;;;;</u> grese: ievel: the pr 

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a Guttman simplex as predicted. This finding also supports the multidimensional quality of attitudes.

Recommendations were made to: (a) incorporate the present study into a larger cross-cultural study and (b) develop an attitude change study using the ABS-MR as the criterion. Suggestions were made to improve cross-cultural sample selection.



# ATTITUDES OF TEXAS MEXICAN-AMERICANS TOWARD MENTAL RETARDATION: A GUTTMAN FACET ANALYSIS

Еy

Kenneth Noah Morin

## 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



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## PREFACE

This study is one in a series, jointly designed by several investigators, as an example of the "project" approach to graduate research. A common use of instrumentation, theoretical material, as well as technical and analysis procedures were both necessary and desirable.

The authors, therefore, collaborated in many aspects although the data were different in each study (Erb, 1969; Gottlieb, 1969; Hamersma, 1969; Harrelson, 1969; Maierle, 1969) as well as certain design, procedural, and analysis methods. The interpretations of the data in each study are those of the author. • :1 ::. ontes Trata Ìnsi ; 2 전 41 :: L:: 403 D: iga: 11 (L.); 11111 à.

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I am grateful to Dr. Gregory Miller, Dr. Robert Craig, and Dr. Alfred Dietze for serving as members of my doctoral committee.

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The friendship of Lawrence Harrelson, a fellow doctoral student, was important to me while I was a student at Michigan State University. Larry's writing skill served as a model and exemplified what clarity in writing means.

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## DEDICATION

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## CHAPTER I

#### INTRODUCTION

In a modern society such as the United States considerable value has been placed on the development and utilization of human resources. Not only must the intellectually capable be valued, but those persons whose mental capacity is limited must also be valued and perceived as potential contributors. Commitment to such a proposition is reflected in increased efforts to find ways of dealing with mental retardation.

The increased awareness of mental retardation in the United States and around the world can be attributed to such factors as: expanding population, advances in medical science--which has saved the lives of many who would otherwise have died, advances in the behavioral sciences, and the increasing complexity of modern technological societies. Just as the physically disabled person was comparatively handicapped in primitive societies, so too the mentally retarded <u>can be</u> handicapped in a society relying on "brain power rather than brawn."

Wright (1960), Hutt and Gibby (1965) and Gunzburg (1958) have shown that a high relationship exists between the type of adjustment made by the mentally retarded and

the reactions of society to the mentally retarded. Not only will the reactions of society directly influence the mentally retarded but the attitudes of a society toward the mentally retarded will indirectly influence the types of programs made available for the treatment, care, and rehabilitation of the retarded.

The preceding discussion imples that through early and adequate rehabilitation and special education services the mentally retarded can develop their remaining potential for the benefit of themselves and society. The extent of commitment of a society to the full education of its own "outsiders" (the mentally retarded, physically handicapped and minority groups) is an index of the fundamental commitment of that society to democratization and liberalization of education generally, and it is postulated that such commitment is not compatible with the belief that the individual is subservient to the State. Thus the type of commitment evident in special education and rehabilitation programs may be indicative of the direction in which general education needs to develop.

Greenbaum and Wang (1965, p. 257) point out that "the likelihood of such a societal commitment 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 mentally retardate at significant times in his life." The groups of the present study are congruent with the

preceding groups alluded to by Greenbaum and Wang: (a) parents of the retarded, (b) those who work with the retarded, (c) regular school teachers, and (d) parents of the non-retarded.

✤ The problem of mental retardation is world wide and is especially prevalent in the underdeveloped countries of the world. Because of advances in communication and transportation no nation can remain truly insular. A world community is in the making and this implies that each nation within the community should have a responsibility for its neighbor. The more developed nations of the world have the responsibility to help the more underdeveloped countries to help themselves.

• One problem that can be attacked is mental deficiency. Before the educational or social planner can develop programs and techniques to cope with the problem of mental retardation within a country, that particular country should be thoroughly understood. One way to understand how a country feels about its mentally retarded is through attitudinal research..

One methodological approach to attitudinal research is being developed by Louis Guttman of Israel. This approach may prove to be the most consistently exact and systematic approach to attitudinal research yet developed. Jordan (1968) in a comprehensive review of the literature on attitudinal studies found that many of the studies were inconclusive or contradictory.

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Guttman offers an approach that may reverse the present inconclusive and contradictory attitudinal research reviewed by Jordan. Guttman reanalyzed the work of Bastide and van den Berghe (1957) and described four levels of an attitude universe. The four levels posited by Guttman were: (a) Stereotypic, (b) Normative, (c) Hypothetical Interaction, and (d) Personal Interaction. From this viewpoint attitudes are not single entities, but are made up of different gradations: from the purely intellectual (covert) to the behavioral (overt). Being aware of these levels and the structure and content of each level allows the researcher a greater degree of control. By dividing the attitude universe into sub-universes the researcher should have more control over which levels are being tapped, which will in turn produce more consistent, stable and replicable findings.

Jordan (1968) has also concluded from his review of attitudinal research 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 factors such as amount, nature, perceived voluntariness, and enjoyment of the contact, and (d) the knowledge factor, i.e., the amount of factual knowledge one has about the attitude object.

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Jordan's conclusions tend to be anticipated by Mendelsohn (1953-54) when he cites several hypotheses bearing on the problem of studying mental deficiency.

#### Hypothesis I.

There is a substantive relationship between knowledge about mental deficiency, attitudes toward it and such social factors as sex, age, education, experience with the mentally deficient, and socioeconomic status.

#### Hypothesis II.

Attitudes toward mental deficiency and the mentally deficient will reflect patterns of attitudes relating to other social deviants found in the American cultural milieu.

#### Hypothesis III.

There is a substantial relationship between knowledge about mental deficiency, attitudes toward it, and the amount of participation that occurs in community programs dealing with the problem.

#### Hypothesis IV.

Support of, participation in, and evaluation of programs dealing with the problems of mental deficiency are functions of awareness of such programs, attitudes toward mental deficiency, and the type of experience with mental deficiency that individuals have (Mendelsohn 1953-54, p. 207-209).

Through a more systematic delineation of the independent or predictor variables and an increased specifi-

city of the levels of an attitude, the social scientist doing attitudinal research should have more confidence in his data and in his ability to make predictions.

The present study is part of an ongoing crosscultural study being conducted under the direction of Jordan<sup>1</sup> and a number of his doctoral students in an

<sup>&</sup>lt;sup>1</sup>John E. Jordan, College of Education, Michigan State University, East Lansing, Michigan 48823.

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attempt to research attitudes toward education and the rehabilitation and social acceptance of the mentally retarded in the United States, Brazil, Colombia, British Honduras, Germany, Israel, Yugoslavia, and possibly Poland and India. The objective of the ongoing crosscultural project and the present study has two major aspects: (a) a substantive aim and (b) a methodological approach.

#### Substantive Aim

The aim is to examine the relationships of certain variables to mental retardation and to assess the attitudes of designated groups toward mental retardation. Different components or facets/factors of attitudes toward retardation will be analyzed.

More specifically the substantive aim of the present project was:

1. To determine predominant value orientations and attitudes toward education, rehabilitation and social acceptance of the mentally retarded among the following Mexican-American interest groups:

- (a) Regular school teachers
- (b) Special education and rehabilitation workers
- (c) Parents of mentally retarded
- (d) Parents of the nonretarded

2. To assess the predictive validity of the following hypothesized determinants of attitudes toward mental retardation:

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- (a) Valuational
- (b) Contactal
- (c) Demographic
- (d) Knowledge

3. To test the hypothesis of an invariate structuring of attitudes across groups, i.e., that the Guttman simplex (Guttman, 1959, 1960) will be maintained across groups.

#### Methodological Approach

Unless and/or until the measurement problem of assessing attitudes is at least partially solved there can be no rational attack on the substantive problem of assessing attitudes toward the mentally retarded or any other attitude object.

The purpose of this study was to investigate the predominant value orientations and attitudes held by four Mexican-American interest groups toward the mentally retarded as well as to assess the predictive validity of the hypothesized determinants of attitudes (demographic, socio-psychological, contactual, and knowledge). The instrument used to measure attitudes toward the mentally retarded was the <u>Attitude Behavior Scale--Mental Retar-dation (ABS-MR)</u>--Jordan (1968), which measures six levels of a person's interaction with the attitude object (the mentally retarded). The scale and its development will be discussed under the section dealing with instrumentation.

Å iealing the reta Fogel, Manual, 300; 05 and atti tional a i ilegni. Sexioariata carr the Terto ÷...; ಕ್ಷ ಕಾಂತ್ರ or sy the illenstar. Standing to the ch ..... Se Secera à: A: 118 COLS ite for o in evaluat ien as te Sec. 3 A review of the literature indicated no research dealing with the attitudes of Mexican-Americans toward the retarded. Research concerning the Mexican-American (Fogel, 1967; Grebler, 1967; Heller, 1966; Madsen, 1964; Manual, 1934; Mittelbach, 1967; Moore, 1966; Moustafa, 1968; Opler, 1959; Rubel, 1966) described general values and attitudes held by Mexican-Americans and those educational and economic conditions that tend to perpetuate a discrimination that fosters many problems faced by Mexican-Americans, including mental retardation. Such data cannot, however, be generalized in terms of describing or predicting attitudes of Mexican-Americans toward the mentally retarded.

Another rationale for the present study, and for all cross-cultural and sub-cultural research, is that by studying "other cultures" some light may be shed on our understanding of groups in our own country. This understanding could also give direction to programs leading to the changing of attitudes.

The inclusion of the Mexican-American sample in the comprehensive study should not only assist in assessing the generalizability of the predictor variables, and the utility and fruitfulness of the facet approach to attitude construction and analysis, but should also provide data for cross-national comparisons which may be useful in evaluating research outcomes in the United States as well as being of intrinsic value to the particular geographic area.

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## CHAPTER II

# REVIEW OF RESEARCH ON ATTITUDES TOWARD MENTAL RETARDATION

More than a dozen years ago Mendelsohn (1954) 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 (Harrelson, 1969) from 1954 through 1967 reveals that a number of studies have since emerged in this area; not surprisingly, most have appeared in the <u>American</u> <u>Journal of Mental Deficiency</u>. 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.

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). These authors administered a 21 scale semantic differential measuring conceptions of six terms describing mental retardation ("idiot," "imbecile," "moron," and

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Nine of the 21 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 12 scales were assembled in an attempt to assess attitudes toward the retardate's social stimulus value, his physical health, and his psychological properties or attributes.

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

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It was found that the general structure of conceptions of the mentally retarded was the same for all groups, i.e., the scores covaried. This conception, however, was mainly a <u>negative</u> 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 attitude and 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), and (c) there was a non-significant trend for older subjects to hold more positive images of the mentally 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

wiethe. of the teacher feasio 12mm tot or. 146-10-acle ta 212e." Coxette: 9975 S.D. 11 Jr. Rince, ಸಿ ಕ್ಷಾ : iesei c 3500 - C. 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 one wonders 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 the above study, however, appear to fall at the Stereotypic level in Guttman's (1959) paradigm and do not tap other levels of Guttman's attitude universe (see Table 5 in Chapter III).

None of the other studies encountered attempted to compare as many different groups as comprehensively as did Greenbaum and Wang (1965). Perhaps the most reasonable approach to organizing the remaining studies is according to the topics being studied.

#### 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

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In a 1964 study, Guthrie, Butler, Gorlow and White, again using institutionalized female retardates, found that 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, age, IQ, and length of institutionalization. Similarly, McAfee and Cleland (1955) found no difference between the self-ideal 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 nonsignificant trend for achievers to have a higher degree of perceived parental acceptance and intrinsic as opposed to extrinsic self valuation.

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

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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 specially 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 mentally retarded children prevail revealed numerous unreciprocated choices, a low number of mutual pairs, and many isolates.

Miller (1956) had earlier used the sociometric procedure to compare social status and socioempathic abilities (awareness of one's own and others' status) among

mentall offlåre retarda weile t the sug Scoloer the sup . Wid in j. ship be of that Jank ( Sample. taies t in the ana1981 evaluat arreara ણ વર્શ્વયુ C larded ( their s stectal 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. Socioempathic ability followed the expected pattern with the superior children showing more ability than normals who in turn showed more ability than the retardates.

#### Peer and Community Attitudes

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) reported 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 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) in a separate study found that normal children in classes adjacent to a class for mentally retarded did not identify photographs of retardates with their special class status in an elementary school. An attempt was then made to ascertain perceptions of the special class more directly, and it was found that only

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Jaffe (1966) demonstrated the importance of stereotypes which become attached to the concept of mental retardation. In a well designed study with 240 high school seniors, 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 check list, (d) the Social Distance Scale, (e) a vocabulary test, and (f) demographic data (including amount of contact with the retarded) were also used. 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 socioeconomic 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 three groups 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 other groups. 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

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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.

Polansky (1961) used the same scale (Mental Deficiency Misconception Scale-MDMS) and related responses of psychiatric technicians in a state hospital for the

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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 erroneously believed to a greater extent than laymen that "the feebleminded 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.

Anders and Dayan (1967) also 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.

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)

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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 or TMR. (3) Respondents in a religious group generally calling for orthodoxy of beliefs 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 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

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regardless of whether the attitudes were favorable or unfavorable--a finding at variance with the 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 denominational groups and the rural-urban areas studied 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 has attempted to relate general value orientation to attitudes toward the mentally retarded.

# Teacher Attitudes

Four 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% response rate.

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Semmel (1959) in what is possibly the only substantive study available in this area, 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 16 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. Τt is also not clear what facets or levels of attitudes were being measured. Nevertheless, Semmel's research represents the lone exploratory attempt found in this area and points the way for further efforts.

## 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

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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 overprotection and inability to make realistic demands on the child were the most commonly expressed neurotic attitudes.

Schonell and Watts (1956) interviewed 50 parents of retarded children in Brisbane, Australia. Most of the subjects were mothers and reported favorable attitudes on the part of the father, 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

attit the f porte iatio estab stuży attity retard serera ani ab 3015 5 ile n 012810 1 1 1 Coursed Vengtei ty a <sub>por</sub> Seened 4 Nere 110 10000011 attitudes and treatment of the child by people outside the family circle. Schonell and Rorke (1960) also reported 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 (1963), 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.
spon on a agree Was a and t denoy retar ac we] toward releas 1201 <u>1</u> XCO We an inst or unii to have Cre-11.8 11 WEB : entiate. 2.6 ejioatie reen ar e Was found 123868 ... tioust 55 Levine (1966) had interviewers rate 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 that child was a female. The children were all trainable retardates and the differences were attributed to the fathers' tendency to devalue the male retardate more than the female retardate.

Mercer (1966) used information from hospital records as well as interviews to relate indirectly the attitudes toward institutionalization in families of 76 retardates released from and 76 matched retardates still hospitalized in an institution. She found that the retardates who were reaccepted by their families (after release from an institution) were more frequently diagnosed as familial or undifferentiated and showed a non-significant tendency to have fewer physical handicaps. While the patterns of pre-institutional crises were similar for the two groups, it was the additional physical care problem which differentiated the groups.

Meyerowitz (1967) interviewed parents of 180 young educable retardates who had been randomly assigned to regular and special classes upon entering school. It was found that the parents of children placed in special classes manifested greater awareness of retardation even though 55% of this group were judged unaware of their

a511 Whos two Cett in t leas thei place famil place thing renati aut.co; Pealit 014881 Jercel Vocati, 1 Views i inoludi 101 att; Wene in: child's retardation and more than 25% of these parents whose children had received special class training for two years persisted in responding that the child was better than other children in academic skills! 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.

Olshansky and Schonfield (1965) interviewed 105 families (primarily parents) of graduates of special classes for the mentally retarded and found that onethird said they thought the graduate was normal and the remaining 30% refused to classify him either way. 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-students 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.

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

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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% of the parents contacted completed the form and the author concluded that parental attitudes were not uniform. While the parents sought professional help there was a question of its acceptance.

Kenney (1967) in a well designed study, employed measures of authoritarianism and ego development (defined

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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.

Zuk (1959) has demonstrated the importance of the religious factor in parental acceptance of the retarded child. Zuk divided 76 parents 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 mothers'

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Peck and Stephens (1960) used a variety of observational and rating techniques on a sample of 10 retarded children and their parents in an attempt to assess the effect of parental attitudes upon their children. Their findings indicated 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 was not significant.

Dingman, Eyman and Windle (1963) gave the Parental Attitude Research Instrument (PARI) to several 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)

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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. The 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 Harrelson (1969) has found contradictory findings in studies using this instrument in the field of psychopathology, i.e., Horowitz and Lovell (1960) and Zuckerman, Oltena and Monashkin (1958).

Finally, in the last study to be cited in this area, 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

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#### 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 general negative attitude of employers.

Cohen (1963) related the scores of 177 employers (in the immediate area of a training and research center on retardation) on a scale designed to measure attitudes toward hiring the retarded, 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

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Hartlage (1965) reported findings which question those of Cohen's--no relationship between the educational level of 120 employers (out of 283 contacted) and their receptivity toward hiring the retarded. Hartlage did find, however, 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 15 item questionnaire.

Phelps (1965) cited the results of a study which completely contradicts Cohen's findings while substantially agreeing with those of Hartlage. 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 also found between the types of service

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#### Attitude Change

Only a few studies have 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, 1966) 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 most "attitudinal shift" even though this group was not subjected to the independent variable. It may be said, in brief, that (a) attitudes and information seemed 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 of 21 mothers of retarded children two years after group counseling. Scores on a sentence completion form were compared at that time with precounseling scores. The parents became concerned less with

their tarie to ac Cave reall conte trolle 16 jar involv sessio lardat istice siniri Storb 9 rection one of --3aup1, Cational ianerto all Seve ential u il in a entirely result of 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 affected 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.

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#### Summary

It is of interest to note that none of the studies reviewed have employed an attitude scale constructed on the basis of the structural theory proposed by Guttman (1959). Thus, it is entirely unclear what attitudinal levels or sub-universes 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 Stereotypic level in Guttman's paradigm (see Tables 1-5 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 also 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. 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 which attempted to relate findings cross-culturally or cross-nationally. In fact, only three studies (Laing &

<sup>&</sup>lt;sup>1</sup>See Chapter 3 for an extensive definition of the term "facet".

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Chazan, 1966; Schonnel & Watts, 1956; Schonnel & Rorke, . 1960) were found in the American literature which were conducted in countries other than the United States.

Although no clear consensus exists in the review of literature, it does indicate that numerous variables do 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 control systematically 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 control systematically these variables across various groups and cultures if fruitful and generalizable findings are to ensue.

The research on attitudes toward mental retardation using a facet theory derived instrument (Jordan, 1967 & 1969; Jordan, Vurdelja, and Prazic, 1969) is reviewed in Chapter IV since it is also related directly to instrumentation procedures.

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## CHAPTER III

## INSTRUMENTATION AND VARIABLES

# ABS-MR Scale (Criterion)

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

In a reanalysis of research by Bastide and van den Berghe (1957), Guttman (1959) proposed that in respect to intergroup behavior there are three necessary facets Which may be combined according to definite procedures to determine the element composition of eight important

sui:pre: 7451 -a, ta<sub>2</sub> :: . Serte te gr Clica: 007.51 ..e., oan be 000000 their : . . <sup>دوري</sup> a  sub-universes or levels of the attitude universe. Table 1 presents these facets.

TABLE 1.--Basic facets used to determine component structure of an attitude universe.

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

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 x B x C, yielding a 2 x 2 x 2 combination of elements or eight semantic profiles in all, i.e., (1)  $a_1 b_1 c_1$ , (2)  $a_1 b_1 c_2$ , . . . (8)  $a_2 b_2 c_2$ . It can be seen that profiles 1 and 2 have two elements in common ( $a_1 b_1$ ) and one different ( $c_1$  and  $c_2$ ), whereas profiles 1 and 8 have no elements in common.

Using the Bastide and van den Berghe (1957) research, Guttman was able to facetize the semantic structure of their four attitude levels as shown in Table 2.

The model in Table 2 depicts attitudinal subuniverses from a sterotypic level to personal interaction. A common meaning for the orderings was suggested by Guttman, i.e.,

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	Subuniverse	Profile
1	Stereotype	a <sub>l</sub> b <sub>l</sub> c <sub>l</sub>
2	Norm	a <sub>l bl c</sub> 2
3	Hypothetical Interaction	a <sub>l</sub> b <sub>2</sub> c <sub>2</sub>
4	Personal Interaction	a <sub>2</sub> b <sub>2</sub> c <sub>2</sub>

TABLE 2.--Facet profiles of attitude subuniverses.

they showed in each case a progression from a <u>weak</u> to a <u>strong</u> form of benavior of the subject toward the attitude object. That is, the more subscript "2" elements a set contains, the greater the strength of the attitude.

Facet analysis of the semantic structure provides a social-psychological-theoretical basis for predicting the structure of the empirical intercorrelation matrix of the above four 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 <u>pattern</u> or structure for the <u>relative</u> sizes of the statistical coefficients from purely semantic considerations (Guttman, 1959, p. 324).

This prediction was stated by Guttman as the Contiguity Hypothesis which states: Subuniverses closer to each other in the semantic scale of their definitions will also be closer statistically. In other words, the intercorrelations should reveal a simplex ordering so that the maximum predictability of each level is attainable

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from its immediate neighbor or neighbors alone. This predicted relationship has been obtained for the ABS-MR scale (see Table 6) as well as by Foa (1958, 1963) and Guttman (1961).

Jordan (1968) has suggested that the facets proposed by Guttman need to be expanded. A more inclusive set of facets and their elements are stated in Table 3.

Tables 4 and 5 specify the semantic structure of the facets differentiating the six attitude subuniverses, and, finally, Figure 1 depicts the relationships between Conjoint and Disjoint struction or between scale level and item content.

The six level structure or Conjoint dimension was determined by Tables 3-5 whereas the item content or Disjoint dimension was structured by Figure 1.

# ABS-MR Test Development Data<sup>1</sup>

From a "theory of content" dictated by Figure 1, generalized into Figure 2, and structured into six levels or subscales by Table 3, 20 items were constructed for each of the six levels for a total of 120 items. A measure of intensity was also constructed for each of the items; the attitude scale thus comprised 240 items. Sixty additional items of demographic, contact and related data, value orientation, and knowledge about mental retardation

<sup>&</sup>lt;sup>1</sup>Much of the material in this section is taken from Jordan, 1969; with permission.

TABLE 3Basic	facets used to	o determine conjoint	l struction of an	attitude universe.
(A) Referent	(B) Referent Behavior	(C) Actor	(D) Actor's Intergroup Behavior	(E) Domain of Actor's Behavior
al others	bl belief	cl others	d <sub>l</sub> comparison	e <sub>1</sub> symbolic
a <sub>2</sub> self	b2 action	c2 self	d <sub>2</sub> interaction	e <sub>2</sub> operational
lConjoint	struction is	operationally define	d as the ordered s	sets of the five
facets of Table	3 from low to	high across all fiv	e facets simultane	cously (Jordan,
1968). Not to	be confused wi	th conjoint measurem	ent (Zinnes, 1969,	p. 461).

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Type- Level	Struction Profile	Descriptive Conjoint Term
1	a <sub>l</sub> b <sub>l</sub> c <sub>l</sub> d <sub>l</sub> e <sub>l</sub>	Societal stereotype
2	$a_1 b_1 c_1 d_2 e_1$	Societal norm
3	a <sub>2</sub> b <sub>1</sub> c <sub>1</sub> d <sub>2</sub> e <sub>1</sub>	Personal moral evaluation
4	a <sub>2</sub> b <sub>1</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub>	Personal hypothetical action
5	$a_2 b_2 c_2 d_2 e_1$	Personal feeling
6	a <sub>2</sub> b <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>2</sub>	Personal action

TABLE 4.--Conjoint level, profile composition, and labels for six types of attitude struction.

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TABLE	jFive-facet si)	<pre>x-level system of attitude vertalization: leve statements for twelve permutations</pre>	ls, facet profiles, and definitional
Level	Facet Profile	Definitional Statements <sup>1</sup>	Descriptive Name <sup>2</sup>
-	$\frac{o \ b \ o \ c \ s}{a_1 \ b_1 \ c_1 \ d_1 \ e_1}$	Others believe others compare symbolically**	**Societal stereotype )group assigned group status)
2	1 b o c 0 b o c 1 s 1 s 1 s	<pre><u>1 believe othere compare symtelically</u> <u>Others believe cthere interact symbolically</u>**</pre>	fersonally-avigned group status **Cocietal norm
	obics	Uthers felleve <u>i s</u> umpare gymcollcally	Jroup-accipted percenal status
m	$\frac{1}{a_2 b_1 c_1 d_2 e_1}$	I telleve ctners Interact gun clically**	**Perional minal evaluation (peroeived values)
	1 b 1 c s	<u>I telleve I gompare gombollonlic</u>	Felf-concept (percenally- arrigned perronal status)
	0 b i 1 c	<u>Cthere believe I Interact gurtulleally</u>	troclaimed laws (group expectations)
	0 <b>2</b> 0 <b>1</b> 8	uthers <u>a</u> ct) <u>o</u> thers <u>a</u> ct <u>cym</u> kolleally	Jroup Identity (actual Froup feelings)
TT .	$\frac{1}{a_2 b_1 c_2 d_2 e_1}$	I believe I interact aymuuleally**	**!ertonal typothetical action
	o a o 1 p	( <u>O</u> thers <u>a</u> ct) <u>o</u> thers <u>interact</u> <u>operationally</u>	Actual group tenavior
Ś	. <u>1 a 1 1 s</u> a <sub>2</sub> t <sub>2</sub> c <sub>2</sub> d <sub>2</sub> e <sub>1</sub>	(I act) I Interact jumi olically**	**!ersonal feeling
9	$\frac{1}{a} \frac{1}{2} \frac{1}{b} \frac{1}{2} \frac{1}{c} \frac{1}{2} \frac{1}{c}$	( <u>I</u> act) <u>I</u> interact operationally**	**['ersonal action
	Words in parenthe	ses are part of redundant but consistent statem	ents.
()	Alternate names i	in parentheses indicate relationships of various	level members.
* *	Permutation used	in the AbS-MR scale. See Table 4.	





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John E. Jordan College of Education Michigan State Univ. June 1, 1967

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#### Details of Administration

Following a general set of directions and an example to induce "test taking behavior" the 300 items were presented to the subjects in a booklet which contained the <u>six subscales in numerical order</u>; followed by the demographic, contact and related data, value orientation data, and knowledge about mental retardation data. The directions for each of the six subscales are contained in Appendix B.

# Subjects

The ABS-MR was administered to three groups in the test development study: (a) 88 MSU graduate students (46 female, 42 male) in a course on medical information for rehabilitation counselors and special education teachers;

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students who were 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 constituting all MSU students at 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, cultural orientation, as well as knowledge and experience regarding retardation.

### Facet Theory Scale Construction

Guttman's facet theory implies a different approach to scale construction than the usual "item analysis, reliability, and validity" approach. The mapping sentences of Figures 1 and 2 impose a semantic meaning on the content of the items, hopefully an "ordered" one, and the paradigms of Tables 3 and 4 specifically impose a postulated ordered meaning system for the relationship between the six scale levels.

The five/two-element/facets of Table 3 yield 32 Possible profiles.<sup>1</sup> As shown in Table 4, six of these Profiles were chosen as psychologically relevant, potentially capable of instrumentation, and possessing a specific relationship between themselves--a simplex one.

<sup>&</sup>lt;sup>1</sup>See Maierle (1969) for a detailed analysis of the 32 possible profiles.

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These six profiles of Table 4 are ordered such that 1<2<3<4<5<6 or Societal Sterotype<Societal Norm<Personal Moral Evaluation<Personal Hypothetical Action<Personal Feeling<Personal Action. Guttman (1959, p. 320) states that "according to scale theory, ordering the profiles (our six subscales) also implies a formal ordering of the categories within each facet." The ordering 1<2<3<4<5<6 implies formally the following simultaneous orderings:  $a_1<a_2, b_1<b_2, \ldots, x_1<x_2$ .

Guttman suggests a common semantic meaning: a progression from a weak to a strong form of behavior of the subject vis-a-vis the attitude object--in our case the mentally retarded. Examination of Table 3 indicates the rationale of this ordering system.

> Facet A--the referent "other" is weaker than "self" in being less personal. Facet B--"belief" is weaker than "action" in being "passive" rather than "active." Facet C--referring to the behavior of one's "self" rather than that of "others" is stronger in that it implies personal involvement. Facet D--"comparative" behavior is weaker than "interactive" behavior since it does not imply social contact; a comparison is more passive than interaction. Facet E--"symbolic" behavior is weaker than "operational" in that it does not imply acting out behavior.

The above analysis as developed by Jordan (1969), is restricted to the ordering implied in the five facets of Table 3--what Guttman is now calling <u>Conjoint Struction</u>. However, an additional question can be asked--Is it possible to establish an ordering principle so that the item

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content itself can be "ordered" with some explicit <u>a priori</u> semantic meaning; i.e., rather than attempting to <u>a postori</u> evolve the meaning by some procedure such as factor analysis?

Rokeach (1968) has independently developed and made explicit the idea implied in the Jordan-Guttman paradigm of Figure 2--the facet "y" of "condition" in Figure 2 is equivalent to Rokeach's "situation;" one could also argue that the entire Disjoint dimension of Figure 2 (facets F-J) is equivalent to Rokeach's "object specificity."

The rationale used in the selection of the item content of the ABS-MR attempted to "order" the item content via three principles:

- Ego involvement: cognitive-affective. Is the "attitude object in situation <u>y</u>" dealt with cognitively or affectively?
- 2. Social distance: distant-close. Is the "attitude object in situation  $\underline{y}$ " distant or close to one's self?
- 3. Relevance: low-high. Is situation <u>y</u> relevant and/or important to the subject?

Consistent with the above discussion of the weakstrong principle implied in Table 3; a positive or stronger attitude would be expressed by a subject who "agreed with or chose" items that dealt with the mentally retarded in "highly important situations that involved the self in close interpersonal action." . <u>....</u> tar. lar Cue: Taji 1006 sity al terr Frese: :02 es 、 se juže elliene 07 "DI

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#### ABS-MR Intensity

Guttman and Foa (1951) have emphasized the importance of intensity measures in attitude scales, particularly with regard to the contact variable.

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 intensity of attitudes may be ascertained by asking a question about intensity immediately following a content question.

One form used for an intensity question is simply: "How strongly do you feel about this?" with answer categories of "Very strongly," "Fairly strongly," and "Not so strongly." Repeating such a question after each content question yields a series of intensity answers. 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 intensity of attitudes on the ABS-MR. On levels 1-5, the three alternatives "not sure," "fairly sure," and "sure" are presented to the question "How sure are you of this answer?" for each item in these scales. A variation of this procedure was used on level 6 to ascertain whether a reported experience with the retarded was "unpleasant," "in between," or "pleasant."

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#### Facet Theory Data Analysis

Two types of data analysis are indicated: (a) an analysis of the facets across the six levels, i.e., was the simplex obtained; and (b) an analysis of the scalar nature of the content within each of the six sub-scales. The first analysis deals with the Conjoint dimension and the second with the Disjoint dimension (Jordan, 1968). However, because the MSA-I computer program has not been fully developed, Disjoint struction (the content of the items) will not be discussed in this study.

### Conjoint Analysis

The results from the SER graduate students (Table 6) form an approximate <u>simplex</u> as predicted from Table 4. Contiguity theory also states that the correlations between the six levels should decrease in relation to the number of steps that two levels are removed from each other. Table 6 indicates this to be as predicted: the correlations were in the predicted order from the SER sample; the ED 200 sample had two exceptions; and the Belize sample had one exception.

A recent statistic called  $\underline{Q}^2$  has been developed by Kaiser (1962) for testing simplex approximations. Research to date using Guttman facet theory have relied on visual inspection to confirm or disconfirm hypotheses dealing with the simplex. In order to understand the following discussion, reference should be made to

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Descriptive Term	<u>ED 200(33 sample<sup>3</sup> 1 2 3 4 5 6</u>	<u>FelizeF23 sample<sup>4</sup> 1 2 3 4 5</u>	$5 \qquad \frac{28888 \text{ canple}^5}{1 - 2 - 3 - 48} \ 5 \qquad 6$
Societal Sterotype Societal Norm Personal Moral Evaluation Personal Hypothet. Action Personal Feeling Personal Action	$\begin{array}{c c} 0 \text{ riginal } \mathbb{Q}^2 = \cdot \mathbb{Q}_0 \\ 1 & - \\ 2 & 44 & - \\ 2 & 0 & 24 & - \\ 3 & 0 & 24 & - \\ 4 & 1 & 2 & 26 & - \\ 2 & 1 & 1 & 36 & - \\ 5 & 1 & 2 & 1 & 36 & - \\ 0 & 0 & 0 & 1 & 22 & - \\ \end{array}$	1     1 <td><math display="block">\begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Examine each matrix for - "order" of levels	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1         1	$\begin{array}{c c} 1 & \frac{1}{1} + 1$

TABLE 6.--Analysis of simplex correlations<sup>1</sup> of the ABS-MR test development data for the ED 200, Belize and

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ABLE 7 <sup>2</sup> Analysis of theoretical correlations <sup>1</sup> of differences te	"nerfectly ordered" metrices with equal and unequal	periocery diacted matrices with equal and unequal tween correlations.
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Descriptive Term	6	nequa	L Dif	fere	ncen		ŭ	qual	Diff	erenc	Ges		ш	l lauț	<b>liff</b> e	rence	တ္	
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Matrices are "ordered"	00220001 001 ⊭M 22 ⊨	eet 2 7 3 98 47 2 20 2 13	6 =	<del>860</del> mat 72	rix 7.2 53	l I	1 0 0 ≠ 0 0 211 0 0 − 0 0 0	0 400 0 400 0 0 0	2 =	- <u>294</u> 	rix 7.4		i) 테이션 cillst 오아 토이 이 다	00000000000000000000000000000000000000	2 = . 60 4:0	<u>968</u> mati 50	rix 7.6 60	
Levels	Т	∾	m	-=	er.	Q		2	m	4	5	9		(1	m	7	5	9

l<sub>Ř</sub>eversals of order are underlined.

<sup>2</sup>Taken from Jordan, 1969.

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Chapter IV under  $\underline{Q}^2$  Analysis. The  $\underline{Q}^2$  statistic, briefly explained, is able to: (a) reorder the level members of each matrix so as to generate the best empirically possible simplex approximation; (b) calculate  $\underline{Q}^2$  for the hypothesized ordering and for the empirically best ordering of each matrix; and (c) based on "a" and "b," determine whether or not the best order for the empirical data of the simplex was the order set forth in the hypothesis.

The  $\underline{Q}^2$  values for the ED 200 sample (Table 6, matrix 6.1 & 6.2) were the same (.946) for the hypothesized order and the best order; i.e., the best order for the empirical data of the simplex was the order set forth in the six-level theory of Table 4.

The  $\underline{Q}^2$  values for the Belize sample (Table 6, matrix 6.5 & 6.6) were: (a) hypothesized order: .858; and (b) best order: .859. Examination of Table 6 indicates levels 5 and 6 are reversed in the "best" order of the Belize data but that the increase in the  $\underline{Q}^2$  value was minimal.

The  $\underline{Q}^2$  values for the SER sample (Table 6, matrix 6.9 & 6.10) were the same (.974) for the hypothesized and the best order; as it was for the ED 200 sample.

While there presently is no significance test available for the values of the  $\underline{Q}^2$  test, examination of Tables 6 and 7 gives some cues to the relationships between the

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absolute value of  $\underline{Q}^2$  and: (a) the "ordering" within the simplex matrix, (b) the equal-or-unequal nature of the differences between the correlations, and (c) the absolute size of the correlations.

As indicated in Table 7 (matrix 7.4) the highest  $\underline{Q}^2$  value is for an <u>ordered</u> matrix containing both <u>equal-interval</u> and <u>largest</u> correlation values. Table 6 contains the  $\underline{\zeta}^2$  values for the three test development samples for the ABS-MR. The ED 200 sample contains four reversals (matrix 6.1) and the  $\underline{Q}^2$  is the same for the obtained simplex and a "best" one obtained by the  $\underline{Q}^2$  procedure (matrix 6.1 & 6.2). If the correlations in matrix 6.1 are changed "merely" enough to make the matrix an "ordered" one the  $\underline{Q}^2$  value of .946 in matrix 6.2 increases to .977 in matrix 6.3. While there is presently no test of the statistical significance of this increase of .031 it does indicate some relationship between "order" and the size of the  $\underline{Q}^2$  value. Table 6 contains similar analyses of the Belize and SER test development samples.

Table 6 also contains the  $\underline{Q}^2$  value for a matrix with six reversals of order for data of unequal intervals. In Hamersma's (1969) study "six-reversals" were accepted as the maximum possible for a 6 x 6 data matrix to contain and still be accepted as "approximating" a simplex. By the "six-reversal" criteria a  $\underline{Q}^2$  value of .60 would appear minimal and preferably a value of .70 for a 6 x 6 matrix to be acceptable as a simplex.

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These simplex results of Table 6 lend support to an hypothesis of a cross-cultural and invariate structure between the scale levels of the ABS-MR. The data also suggest that age and experience bring congruence between what one expects of others and one's self; i.e., the difference between levels 3 and 4 as opposed to that between levels 2 and 3 was much greater for the regular education students than for the graduate students. The latter are older and have had more experience than the former. Both, however, saw themselves as doing what was "right" more than they saw others doing so.

The difference between levels 3 and 4 as opposed to levels 2 and 3 was less in Belize although in the same direction. The entire simplex in Belize is more restricted and homogeneous; which is what is expected in underdeveloped societies since they are less differentiated. It should also be noted that level 3, the Personal Moral Evaluation level, was involved in many of the instances in which the simplex ordering was not maintained. Apparently the implications of level 3 are more subtle and difficult to differentiate. Level 3 (Table 5) also has more permutations or level members, and thus finer gradations of meaning, which may make it difficult for respondents to differentiate between the levels.

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#### Predictor Variables

#### Demographic Variables

The instrument labeled Personal Questionnaire: MR (Appendix B) was designed to operationalize several variables suggested by the review of the literature to be determinants of attitudes toward mentally retarded persons (see Tables 2-9, Appendix A). 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 were made by him.

A total of seven demographic items were included in the questionnaire which, from a theoretical standpoint, might correlate with, or predict, the criterion. These items are: sex, item 81; age, item 82; amount of education, item 87; work experience in education, item 83; marital status, item 84; religious preference, item 85; and perceived importance of and adherence to religion, items 86 and 96.

#### Change Orientation

This set of six questions was adapted by Felty (1965) from <u>Programa Inter-americano de Informacion Popular</u> in San Jose, Costa Rica to measure attitudes toward change in the following areas: self change, items 88 and 97; child rearing practices, item 89; birth control, item 90; automation, item 91; and political leadership change, item 92.

Educatio It attitude (item 93 as who si ning (ite . <u>Contact w</u> Persons Que tionalize the respo cluded ar category ( the most e <sup>ship</sup> exper item 101, <sup>avcided</sup>; i <sup>spondent</sup> g indicates With the h to measure (5) the am With Menta; Efficacy Attit <sup>22</sup>, and 12

# Educational Aid and Planning

Items were included in the questionnaire to measure attitudes regarding local government aid to education (item 93), federal aid to education (item 94), as well as who should have responsibility for educational planning (item 95).

# Contact with Handicapped Persons

Questions 98 through 106 were designed to operationalize variables involved in personal contact between the respondents and handicapped persons. The items included are conceptually distinct. Item 98 reports the category of handicap with which the respondent has had the most experience; item 99 reports the kind of relationship experienced; item 100, the frequency of contact; item 101, the ease with which the contact might have been avoided; items 102 and 103, the extent to which the respondent gained materially by the contact, while item 104 indicates the availability of alternatives to working with the handicapped. Items 105 and 106 were designed to measure respectively (a) the amount of contact, and (b) the amount of enjoyment experienced in the contact with mentally retarded persons only.

## Efficacy

Attitude items 107, 109, 111, 113, 115, 117, 119, 121, and 123, which appear in the questionnaire under the

heading Jordan 751f (1 liema l were ai additio with tH iincte. • zan and aponder: T.e Vie: ar.i Just Just Just Sigs Swn ----(1969) s Tan's ef Rowlein Mental Fr A ; tion, ite taning, C Nere sele leasure t responder.  heading "Life Situations" (Appendix B), were adapted by Jordan from a fully evolved Guttman Scale reported by Wolf (1967). Measures of intensity or answer "certainty," items 108, 110, 112, 114, 116, 118, 120, 122, and 124, 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.

This scale<sup>1</sup> was designed to measure attitudes toward man and his environment and attempts to determine the respondent's view of this relationship.

The coninuum underlying this scale<sup>1</sup> 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).

This variable has been termed "Efficacy" by Jordan (1969) since it purports to measure attitudes toward man's effectiveness in the face of his natural environment. <u>Knowledge about</u> <u>Mental Retardation</u>

A sixteen item knowledge scale on mental retardation, items 125 through 140, was adapted by Jordan from Haring, Stern, and Cruickshank (1958). These 16 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.

<sup>1</sup>See Code Book for scoring procedures for <u>all scales</u>. Scores are obtained by summing item alternative numbers.

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Since the items were extracted from the larger <u>General Information Inventory</u> (Haring, et al, 1958) the 16 items were subsequently submitted to item analysis.

As stated in the item analysis program (Office of Evaluation Services--Michigan State University, 1965) most test constructors desire items with indices of difficulty from 20 to 80, with an average index of difficulty from 50 to 60. By this criterion the MR knowledge scale is fairly adequate with the average level of difficulty being 40 for the graduate students and 50 for the undergraduates.

Examination of Table 8 indicates that seven of the items (126, 127, 128, 130, 134, 139, and 140) have an index of difficulty between 42 and 71 and that these seven items also discriminate fairly well between the upper and lower 27% of the total group in terms of total score. These seven items were used as the <u>Mental Retardation Knowledge</u> Scale in this study.

In Table 8 the Difficulty Index refers to the proportion of the total group who got the item wrong while the Discrimination Index indicates the difference between the proportion of the upper 27% who got the item right and the proportion of the lower 27% who got the item right.

### Reliability of the ABS-MR

The reliability of the ABS-MR was assessed by the Hoyt analysis of variance technique. The technique is described by Hoyt:

Item
125
<u>126</u> 1
<u>127</u>
<u>128</u>
129
<u>130</u>
- 32
-32
133
<u>194</u>
135 <sup>2</sup>
136
-37
138
2 <u>3</u> 2
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Item	Medical Inf (N	ormation Class = 88)	ED 200 (N =	<u>Class</u> 633)
	Difficulty Index	Discrimination Index	Difficulty Index	Discrimination Index
125	22	26	50	44
<u>126</u> 1	48	27	70	27
127	49	52	43	41
128	61	26	67	21
129	32	39	81	25
<u>130</u>	71	18	89	20
131	4	9	11	12
132	32	43	23	30
133	32	52	40	43
134	60	22	81	28
135 <sup>2</sup>				
136	3	0	5	14
137	27	39	33	38
138	13	26	27	49
<u>139</u>	42	57	50	53
140	48	48	38	36
Mean Standa Mean I Mean I Kuder	ard Deviatio Difficulty Discriminati Richardson	9.52 n 2.02 40 on 30 .31		7.93 2.06 50 30 .36

TABLE 8.--Item analysis of the mental retardation scale.

<sup>1</sup>Underlined items constitute the <u>MR Knowledge Scale</u>. <sup>2</sup>Keyed wrong, thus omitted from analysis.

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By subtracting the 'among students' and the 'among items' sums of squares from the total sum of squares, we have left the residual sum of squares which is used as the basis of estimating the discrepancy between the obtained variance and the true variance (1967, p. 110).

Hoyt (1967) indicates the split-half method of estimating reliability may result in deflated or inflated reliability coefficients. The Hoyt formula also provides the equivalent to a Kuder-Richardson formula 20 estimate.

The reliability coefficients for each level and the total of the ABS-MR on the three pilot study groups as well as the four groups of the present study are contained in Table 9.

### Validity of the ABS-MR

### Content Validity

Tyler (1963) states that content validity consists essentially in judgment. The content of the items in the ABS-MR was based on the judgment of practicing school psychologists (see Figure 1) in the field of mental retardation. Their expertise increased the likelihood of representativeness in the content of the 120 items finally selected.

## <u>Concurrent and Predictive</u> Validity

Concurrent and predictive validity may be inferred from the fact that the older, more experienced, and more knowledgeable group among the test development sample:

Level	I	II	III	IV	V	VI	Total	
SER <sup>1</sup>	74	82	64	79	85	78	87	
Ed 200 <sup>2</sup>	73	83	69	79	71	67	89	
Belize <sup>3</sup>	63	75	60	79	76	76	86	
SER <sup>4</sup>	58	66	84	83	90	78	87	
pmr <sup>5</sup>	82	88	57	60	89	80	90	
rst <sup>6</sup>	82	81	72	90	91	80	92	
$PNR^7$	63	73	75	86	86	76	90	

TABLE 9.--Hoyt reliability coefficients for the ABS-MR on seven groups.

 $1_{MSU}$  special education and rehabilitation students, December, 1967, N = 88.

 $^{2}$ MSU sophomore education students, January, 1968, N = 633.

<sup>3</sup>Belize primary teachers, January, 1968, N = 523.

4 Mexican-American special education and rehabilitation workers, May, 1969, N = 50.

 $^{5}$ Mexican-American parents of the mentally retarded, May, 1969, N = 50.

<sup>6</sup>Mexican-American regular school teachers, May, 1969, N = 50.

 $7_{\text{Mexican-American parents of the non-retarded, May,}$  1969, N = 82.

(the SER) also scored more positively toward the mentally retarded. Data were gathered for the three samples on 22 predictor variables (number 15-36, Table 10) which offer considerable "correlational" evidence (Table 2-4 in Appendix A) of the validity of the ABS-MR content in that groups with known characteristics responded as expected.

## Construct Validity

Tyler (1963) suggests that one method of construct validation is correlating items with total scores. The high item to total correlation, presented in Table A.ll in Appendix A, for all scales and groups, as opposed to the low inter-item correlations for each scale for all groups, give support to the construct validity of the ABS-MR.

Tables 6 and 7 also reflect the construct validity of the ABS-MR since the postulated semantic structure and the obtained statistical structure (i.e., the simplex) essentially agree.

Both the reliability and validity information is strong enough to warrant the use of the ABS-MR for research purposes.

### CHAPTER IV

# DESIGN AND ANALYSIS PROCEDURES

The purpose of the comprehensive international study<sup>1</sup> is to investigate the attitudes of designated groups in different nations toward the mentally retarded. Accordingly, nations were chosen at varying levels of modernization, economic development, and cultural orientation. The design of the international study, therefore, calls for samples from the same occupational or interest groups in different nations. Analysis procedures were chosen which permitted testing the relationships specified in the hypotheses.

### Sample

The present study used a sample from the Mexican-American population in Texas composed of the following four groups:

- (a) 50 Parents of Mentally Retarded Children
- (b) 50 Special Education and Rehabilitation Workers
- (c) 50 Regular School Teachers
- (d) 82 Parents of the Nonretarded

Selection of these four groups, whose attitudes were important in respect to the education, employment, and general well being of the mentally retarded, were chosen

<sup>&</sup>lt;sup>1</sup>See Chapter 1.

to make this study comparable to others in the comprehensive international study.

The border area of Texas from which the sample was drawn has a high concentration of Mexican-Americans. Persons familiar with the several border areas volunteered to help in obtaining the sample from each of the four groups cited above. Random sampling was not used because of the difficulty in obtaining cooperation from members of the four groups, especially the parents of the retarded. Representativeness was approached by sampling different sections of the community in the case of the parents of the mentally retarded (PMR) and parents of the non-retarded (PNR) groups; and sampling several different schools in the case of the special educationrehabilitation personnel (SER), and the regular teachers (RST). In terms of representativeness, the areas sampled have a high proportion of Mexican-Americans, 88% of some areas being populated by persons with Spanish surnames.

### Hypotheses of the Study

The variables in this study were intercorrelated (see Tables 5-9, Appendix A) to enable examination of relationships for both content and intensity scores of the criterion (ABS-MR) across each level (including total scores) with 29 independent variables. This facilitated testing of the following hypotheses.

## Relating Attitudes and Values

<u>H-1</u>.--Persons who score <u>high</u> in efficacy will score <u>high</u> in positive attitudes toward the mentally retarded on each of the six levels as well as the total score on the ABS-MR.

# Relating Attitudes and Knowledge

<u>H-2</u>.--Persons who score <u>high</u> in knowledge about mental retardation will score <u>high</u> in positive attitudes toward the mentally retarded on each of the six levels as well as the total score on the ABS-MR.

### Relating Attitudes and Contact

<u>H-3</u>.--The more <u>frequent</u> the contact with mentally retarded persons the <u>higher</u> will be the intensity scores on each of the levels of the ABS-MR.

<u>H-4</u>.--The more <u>frequent</u> the contact with other disability groups the <u>higher</u> will be the scores on the intensity statements on each of the levels of the ABS-MR.

<u>H-5</u>.--<u>High frequency</u> of contact with mentally retarded persons will be associated with <u>favorable attitudes</u> toward the mentally retarded on each of the levels of the ABS-MR <u>if</u> high frequency is concurrent with (a) <u>alterna-</u> <u>tive</u> rewarding opportunities, (b) ease of <u>avoidance</u> of the contact, and (c) enjoyment of the contact.

# Relating Attitudes and Religiosity

<u>H-6</u>.--Persons who score <u>high</u> on stated importance of religion will score <u>low</u> on positive attitudes toward the mentally retarded.

### <u>Relating Attitudes and</u> Demographic Variables

<u>H-7</u>.--Amount of <u>education</u> will be <u>positively</u> related to favorable attitudes toward the mentally retarded.

<u>H-8.--Age</u> will be <u>positively</u> related to favorable attitudes toward the mentally retarded.

<u>H-9</u>.--Women will score <u>higher</u> on positive attitudes toward the mentally retarded than will men.

# Relating Attitudes and Change Orientation

<u>H-10</u>.--Persons who score <u>high</u> on change orientation will score <u>high</u> on positive attitudes toward the mentally retarded.

# <u>Relating Attitudes to</u> <u>Opinions on Educational</u> <u>Aid and Flanning</u>

<u>H-ll</u>.--Agreement with government aid to education will be positively related to favorable attitudes toward the mentally retarded.

<u>H-12</u>.--Agreement with centralized government planning of education will be positively related to favorable attitudes toward the mentally retarded.

# Relating Attitudes and Group Membership

<u>H-13</u>.--The research groups will assume the following order with respect to favorable attitudes toward the mentally retarded: Teachers of the Mentally Retarded>Parents of the Mentally Retarded>Regular Teachers>Parents of the Non-Retarded.

# Relating Attitudes and Multidimensionality

<u>H-14</u>.--The ABS-MR scale levels or attitude subuniverses will form a Guttman Simplex for each of the sample groups.

### Analysis Procedures

The Control Data Corporation Computer (CDC 3600 and 6500) at Michigan State University (MSU) was used to analyze the data, which also facilitated the data being analyzed as an integral part of the larger comprehensive study by Jordan. Table 10 contains the variable list of the entire study by IBM card and column.

### Descriptive Statistics

Two Frequency Column Count programs (Clark, 1964), designated as FCC-I and FCC-II were used to compile the frequency distributions for every item of the instruments. This procedure is useful for selecting additional variables for analysis and for gaining a clinical "feel" for the data.

	Var	iable <sup>l</sup>	Card	Column	Page	Item
	1.	Stereotype	1	36,38 alter to 74	2-4	1,3 alter to 39
ى ھ	2.	Normative	2	36,38 alter to 74	5-7	41,43 79
pre	3.	Moral Eval.	3	36,38 alter to 74	8-11	81,83 119
ų ų	4.	Hypothetical	4	36,38 alter to 74	12-14	121,123 159
t i on	5.	Feeling	5	36,38 alter to 74	15-17	1,3 39
ت بن	6.	Action	б	36,38 alter to 74	18-20	41,43 79
4	7.	Total	1-6	same 1-6 above	2-20	same above
	8.	Sterectype	2	37,39 alter to 75	2-4	2,4 40
e N	9.	Normative	2	37,39 alter to 75	5-7	42,44 80
n -	10.	Moral Eval.	3	37,39 alter to 75	8-11	82,84 120
ht ns	11.	Hypotnetical	4	37,39 alter to 75	12-14	122,124 160
in the	12.	Feeling	5	37,39 alter to 75	15 - 17	2,4 40
At	13.	Action	6	37,39 alter to 75	18-20	42,44 80
H	14.	Total	1-6	same as alove	2-20	same above
7	15.	EfficacyCont.	7	30,38 alter to 52	28,29	107,109 123
-	16.	EfficacyInt.	7	37,39 alter to 53	28,29	108,110 124
X	17.	MR Knowledge	7	55-57,51,63,68,69	30-32	126-125,130,134,139,140
	13.	HP Amount	1-7	28	28	100
4	19.	HP Avoid	1-7	29	26	101
ac	20.	HF Income	1-7	31	26	103
Jt	21.	HP Alter	1-7	32	27	104
õ	22.	MR Amount	1-7	33	27	105
0	23.	MR Enjoy	1-7	34	27	106
1 1	24.	Age	1-7	10	21	82
ġ c	25.	Educ. Amount	1-7	15	21	87
ar ar	26.	Religion Impor.	1-7	14	22	86
	27.	Religion Adner.	1-7	24	24	96
	28.	Self Change	1-7	16	22	88
υ.	29.	Child Rearing	1-7	17	23	89
ມ ມີ ມີ	30.	Birth Control	1-7	13	23	90
e a	31.	Automation	1-7	19	23	91
L C	32.	Political Lead.	1-7	20	23	92
	33.	Rule Adher.	1-7	25	25	_97
2	34.	Local Aid	1-7	21	24	93
q	35.	Federal Aid	1-7	22	24	94
ш	36.	Ed. Planning	1-7	23	24	95
	37.	Sex	1-7	9	21	81
•0	38.	Ed. Contact Var	.1-7	11	21	83
60 00	39.	Marital Status	1-7	12	22	84
at t	40.	ReligAffil.	1-7	13	22	85
с а С	41.	HP Category	1-7	26	25	98
	42.	HP Gain	1-7	30	26	102

TABLE 10.--The ABS-MR: Basic variable list by IBM card and column.

1<sub>Based</sub> on the ABS-MR 3968 edition

<sup>2</sup>Not used in correlational analysis

 $^{3}$ K = Knowledge

<sup>4</sup>V = Value

### Correlational Statistics

In the CDC 3600 MDSTAT program (Ruble & Rafter, 1966), a great deal of data can be secured in one analysis. Separate analysis can be done for the total group and for any number of sub-groups, or partitionings of the data. For each specified group, (e.g., total, male, female) a number of statistics can be requested. Those used for each partitioning in this research were the means and standard deviations for each variable and the matrix of simple correlations between all variables.

Partial and multiple correlations are outputs of the general multiple regression model used in the CDC program at MSU (Ruble, Kiel & Rafter, 1966a). One benefit of 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, spurious conclusions may be obtained because the predictor variables are themselves inter-related 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: the beta weights of all predictor variables, a test of significance for each beta weight, and the partial correlations between each predictor and the criterion.

# <u>Analysis of Variance</u> <u>Statistics</u>

The UNEQI routine (Ruble, Kiel & Rafter, 1966b) was used to calculate the one-way analysis of variance statistics. This program is designed to handle unequal frequencies occurring in the various categories. In addition to the analysis of variance tables, the frequency, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean were included for each category.

A two-way analysis of variance design for unequal <u>n's</u> was used to analyze group-sex interaction (Ruble, Paulson & Rafter, 1966). Since the samples were not equal in size or sex ratio within groups, an "adjusted mean" was computed on which to base all <u>F</u> tests. The adjusted mean equalizes or accounts for the variance in the size of the group as well as for unequal sex distribution

within the samples. For convenience of computer programming the <u>F</u> statistic was used for testing of all mean differences, even though differences between two means are usually tested by the <u>t</u> statistic. Comparisons of the <u>F</u> and <u>t</u> statistics have shown that results are the same for the <u>t</u> and <u>F</u> test procedures (Edwards, 1965).

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 study the F test for group comparisons is the usual one while the F test used to test for differences between the "adjusted means" of "pairs of groups" is equal to a two tailed t test while also fully accounting for the other experimental factor. This procedure for testing for significance among multiple means is approximately equal to the Duncan's New Multiple Means Test (Edwards, 1960; Kramer, 1956, pp. 307-310) when more than three means are included, thus increasing the likelihood of Type I error. The procedure also does not account for non-independence among the pair-of-treatment means.

The approximate significance probability of the  $\underline{F}$  statistic is also included in the computer print-out. This convenient figure enables the researcher to know if

the <u>F</u> was significant without referring to a table. For example, if the number printed out was .05, the level of confidence, with appropriate degrees of freedom, would be .05 or less.

# The Q<sup>2</sup> Statistic

Kaiser (1962, p. 155) suggests a procedure for testing a simplex approximation: "for scaling the variables of a Guttman simplex . . . the procedure . . . orders the variables. A measure of the goodness of fit of the scale to the data is suggested."

Kaiser's approach may be seen as performing two functions: (a) a "sorting" of virtually all possible arrangements of data so as to generate the best empirically possible simplex approximation; and (b) an assignment of a descriptive statistic, " $\underline{Q}^2$ ," to specified matrices. The index  $\underline{Q}^2$  is a descriptive one, with a range of 0.00 to 1.00.

A computer program was developed which (a) reordered the level members of each matrix, by Kaiser's procedures, so as to generate the best empirically possible simplex approximation; and (b) calculated  $\underline{Q}^2$  for the hypothesized ordering and for the empirically best ordering of each matrix. The distribution of  $\underline{Q}^2$  has not been developed, therefore, probability statements about "better" or "worse" matrix ordering can not be made. However, the hypothesis of the present study examines

whether the six levels of the ABS-MR form the best simplex approximation when listed level-by-level, regardless of the order of administration.

At the time of the research completion, appropriate <u>likelihood ratios</u> for measuring goodness of fit were not available. Mukherjee (1966) suggests a method which appears appropriate for matrices of equally spaced correlations, but neither facet theory nor the actual data suggest that the matrices in the present study have equally spaced entries.

The next chapter will present the results of the study as they pertain to the acceptance or rejection of the research hypotheses stated in this chapter.

### 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, 3, 4, 6, 7, 8, 11, and 12 were analyzed using product-moment correlations. Hypotheses 5 and 10 were analyzed using multiple correlation as discussed in Chapter IV. Hypotheses 9 and 13 were analyzed using the analysis of variance technique outlined in Chapter IV. The MDSTAT item analysis program and the  $\underline{Q}^2$  program yielded the results to test hypothesis 14.

## Relating Attitudes and Values

<u>H-1</u>.--Persons who score <u>high</u> in efficacy will score <u>high</u> in positive attitudes toward the mentally retarded on each of the six levels as well as the total score on the ABS-MR.

The data as presented in Table 11 show there is no relationship between attitudes held by the four Mexican-American groups and degree of control they feel they have Over their environment. The items contributing to the Value scores are contained in the Life Situations scale (see Appendix B). In relation to how certain (intensity)

the four groups were about their attitudes, all four groups plus the total group showed a significant correlation across all levels of the ABS-MR intensity scores and the Efficacy content and intensity scales (Appendix A, Tables 5 through 9). H-l was not supported.

## Relating Attitudes and Knowledge

<u>H-2</u>.--Persons who score <u>high</u> in knowledge about mental retardation will score <u>high</u> in positive attitudes toward the mentally retarded on each of the six levels as well as the total score on the ABS-MR.

The amount of knowledge held by the total sample (Table A.9) of Mexican-Americans was positively correlated with the total score on the ABS-MR to a significant degree (Table 12). Also, the total group's responses to levels 2, 3, and 4 were significantly related to amount of knowledge in a positive direction. The Mexican-American SER group obtained a significant positive correlation between amount of MR knowledge and levels 1, 2, 3, and 4 as well as the total score on the ABS-MR. Although the PMR showed no significant relationship between attitude content and knowledge, Table A.6 reveals a significant positive relationship between amount of knowledge and levels 4, 5, 6, and total score for the ABS-MR intensity scale. H-2 was supported.

Level	Stat.	SER	PMR	RST	PNR	Total Groun
			EFFI	CACY (Cont	cent)	
Ч	r Sig.	10 14	-18 21	<b>1</b> 26	8 0 5 8	0 47
$\sim$	r เมิ เมิ	11 45	- 1 26	00 10	н 1 1 9	4-0 1-0
Μ	r sig.	24	-19 18	-03 81	10 36	000
4	r Sig.	24 08	- 05	- 14 32	15	0 0 1 9
Ś	r Sig.	10 50	07 63	- 00 12	00	02 71
Ó	r Big.	- 03 82	-04 76	- 05 73	с 10	2 0 8 2 3
Total	r sig.	23 10	-16 27	- 13 96	40 11	08 25
	Decimals omitted.			4 <sub>Regular</sub>	School '	Teachers.
Zorkers	Special Education and .	Rehabilitat	ion	5 <sub>parents</sub>	of the	Nonretarded.

<sup>3</sup>Parents of the Mentally Retarded.

		SER4, PMR4, RST	, and PNF	k <sup>c</sup> groups.			11
Leveì	Stat.	SER	PMR	RST MOWLEDGE	PNR	Total Group	
-1	r sig.	27 05	- 02 92	09 20	ы 0 0 1	06 34	1
(V	r sig.	45 001	21 14	50 20	04 75	19004	
m	r sig.	31 02	-05 73	0 4 8 0	1 2 8 2	14 02	
4	r sig.	41 002	-09 54	00 74	11	17 01	
ſ	or vir v	13	-07 60	- 02 91	-07	00 94	
Q/	มี เง	-05	16 27	-08	14 18	1 <i>2</i> 06	
Total	ក បុរ ព្រ	4 4 0 0 1	08 59	909 1	00 44	18 005	
	lDecimals on:	itted.					1

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Table 11. <sup>2</sup>See footnotes 2-5 in

# Relating Attitudes and Contact

<u>H-3</u>.--The more <u>frequent</u> the contact with mentally retarded persons the <u>higher</u> will be the intensity scores on each of the levels of the ABS-MR.

Table 13 reveals the AES-MR (Intensity) Personal Action level correlated positively and significantly with the amount of contact the total group had with the mentally retarded. Table 13 points up some unexpected between-group differences. The SER and PMR groups received a significant negative correlation between the amount of contact and attitude intensity for levels 6 and 1 respectively while the RST and PNR groups obtained significant correlations in the predicted direction for level 6 attitude intensity. An explanation for the conflicting results will be presented in Chapter VI. H-3 was confirmed based on the total group comparison.

<u>H-4</u>.--The more <u>frequent</u> the contact with other disability groups the <u>higher</u> will be the scores on the intensity statements on each of the levels of the ABS-MR.

Amount of contact with the disabled was unrelated to attitude intensity in all but one instance (Table 14). There was a significant inverse relationship between the amount of contact with persons having a handicap and how <u>certain</u> the SER group was about what other people believe mentally retarded persons <u>ought</u> to be able to do (Societal Normative). H-4 was not confirmed.

TABLE 13	Correlations <sup>1</sup> and sign intensity levels and American SER <sup>2</sup>	ificance d amount of PMR <sup>2</sup> , R <sup>3</sup>	levels be of MR con ST <sup>2</sup> , and	tween the tact for PNR <sup>2</sup> grou	six AB Mexican ps.	S-MR attitude -
ABS-MR Level	Stat.	SER	PMR AMOUN	RST T OF MR C	PNR ONTACT	Total Group
г	น มียู่เ ม	08 56	- 05 - 05	-09 -09 -	-11	- 58 58
Ω	r sig.	က က ဝ တ ၂	- 04 8 0	80 90 90	100	-13 05
ω	r Sig.	-04 78	1 0 0 0 0 0 0 0 0 0 0	05 71	-07	-09 19
カ	r Sig.	1 9 1 9	04 79	23 10	06 61	04 53
ſſ	r Sig.	-07 65	1 1 1	05 74	04 70	08 22
<del>م</del> ا	r sig.	-27 05	-04 79	39 004 004	40 000	24 000
Total	r Sig.	ო ო 0 დ I	-07 62	76 26	06 55	04 58
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<sup>1</sup>Decimals omitted.

<sup>2</sup>See footnotes 2-5 in Table 11.

ABS-MR	Stat.	SER	PMR	RST	PNR	Total Group
Level			NOMA	NT OF HP	CONTACT	
г	ы. С. Ч. С. Ч.	-25 07	-04 78	-14 33	-00 -	-10 11
2	r sig.	-27	18 21	0 6 0 8	1 25 25	-06 34
Μ	r sig.	-19 19	40 79	1 50 10 10	-12 30	-09 17
ţ.	r sig.	-16 27	с 0 1	08 57	- 14 22	- 06 35
ŝ	r sig.	-111 -	0 L1 0 L1	- 07 62	60 60 60	04 59
9	ห เมื่อ เมื่อ	22 11	24 0 <i>9</i>	-06 69	15	10 13
Total	r sig.	-16 27	16 27	0 0 0 1	- 02 - 02	-04 61

<sup>2</sup>See footnotes 2-5 in Table 11.

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<u>H-5</u>.--<u>High frequency</u> of contact with mentally retarded persons will be associated with <u>favorable attitudes</u> toward the mentally retarded on each of the levels of the ABS-MR <u>if</u> high frequency is concurrent with (a) <u>alternative</u> rewarding opportunities, (b) ease of <u>avoidance</u> of the contact, and (c) enjoyment of the contact.

The hypothesis for contact and favorableness of attitudes toward the mentally retarded was supported in that the multiple correlation coefficient for the total groups, comparing <u>all</u> contact variables (see variable list, Table 10) with the total ABS-MR (Table 15), indicated a high positive relationship. Comparing all contact variables with specific ABS-MR levels for the total groups (Table 15) reveals the personal feeling and action levels of the attitude continuum as being most related to contact.

The partial correlation coefficients for the contact variables, using the total group for comparison (Table 15) denotes a significant negative correlation between the ABS-MR personal action level and frequency of contact with the mentally retarded. The HP avoidance and MR enjoyment variables were positively correlated (p<0005 and p<01 respectively) with the ABS-MR personal action level; however, the alternative rewarding opportunities variable was not concurrent as required by H-5. Although the relationships did not approach significance (Table 15), all but one ABS-MR level by MR amount comparisons resulted in negative correlations.

impli signi zonet retar and . betwe AES-: posi: sona] 438**-**3 , inde tial WES : 880-: of t t; : (Tat) twee: and t tie " perso Wag s An unexpected finding, and one that could have implications for dissonance or balance theory, was the significant negative correlations between the amount of monetary reward received for working with the mentally retarded and the ABS-MR attitude levels (Tables 15, 16, and 19).

Multiple correlations for the SER group (Table 16) between contact with the mentally retarded and total ABS-MR attitude responses shows the comparison to be positive and significant at the .04 level. The SER personal moral evaluative and personal feeling levels of the ABS-MR correlated positively and significantly with the independent variable of contact. However, when SER partial correlations were considered, frequency of contact was negatively related to the personal action level of the ABS-MR (p<05). None of the SER group comparisons for any of the levels were in accord with the requirements set by H-5.

An interesting finding in relation to SER contact (Table 16) was the significant negative correlations between enjoyment of contact with the mentally retarded and the societal normative and personal feeling levels of the ABS-MR. From a behavioral perspective, however, the personal action level by enjoyment of contact comparison was significant (p<05) in a positive direction.

The multiple correlations for the PMR group (Table 17) between all contact variables and the separate levels of the ABS-MR yielded one significant correlation which was for the personal action level of the ABS-MR (p<05). The only significant partial correlation for the PMR group was between the personal action level and amount of contact with the mentally retarded, however, the correlation was negative.

The multiple correlation between contact and the ABS-MR for the RST group (Table 18) resulted in one positive significant correlation of .51 (p<05) at the societal normative level. Fartial correlations between individual predictor contact variables and attitude levels revealed three significant relationships for the RST group. The relationships were between the crucial indicator variables as stated in H-5 and progressively more action oriented levels of the ABS-MR; MR enjoyment significantly related to the societal normative level, HP alternative significantly related to personal moral evaluative level, and HP avoidance significantly related to the personal action level. This progression makes psychological sense but frequency of contact per se is not related to any of the ABS-MR levels in this comparison. However, a perusal of Appendix A, Table 8, shows amount of contact with the mentally retarded significantly related to the societal normative and personal action levels of the ABS-MR

(p>Ol and p>Ol respectively). Jordan's work (1968, 1969) helps explain this problem when he predicted and confirmed the importance of other contact variables besides amount of contact in attitude formation.

Multiple correlations for the PNR group (Table 19) yielded one positive significant difference between all independent contact variables and the ABS-MR societal stereotypic level. The partial coefficient between HP income and the ABS-MR stereotypic level was positive and significant at the p<001 level. HP alternatives were negatively related to the ABS-MR societal normative level (p<01) while MR enjoyment was positively related to the same level. H-5 was supported; based on the significant positive multiple correlations between combined contact variables and the total ABS-MR scale.

# Relating Attitudes and Religiosity

<u>H-6</u>.--Persons who score <u>high</u> on stated importance of religion will score <u>low</u> on positive attitudes toward the mentally retarded. It can be seen from Table 20 that H-6 was supported in one instance. The relationship between religious importance and personal feeling level yielded a highly significant negative correlation of -30 (p<007) for the PNR group. The significant positive correlation between personal action and religious importance for the PMR group (Table 20) was contrary to that predicted

BLE 15Multiple and partial correlations <sup>1</sup> between ABS-MR and contact variables for Mexican-American	total group. <sup>2</sup>
ΤA	

Independent Variables	Socie1 Stere	tal otypic	Societ Norm	tal	Persor Moral Evalua	nal itive	Persor Hypotr Behavi	al letical .or	Feelir Feelir	lal ษณ	Ferso Actio	nal n	Total	
	น	sig.	ч	sig.	<u>ب</u>	sig.	r.	મુંગ્	٩	• म स	្ន	sig.	۲.	sig.
HP amount	-06	40	- 02	80	02	77	00	96	-02	80	12	08	01	84
HP avoid.	۳03 ۱	17	10	15	11	60	12	20	16	01	30	005	21	002
HP income	-04	60	-10	13	-08	ی ای	-05	911	-13	05	-16	01	-15	02
HP alter.	-05	4- 2-	-11	11	10	15	ന്ദ സ്	63	06	07	10	<b>е</b> б	01	06
MR amount	-01	89	60 -	20	-08	22	-04	50	60	65	-13	05	60 <b>-</b>	20
MR enjoy	00	94	14	03	00	66	76	26	20-	0	17	10	60	19
Multiple R	13				17	37		17		- + 0 - + 0		- <u>-</u>		00

<sup>1</sup>Decimals omitted. <sup>2</sup>N = 232.

contact variables for Mexican-American	
and o	
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correlations <sup>1</sup>	SER
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nd	
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Independent Variables	Socie Stere	tal otypic	Socie Norm	tal	Perso Moral Evalu	na] ative	Persol Hypoti Behav.	nal hetical for	Feeli	าลไ กะ	Person Action	lal	Total	
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lDecimals omitted.

<sup>2</sup>Special education and rehabilitation workers.  $3_{\rm N}$  = 50.

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TABLE 17Mul	tiple a	and parti	lal corr	elations	l betwee PMR <sup>2</sup>	en ABS-M group3.	R and c	ontact 1	variable	s for M	exican-A	merican		
Independent Variables	Societ Sterec	cal typic	Societ Norm	al	Ferson: Moral Evaluat	al Cive	Ferson Hypoth Hehavi	al etical or	Feelin	La ro La ro	Persor Actior	lal	Total	
	<u>د</u>	sig.	ы	eis.	<u>ب</u>	50 10	بم	- 	2	ਦਾ ਤ	۶	sig.	۲.	sig.
HP amount	08	60	-22	14	-13	0 4	17	35	0.8	ξO	හ ද	07	04	62
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HP income	- 25	60	07	63	10	00 20	с С	ມີ ເກ	- 07	ē, ē,	01	26	-10	52
HP alter.	14	34	5	ci Ci	-07	c) C	14	0 0	00	сņ. Ю	05	75	13	39
MR amount	10	51	17	27	13	S.	् उ	13	Q C C	71	- 3 -	05	- 03	87
MR enjoy	01	95	05	73	20-	65	0 T	<i>С</i> л Сл	-01	95	25	60	60	55
		30		- - - - -	- 68 - 68	। ।	36 -	 	17		1 6 7 1 6 7		31	60

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<sup>1</sup>Decimals omitted. <sup>2</sup>Parents of the mentally retarded. 3<sub>N</sub> = 50.

Mexican-American	
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variables	
contact	
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ABS-MR	Eroup3.
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TABLE	

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Independent Variables	Socie Stere	tal otypic	Societ Norm	al	Persor Moral Evalua	al tive	Ferson Hypoth Beñav:	nal retical ior	Persor Feelir	nal ng	Persol Action	nal n	Total	
	ч	ડાં દ	2	े । हि	ч	• • 4.5 • 4 • 4 • 7 2	L.	• •r1 %	r	sig.	5.	sig.	r	sig.
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HP avoid.	-15	34	04	62	54	12	5	4.0	08	60	55	03	17	52
HP income	-28	0 Ć	-18	(J (J	£ 1	e e	01	9 Q	ń0-	57	-12	45	-15	34
HP alter.	-21	16	1 0 8 0	61	31	04	18	цћ Су	05	06	-03	85	05	72
MR amount	25	60	19	50	80 -	ന ബ	01	53	00	5	25	10	20	19
MR enjoy	00	76	31	40	10	1.	0 0	91	13	0 7	60 -	57	32	15
	38 -	32	51	   †0 	• • ₹ • ₹	   00   1 	1 5 1	- 02	। मट ।	1 3 1 1 1	   1   1   1   1		4 1 1	13

l<sub>Decimals</sub> omitted.

<sup>2</sup>Regular school teachers. 3<sub>N</sub> = 50.

is <u>santtele and partial currelation<sup>1</sup> retries Abi-200</u> and contact variation for dexican-American 

TABLE 19Mul	ltiple	and parti	lal corr	elation <sup>1</sup>	between PTR4	a AEC-MR 2 group 3	and co	ntact va	riables	for Mex	:1can-Am	erican	·	
Independent V <b>ari</b> ables	Socie Stere	tal otypic	Societ Norm	al	Ferson: Moral Evaluat	al Cive	Ferson Hypoth Behavi	al etical or	Ferson Feelin	ал ж	Ferson Action	al	Total	
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HP amount	-20	08	04	70	ő	45	- 0 -	65	-12	28	14	54	-01	εó
HP avoid.	04	70	05	89	00	Ū.	80	67	10	10	15	21	11	33
HP income	Ιħ	0005	16	17	40	72	15	20	00	26	-07	52	16	17
HP alter.	01	76	-29	01	-06	60	10	76	00	66	00	66	-07	56
MR amount	60	41	-07	57	-06	63	-04	72	-12	31	60	70	-02	07
MR enjoy.	08	50	26	02	14	23	17	15	04	72	15	18	19	10
			36 -	- 60 -		90	- 58 - 58	 - +1	23	64	1 1 8 1	90	1 28 1	- T - T - T

<sup>1</sup>Decimals omitted. <sup>2</sup>Parents of the nonretarded. 3<sub>N</sub> = 82.

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and is discussed in Chapter VI. Table 6 in Appendix A shows a positive significant correlation between religious importance and attitude intensity for the PMR group.

# Relating Attitudes and Demographic Variables

<u>H-7</u>.--Amount of <u>education</u> will be <u>positively</u> related to favorable attitudes toward the mentally retarded.

The data indicate, when the whole sample is considered, there are no significant relationships between amount of education and the total ABS-MR attitude levels (Table 21). Observing the groups separately finds the RST group responding as predicted to the total ABS-MR (p<01) and as predicted to levels 4 and 5 of the ABS-MR. The significant negative correlation of -25 between amount of education and level 1 of the ABS-MR for the PNR group is counter to H-7 and will be considered in Chapter VI. H-7 was not confirmed.

<u>H-8.--Age<sup>1</sup></u> will be <u>positively</u> related to favorable attitudes toward the mentally retarded.

The significant positive relationship (Table 22) between age and the stereotypic level for the total group lends support to hypothesis H-8. A correlation of .31 between age and the stereotypic level of the ABS-MR was significant for the SER group. These findings point up the strength of using facet analysis in scale construction. The ability to tap different levels of an attitude gives

<sup>&</sup>lt;sup>1</sup>See Code Book and instruments for the "meaning" of all scores; i.e., an age score of 2.3 indicates an age of about 34--see Code Book, Card 1, Column 10, Page 216.

l r sig.	51	с Г		Eva	DND	
l sig.		VIT	RELIGION	I IMPORTA	NCE	TOUAL GLOUD
		07 64	- 13 35	803 80	09 41	03 66
2 r sig.	1	803 803	00 96	19 17	-01 91	-01 84
3 sig.		09 5 <b>3</b>	- 06 69	02 60	00 96	01 95
4 r sig.	2 0 1	00 96	10 48	50 50	- 08 50	- 03 64
5 sig.		04 78	18 20	- 06 7 0	- 30	-12 07
6 r sig.		07 60	29 04	00 66	-06 -06	- 03 -
Total r sig.		08 59	10	4 J	-10 38	- 04 50

<sup>2</sup>See footnotes 2-5 in Table ll.
r - c - c	Stat.			E		( , , ,
		SER	РМК	RST	PNR	Total Group
<b>н</b> (			AMOUN	NT OF EDU	CATION	
$\sim$	r Sig.	80 80 80	-05	17 23	-25 02	- 05 4 6
l	r Sig.	18 20	10 14	17 22	- 10 35	05 41
ω	r sig.	12 38	-04 76	18 20	0 Q 0 8	04 52
4	r sig.	12 40	05 72	34 01	1 0 0 0 0 0 0	07 27
2	и. В С	01 91	- 06 63	05 03 03	0 3 7 7	07 29
9	r sig.	-04 76	-05	01 92	12 26	02 79
Total	ნე ა ა	а М М М	08	33	100 100 1	06 39

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<sup>2</sup>See footnotes 2-5 in Table 11. lDecimals cmitted.

TABLE 2	2Correlation <sup>1</sup> and s levels a SER2,	ignificance nd age for PMR <sup>2</sup> , RST <sup>2</sup>	levels b the Mexic and PNR	etween the an-America 2 groups.	e six AB in	S-MR attitude
Level	Stat.	SER	РМК	RST AGE	PNR	Total Group
	r sig.	31 02	19	01 93	07 57	13
5	ក សំរុម ល	20 16	50 10	- 50 00 00	1 1 0 0	-02 78
m	r sig.	-12 40	17 23	-06 70	-08 14 08	- 05 45
4	r Sig.	8 5 8 0	20 17	-23	I 200 100	- 09 180
ſ	r Sig.	0 5 5	15 30	0 5 0 5 0 5	-14 20	- 04 58
9	r sig.	23 10	40 79	-05 71	10 00	- 01 86
Total	r งาศ.	18 19	22 13	-11 43	-10 39	-02 72
	Decimals omitted.					

<sup>2</sup>See footnotes 2-5 in Table 11.

the researcher more understanding of the relationships between certain variables. In regard to H-8, increases in age may influence the knowledge or awareness of a person to how others view the mentally retarded (stereotypic level) but have no effect on that individual's own personal behavior. H-8 was confirmed.

<u>H-9</u>.--<u>Women</u> will score higher on positive attitudes toward the mentally retarded than <u>men</u>.

The multiple means test for hypothesis 9 indicates (Table 23) that Mexican-American men had significantly more positive stereotypic attitudes than Mexican-American women, a finding opposite to that predicted. The adjusted mean of 35 for the 76 males was significantly greater than the adjusted mean of 33 for the 150 females. Although males are more aware of other persons' attitudes toward the mentally retarded, the sexes in the present sample do not differ at the more personal or behavioral end of the attitude spectrum. Hypothesis 9 was not confirmed.

# Relating Attitudes and Change Orientation

<u>H-10</u>.--Persons who score <u>high</u> on change orientation will score <u>high</u> on positive attitudes toward the mentally retarded.

The hypothesis for change orientation and attitudes toward the mentally retarded was supported based on the significant (p<002) positive multiple correlation of .26

ش باندار، <del>روج منظور بر رو</del> ی	v	ariatle		SI	- B		ΡM	R		BS	т		PN	IR
	•		N	м	Adj. M	N	м	Adj. M	N	M	Adj. M	N	M	Adj. M
Attitude	1.	Stereotype	50	31	31	50	35	35	50	34	34	82	34	34
Content	2.	Normative	50	35	35	50	40	40	50	36	35	82	34	34
	3.	Moral Eval.	50	44	44	50	47	47	50	45	45	82	43	43
	4.	Hypothetical	50	46	46	50	49	49	50	44	44	82	44	44
	5.	Feeling	50	44	44	50	43	43	50	39	39	82	40	40
	6.	Action	50	35	35	50	39	39	50	53	29	82	29	30
	7.	Total	50	235	235	50	254	254	50	227	227	82	224	225
Attitude	8.	Stereotype	50	43	43	50	47	47	50	40	41	82	42	42
Intensity	9.	Normative	50	40	40	50	45	45	50	41	41	82	43	42
	10.	Moral Eval.	50	45	45	1:0	48	48	50	46	46	82	46	46
	11.	Hypothetical	50	47	46	50	48	48	50	48	48	82	47	47
	12.	Feeling	Ļ G	50	5 G	50	49	4.9	50	48	48	82	47	47
	13.	Action	50	43	44	50	46	47	50	31	32	82	34	35
	14.	Total	ξC	268	269	50	284	285	ĘĴ	254	255	82	259	259
Value	15.	Efficacy-Cont.	50	23	23	50	24	24	50	24	24	82	23	23
	16.	Efficacy-int.	50	28	29	50	28	28	50	28	28	82	28	28
Knowledge	17.	MR Knowledge	50	16	10	50	17	17	Ę.,	16	16	82	16	17
Contact	18.	HE Amount		4	3	50	4	2.3	50	4	1.7	82	4	1.8
	19.	hi Aveld	54	ŝ	4.2	50	5	4.2	50	2	2.4	81	2	3
	20.	HF Income	50	3	2.9	50	2	1.1	50	3	1.4	80	3	1.2
	21.	HF Alter.	50	3	4.1	50	1	1.2	50	1	1.2	82	1	1.4
	22.	MR Amount	50	4	3.9	50	1	1.6	50	1	1.4	82	1	1.7
	23.	MR Enjoy.	50	4	Ĺ,	50	2	4.4	ξO	1	1.8	82	2	2.3
Demo-	24.	Age	50	1	2.3	50	1	3.4	50	1	2.7	78	1	2.8
graphic	25.	Educ. Amount	50	4	4.4	50	4	3	50	4	5	81	4	3.7
	26.	Religion Impor.	50	2	4.2	50	2	4.3	5¢	2	4.2	77	2	4.3
	27.	Religion Adher.	50	2	4.2	50	2	4.2	50	2	4.2	77	2	4.2
Change	28.	Self Change	50	4	2.4	50	3	2.4	50	5	2.4	82	4	2.3
Orien-	29.	Child Rearing	50	2	3.1	50	2	3.2	50	2	3.3	82	2	3.2
tation	30.	Birth Control	50	3	2.4	50	3	2.4	50	3	2.9	79	3	2.94
	31.	Automation	50	2	3.1	50	2	3.2	50	3	3.5	82	3	3.3
	32.	Political Lead.	50	3	2.9	50	3	2.94	50	4	3.1	82	3	2.5
	33.	Rule Adher.	50	4	2.6	50	4	2.2	50	4	2.5	82	2	2.7
Education	34.	Local Aid	50	3	3	50	3	3	50	3	3.3	80	3	3.2
	35.	Federal Aid	50	3	3.2	50	3	2.8	50	3	3.1	82	3	3.2
	36.	Ed. Planning	50	3	2.6	50	3	2.6	50	3	2.6	82	3	2.6

TABLE 23.--Sample size, means, adjusted means and significance test results for the four Mexican-American sample groups on the ABS-MR.

	Mal	e		Fema	le	Greup	Dig. of	Multiple Means
N N	М	Adj. H	¥	2	Aaj. X	<u>F</u>	<u>F</u>	Test
76	35	35	1500	33	33	3.81	.01	M>F, R>3, R>N
76	3ti	36	15.0	84. -	35	7.54	.0005	R>C, R>T, B>N
76	45	4.5	$1  \mathrm{yel}$		45	5.01	.002	E>C, E>N
76	45	45	1 [7.1]	46	46	7.19	.0005	R>C, R>T, R>N
76	42	4.2	110	-1	41	4.15	.002	∴>T, C>N, R>T, R>N
76	33	35	•	35	÷.,	34.77		S>T, B>S, S>N, R>T, R>N, T>N
76	235	236	150	- 683 	233 	17.03	.0005	E>C, E>T, E>N
76	43	<del>~</del> 3	150	•• 3	43	5.54	.201	E>27, E>17, E>11
76	41	41	$1\pm \phi$	4	ч.	<u>.</u>	• G •	2>0, 2>1, 5>1
76	4 É	40	<b>4</b> 5.6	·· *	44 <u>t</u>	⊾. 20	.275	
76	46	40	150	• 5	·• ·	• • 1	.+ 也	
76	48	48	110	46	ч 📜	1.00	.365	
76	38	39	1:0	3.4	3.1	15.01	.0005	C>T, C>N, R>I, N>T, R>N
76	262	264	190	itt	. : T	4.19	.ůů.	E>T, E>N
7 Ú	24	<i>z</i> 4	150	. ;	23	.756	• 52	
76	28	29	15u	ې	. ۲	.412	.75	
70	10	16	190	17	17			;-> <b>;</b> -
i b	5	I.1	1	,		.11.43	. 5765	0>R, C>H, C>N, R>T, T>N, R>N
76	;	3.	111	;	:•;	· · · · ;		.>T, C>N, E>T, N>T, E>N
76	2	1.0	150	•		• • .76	.2005	C>T, C>H, S>N, T>R, N>R
76	ć	2.0	150	÷	1.	130.13	• 200Ē	0>7, 0>8, 0>8, N>7, N>8
76	Ê	2.1	1 ° 1		•••	41.77	.1005	C>T, J>R, C>N, N>T.
75	3	3.1	<u>.</u>	3	5	±\$+74	رځ ښ د پار	.>T, J>N, E>T, N>T, E>N
76	3	•		÷		12.70	.0005	N>F, T>J, H>C, N>S, R>T, R>N
7 É	4	<b>~.1</b>	194		3	·	.0465	T>C, C>F, C>N, T>P, N>T, N>R
76	4	4	149	4	4.4	.14	• 3	F>M
76	4	4	149	4	4.4	.14	•93	F>M
76	2	2.3	150	2	2.4	. 14	.98	
76	3	3.1	150	3	3.2	• 39	.76	
76	2	2.0	150	3	2.7	ć.37	.0005	T>S, N>S, T>R, N>R
76	3	3.3	150	3	3.2	2.73	.05	T>S, T>R, T>N
76	2	2.8	150	3	2.8	3.31	.02	T>N
76	3	2.7	147	2	2.4	2.79	.04	S>R, N>R
76	3	3.2	150	3	3.1	1.47	.22	
76	3	3.1	150	3	3.1	1,98	.12	S>R, N>R
76	3	2.6	150	3	2.6	.19	.91	

1 3=SER, R=FMR, T=KCT, N=FNR.

²p<.05

which accounted for .07% of the variance of the total ABS-MR by the independent variable (six change orientation variables) for the total groups.

Levels 3, 5, and 6 of the ABS-MR (Table 24) were most affected by change orientation for the total group. The multiple R between change orientation and the action level was .30 (p<002) which accounted for .09% of the variance in the criterion by the independent variables. The multiple R between change orientation and the feeling level of the ABS-MR was .28 and accounted for .08% of the variance. The multiple R between change orientation and the personal moral evaluative level was .24 and accounted for .06 of the variance.

The partial correlation coefficients for the total group shows self change to be significantly related (p<05) to positive attitudes toward the mentally retarded. More progressive child rearing practices and the belief that automation can be helpful to mankind were also significantly related to positive attitudes toward the mentally retarded.

Birth control was negatively correlated with the personal feeling and action levels and total of the ABS-MR for the total groups. Table 10 in Appendix A indicates the total group's mean response to variable 30, Birth Control, was "it is <u>probably right</u> to practice birth control."

TABLE 24Mul	tiple a	and part	ial corr	elation: Ar	a <sup>l</sup> betw∈ nerican	een ABS-P total <sup>2</sup> <sub>e</sub>	aR and c group3.	change or	ientati	lon varie	ables f	or Mexica	- ц	
Independent Variables	Socie1 Sterec	tal otypic	Societ Norm	al	Persor Koral Evalue	nal itive	Persor Hypoth Eehavi	nal netical ior	Feelir	L PI	Perso Actio	nal n	Total	
	ы	sig.	بك	ા દેવ ક	ĥ	sig.	5	ະ ເມື່ອ ເ	54	• ສະ ເງ	54	in B	۶	भूषि द
Self change	60	18	12	07	2 C	ୁମ ସ	10	in in	08	21	11	10	14	04
Child rearing	-11	11	е С	0 2	13	00d	10	* F	-07	31	13	06	20	29
_ Birth control	10	84	60 -	20	40 <b>-</b>		-06	ဆ	i 1	0.07	-23	0005	-16	02
Automation	08	23	00	94	07	30	03	69	18	006	50	44	08	24
Political Lead	1. 02	80	02	ē,	65	46	0.0	) 6	0¢	39	08	22	06	36
Rule Adher.	20	27	<b>-</b> 03	64	03	φ5	04	65	13	QQ	05	45	20	26
 Multiple R		- - 0† -		- - - - - - - - - - - - - - - - - - -	• • • • •	+0 +0	1   - <del>3</del> 	- 29 - 1	ι α ι α ι		- 00 - 30 			02

<sup>1</sup>Decimals omitted. <sup>2</sup>SER, PMR, RST, and PNR.

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3<sub>N</sub> = 232.

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The SER group obtained no significant multiple R's between change orientation and the ABS-MR but partial correlation comparisons indicated rule adherence, political leadership, and birth control to be significantly related to attitudes toward the retarded (Table 25). Rule non-adherence correlated positively with the personal feeling level of the ABS-MR (p<05) and political leadership change correlated positively with the personal action level of the ABS-MR (p<04). Like the total group, significant negative correlations were obtained for the SER group between birth control and the personal feeling level (p<03) as well as the total of the ABS-MR (p<04). Table 10 in Appendix A indicates that the SER group's mean response was, "it is probably right to practice birth control."

The multiple R (.50) between change orientation and the personal feeling level of the ABS-MR was significant (p<04) and accounted for 25% of the variance in level 5 by the independent variable for the PMR group (Table 26). Partial correlations show rule non-adherence significantly correlated in a positive direction to the stereotypic (p<05) and feeling levels (p<03) of the ABS-MR. The mean response to political leadership change for the PMR group was 3 (see Table 10 in Appendix A), agreement with democratic principles, yet political leadership change was predictive of negative personal action attitudes toward

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TABLE 2

Independent Variables	Socie Stere	tal otypic	Societ Norm	tal	Fercor Moral Evalu:	ial ative	Ferso. Nypot Benav	nal Netical ior	Persor Feelir	lal B	Persor Action	ial i	Total	
	<u>د</u>	sig.	5	เก ย	s.,	5 <u>4</u> 1 	<b>F</b> 4	ાં છે.	น	sig.	<u>ب</u>	ાં છે.	5.	sig.
Self change	11	48	20	14	- 14	22	53 53	13	11	43	06	68	22	14
Child rearing	01	91	04	78		57	-06	69	-08	60	-07	67	- 03	84
Birth control	-13	39	-28	Об	-11	्र ज	-15	31	-32	03	-04	80	-31	01
Automation	10	70	06	70	-05	74	05	3 B	14	35	-14	35	01	с П
Political Lead	I02	06	07	6 H	00	ар Эх	- 05	<b>S</b> 3	53	13	30	04	18	54
Rule Adher.	17	26	11	91	104	71)	08	62	29	02	-17	27	12	77
	 	86 - 1	י ה ה ו	51	- 10 - 1	1 1 3 6	   58   		- 1 - 1 -	14 -		53	36	27
				-										

<sup>2</sup>Special education and rehabilitation workers  $3_N = 50$ . <sup>l</sup>Decimals omitted.

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Independent Variables	Socie Stere	tal otypic	Societ Norm	al	Fersor Moral Evalua	al tive	Fercor Hypoti Hehavi	nal netical lor	Ferson Feelin	เ เ ช พ	Fersor Action	lal	Total	
	អ	sig.	ក	sig.	54	- 50 - 12 - 12	ч	ь: •П •Э	۶.	- 50 	۶.	- म् र	- بـع	s1g.
Self change	15	32	26	08	12	7 17	-13	5. 5.	12	24	ú6	69	19	50
Child rearing	00	66	19	21	05	75	-02	00	с О	رب 4	05	75	10	<del>ر</del> ل
Birth control	20	18	10	94	60	52	- 0 8	62	-1- 0	81	24-	00#	-04	79
Automation	-11	. 4	-21	17	-06	71	60 1	56	63 8	06	02	88	-06	69
Political Lead	. 12	ŕ š	20	63	03	84	-03	84	-23	13	- 33 1	бо	60-	57
Rule Adher.	30	05	05	77	-06	69	90-	68	33	03	12	42	20	18
	46		37	 34	17		50			- +0	   8   			- τ -

lDecimals omitted.

<sup>2</sup>Parents of the mentally retarded.

3<sub>N</sub> - 50.

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the retarded (r = -.33, p<03). Birth control was negatively correlated with the personal action level of the ABS-MR for FMR group (p<004), agreement with birth control practices being associated with negative attitudes toward the retarded.

The multiple R (.51) for the RST group between change orientation and the personal moral evaluative level of the ABS-MR was significant (p<04) and accounted for 26% of the variance in level 3 by the independent variables (Table 27).

Automation and rule non-adherence were significant determinants of positive attitudes toward the retarded for the RST group. Rule non-adherence correlated .34 (p<02) with the moral evaluative level of the ABS-MR. Automation correlated .38 (p<01) with the moral evaluative level and .32 (p<03) with personal feeling level of the ABS-MR.

Table 28 reveals attitude levels 3, 4, and 6 were most related to change orientation for the PNR group. The multiple R of .48 between the predictor (rule nonadherence) and the criterion (moral evaluative level) was Significant at the p<.003 level and the  $R^2$  accounted for 23% of the variance of the criterion by the predictor. The multiple R of .40 between change orientation and the personal hypothetical level was significant at the p<04 level, change orientation accounting for 16% of variance in the dependent variable. The multiple R of .46 between

Independent Variables	Socie Stere	tal otypic	Socie Norm	tal	Person Moral Evalué	nal ative	Perso Hypoti Benav	nal hetical ior	Persor Feelir	าal าธ	Persor Actior	la l	Total	
	<u></u> រ	sig.	2	sie.	2	sig.	54	sig.	<u>ب</u>	sig.	<u>م</u>	sig.	۲.	sig.
Self change	-11	48	- 06	63	-20	19	-04	78	-13	41	18	21	.00 -	57
Child rearing	-24	12	-26	0.0	00	66	-06	67	-17	5	00	66	-20	18
Birth control	-04	67	04	78	03	82	-10	52	-05	75	-10	53	-06	69
Automation	21	.16	11	14 8	38	01	04	78	32	03	-21	16	22	15
Political Lead	102	06	70	81	26	60	60	73	06	69	04	82	10	51
Rule Adher.	-06	11	-07	66	34	02	25	10	17	28	00	26	17	27
Multiple R	35		31	 61	51	- + 0 - +		- 08 - 08	36		- 58 - 28		31	61

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<sup>1</sup>Decimals omitted.

<sup>2</sup>Regular school teachers. 3<sub>N</sub> = 50.

change orientation and personal action was significant (p<006), change orientation accounting for 21% of the variance in the dependent variable. The total ABS-MR and change orientation multiple R of .45 was significant (p<008), and the R<sup>2</sup> accounted for 20% of the variance of the dependent variable by the independent variable.

Significant partial correlations for the PNR group were more numerous and, in some cases, quite different than the other three goups (Table 28). Self change correlated (.22) significantly (p<05) with the stereotypic level and the total of the ABS-MR. Automation was positively correlated with the stereotypic level (p<02) and the action level (p<007) of the ABS-MR. Rule nonadherence correlated .30 with the personal action level of the ABS-MR and was significant at p<007 level.

The two change orientation variables on which the PNR sample differed from the other groups were child rearing and birth control. A negative correlation of -.23 between child rearing and the stereotypic level was significant at the .05 level, however, on a more behavioral level, child rearing correlated .27 with the personal action level of the ABS-MR. This difference will be explored in Chapter VI. While birth control was predictive of negative attitudes toward the retarded for the other three groups, birth control correlated .25 with personal hypothetical behavior level of the ABS-MR for the PNR group,

					American	n FuR <sup>2</sup> g	roup <sup>3</sup> .	)						
Independent Variables	Socie Stere	tal otypic	Socie Norm	tal	Fercol Moral Evalua	nal ative	Persol Hypoth Behav	nal hetical ior	Persor Feelir	าลไ าศ	Person Action	lal	Total	
	<u>ب</u>	sig.	٩	sig.	<u>ہ</u>	się.	<u>ب</u>	sig.	54	olg.	5	ະ <del>ເ</del>	54	sig.
Self change	22	50	15	20	53	04	10	55	12	29	10	40	22	05
Child rearing	-23	05	+0-	72	2 9	10	31	20	-10	б Я	27	02	13	28
- Birth control	08	51	06	60	17	13	52	60	-10	0 11	+0 -	76	12	30
Automation	27	02	19	60	13	27	12	31	27	05	00	40	25	03
Political Lead	. 02	88	-14	23	60-	43	14	22	14	23	00	óó	- 06	60
Rule Adher.	06	63	- 03	81	07	54	02	86	0	87	30	200	12	30
Multiple R	37	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		39				to	35	13		006		1 00 1 00

TABLE 28.--Multiple and partial correlations<sup>1</sup> between ABS-MR and change orientation variaties for Mexican-

<sup>1</sup>Decimals omitted.

<sup>2</sup>Parents of the nonretarded.

3<sub>N</sub> = 82.

this comparison being significant at the .03 level. A discussion of this finding will follow in Chapter VI.

## Relating Attitudes to Opinions on Educational Aid and Planning

<u>H-ll</u>.--Agreement with government aid to education will be positively related to favorable attitudes toward the mentally retarded.

The results, as indicated in Table 29, confirm H-11. The total group had positive significant correlations between the moral and feeling levels of the ABS-MR and agreement with government aid to education. Agreement with government aid to education was significantly related to favorable attitudes toward the mentally retarded on the personal feeling level for the PMR and RST, on the societal normative level for the SER, and on the personal moral evaluative level as well as the total ABS-MR for the PNR group.

<u>H-12</u>.--Agreement with centralized government planning of education will be positively related to favorable attitudes toward the mentally retarded.

Educational planning was negatively correlated with the personal feeling level for the SER group, a finding opposite to that predicted (Table 30). Support for H-12 came with the significant positive relationship between the predictor variable and the personal hypothetical level for the PMR group as well as between the personal feeling

evels between the six And-FR attitude

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Level	Stat.	SER	PMR	RST	PNR	Total Group	
			GOV	'ERNMENT A	ID		
Ч	r Sig.	-01 93	н с) Ю ГО	02 87	14 22	08 23	
N	r sig.	28 04	- 03 84	0 S 0 S	15	06 35	
Μ	ក ល ល	04 80	- 03 - 03	23 10	30 005	15 02	
4	ក ស្ពុ.	00	21	02 87	16	06 39	
IJ	ר א מי סי	-19 17	0 % 0 %	39 004	10	14 03	
Q	r vi og	- 08 60	- 09 -	00 96	10 39	90 e 90 e 1	
Total	ม เม เม	00 97	40 40	18 20	26 02	10 11	
	l Decimals omitted.						

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<sup>2</sup>See footnote: 2-5 in Table ll.

TARLE = 30. --Correlations L and strutfleance levels between the six ARS-MR attitude

TABLE 3(	)Correlations <sup>±</sup> and sigr levels and educati SER <sup>2</sup> , PMF	lificance lonal plan R <sup>2</sup> , RST <sup>2</sup> , e	levels be ning for and PNR <sup>2</sup>	etween the Mexican-A groups.	e six AB merican	S-MR attitude
Level	Stat.	SER	PMR	RST DIANAL DIA	PNR	Total Group
			EDUCA	LTUNAL FLA	DNITNNI	
Ч	r sig.	-03 81	06 68	08 56	04 72	16 81
$\sim$	r Sig.	-14 33	- 09 - 55	-05 74	01 93	-10 14
Μ	r Sig.	-16 27	03 07	12 39	18 10	01 88
4	r Sig.	00 97	28 04	803 803	0 7 7	04 54
IJ	r Sig.	- 34 01	4 0 4	34 01	10 33	0 7 Ú
6	r Di.	16 26	- 00 100	1 S 4 O	н 0 0 б	02 71
Total	r Sig.	- 16 25	8 0 3 8 0	18 21	14	01 87

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<sup>1</sup>Decimals omitted.

<sup>&</sup>lt;sup>2</sup>See footnotes 2-5 in Table 11.

anc exg Cha Rel Gr Wi re Pa Pa fa 23 ţ. г., г.<del>.</del> t€ 10 . Ca Ĩ.( e, <u>r.</u>  and educational planning variables for the RST group. An explanation for the negative finding will be advanced in Chapter VI. H-12 was partially confirmed.

# Relating Attitudes and Group Membership

<u>H-13</u>.--The groups will assume the following order with respect to favorable attitudes toward the mentally retarded: Special Education and Rehabilitation Workers> Parents of the Mentally Retarded>Regular School Teachers> Parents of the Non-retarded.

An analysis of variance, as depicted in Table 23, failed to confirm hypothesis 13. As can be seen in Table 23 the four group means for all levels of the ABS-MR plus the total ABS-MR were significantly different. The lowest  $\underline{F}$  was .01 while four of the seven  $\underline{F}$ 's reached the .0005 level of significance.

Although the Group  $\underline{F}$ 's show significant differences between the groups for each level (Variable 1-7), the Multiple Means Tests reveal not all groups were significantly different from each other on each level.

The Mexican-American PMR group had significantly more positive attitudes toward the mentally retarded on every level than did the other groups. The number of significant group differences increased as the levels became more behavioral or action oriented. However, contrary to hypothesis 13, the order of group favorableness was PMR>SER>RST>PNR, the reversal being between the PMR and SER groups.

The ABS-MR intensity measures (Variables 8, 9, 13, and 14, Table 23) indicating the PMR group to be more certain or sure of their attitudes than the other groups is further evidence for the relationship between contact and intensity. Intensity levels 3, 4, and 5 (Variables 10-12, Table 23) did not significantly discriminate between the four groups.

# Relating Attitudes and Multidimensionality

<u>H-14</u>.--The ABS-MR scale levels or attitude subuniverses will form a Guttman simplex for each of the sample groups.

The results from the four sample groups (Table 31) form an approximate <u>simplex as predicted</u> from Table 4. Examination of Matrices 31.1, 31.3, 31.5, and 31.7 in Table 31 indicates that correlations between the six levels decrease in relation to the number of steps two levels are removed from each other.

The  $\underline{Q}^2$  value for the SER original matrix (Matrix 31.1) was .83 compared with a best  $\underline{Q}^2$  value of .88 (Matrix 31.2). The original SER matrix (Matrix 31.1) had four reversals of level correlations. As indicated in Chapter III, Hamersma's (1969) study uses "six-reversals"

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as the maximum acceptable for a 6 x 6 data matrix to contain and still be accepted as "approximating" a simplex.

Matrix 31.3 for the PMR group reveals the original matrix  $\underline{Q}^2$  value to be .89 while the best order  $\underline{Q}^2$  value (Matrix 31.4) was .92, a difference of .03. There were five reversals in the original matrix. The ordered matrix (Matrix 31.4) increased the  $\underline{Q}^2$  value by .03 and left the matrix with only one less reversal.

The  $\underline{Q}^2$  value of .88 for the original RST matrix (Matrix 31.5) was .05 less than the best ordered matrix  $\underline{Q}^2$  value (Matrix 31.6) of .93. The original matrix (Matrix 31.5) had five reversals while the best ordered matrix (31.6) had none.

The  $\underline{Q}^2$  value for the original PNR matrix (Matrix 31.7) was .84. The best  $\underline{Q}^2$  matrix (Matrix 31.8) value was .85, an increase of .01 over the original matrix. This increase of .01 did not result in a better order than the one hypothesized. Also, the best ordered matrix did not decrease the number of reversals in the matrix, both matrices having four reversals.

The simplex results of Table 31 lend support to an hypothesis of an invariate structure between the six scale levels of the ABS-MR.

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Descriptive Term	SER50 sample <sup>3</sup>	EMR50 cample <sup>4</sup>	<u> KCT50 sample</u> 5	PNR82 sample <sup>6</sup>
	123456	1 2 3 4 5 č	1 2 3 4 5 6	123456
	⊍riginal Q <sup>2</sup> = .83	0niginal = -32	original $c^2 = .33$	original $c^2 = .84$
Societal Stereo.	l matrix	l matrix 21.3	1 matrix 31.5	1 matrix 31.7
Societal Norm	2 35 <sub>5111</sub>	2 51 2	2 48	2 36
Personal Moral Ev.	<b>3</b> 20 53	3 25 48	3 10 20	3 23 33
Personal Hypo. Act.	4 18 51 66	4 <u>15</u> <u>13</u> 13	4 01 17 63	4 28 33 67
Personal Feeling	5 11 <u>09</u> 14 <u>01</u>	5 25 05 10 31	5 13 32 58 47	5 <u>29</u> 22 <u>19</u> 23
Personal Action	6 10 <u>01</u> 10 <u>16</u> 31	6 03 <u>20</u> 03 <u>41</u> 36	6 01 05 22 38 <u>11</u>	6 13 15 39 41 17
	Best Q <sup>2</sup> = .88	Heat $x^2 = -2^2$	Pett 2 = .43	kest 6 <sup>2</sup> = .85
Examine each	l matrix	l matrix	l matrix 31.6	1 matrix 31.8
matrix for	2 51 <sub>51.6</sub>	2 48	84 a	2 36 <del></del>
"order" of levels	3 <u>53</u> 66	3 35 57	3 18 39	3 23 38
	4 <u>35</u> 18 20	4 13 13 15	4 10 20 58	4 28 33 67
	5 01 <u>16</u> 10 10	5 10 05 <u>25</u> 31	5 01 17 47 63	5 13 15 39 41
	6 <u>09</u> 01 <u>14</u> <u>11</u> 31	6 03 <u>20 03 41</u> 36	6 01 05 11 22 38 <b></b>	6 <u>29</u> <u>22</u> 19 23 <u>17</u>

<sup>1</sup>Reversals are underlined.

<sup>2</sup>See text for sample description.

 $^{3}$ Critical value of <u>r</u> at .05 level = .27.

<sup>4</sup> critical value of  $\underline{r}$  at .05 level = .27.

 $5_{\text{Critical value of } \underline{r}}$  at .05 level = .27.

 $6_{\text{Critical value of } \underline{r} \text{ at .05 level = .21}}$ .

## Summary

The results of this study indicate that values, knowledge, contact, and certain demographic variables were effective predictors of attitudes toward the mentally retarded. Also, strong support was given to the use of facet analysis in scale construction since the four simplex matrices (Table 31) formed a Guttman simplex as predicted.

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## CHAPTER VI

## SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The thrust of this chapter will be to: review the purpose, methodology and results of the study; discuss the results of the study as they relate to each of the substantive hypotheses; and finally, to posit some implications for further research.

## Summary of the Study

#### Major Purpose

One major aim of this study was to investigate the predominant value orientations and attitudes held by four Mexican-American groups toward the mentally retarded. These included Special Education and Rehabilitation workers, Parents of the Mentally Retarded, Regular School Teachers, and Parents of the Nonretarded. Another purpose was to assess the predictive validity of hypothesized determinants of attitudes, including demographic, socio-Psychological, contactual, and knowledge factors. Although these substantive aims are important, credibility Of the results depends on the adequacy of the measurement base upon which the results stand. In order to research the problems which have been successfully leveled at

attitudinal research in the past, Jordan (1968) has applied and extended the conceptual facet analysis scheme set forth by Guttman.

#### Instrumentation

A research instrument based on facet analysis was developed by Jordan and his students called the Attitude Behavior Scale-Mental Retardation (ABS-MR). This scale consisted of six levels, each corresponding to a certain level of the hypothesized attitude universe. Following the criteria for scale construction set forth by Magnuson (1966, p. 207) those items correlating highest with the total score for each level but having low correlations with each other were included in the final scale (see Appendix B).

Included in the total research with the attitude scale were items that tapped the predictor variables of the study (see Chapter III); which Jordan (1968) has labeled <u>determinants</u> of attitudes--demographic, sociopsychological, contactual, and knowledge.

A pilot study, using the "known group" approach, was conducted to test the predictive ability of the instrument. Except for a few anomalies, the instrument did discriminate between levels as well as being a sound criterion on which to base predictions.

## Design and Analysis Procedures

Using the "known group" method, the present research sampled four groups selected from three Southwest Texas border cities. Each sample contained 50 subjects except the parents of the nonretarded group which had 82 subjects. The proportion of males to females was unequal, there being more females than males. Random selection of subjects was difficult, however, an attempt was made to select randomly in several ways: (a) selecting subjects from several border areas instead of from just one; (b) sampling different sections of the community in the case of the parents of the mentally retarded and parents of the nonretarded; and (c) sampling different schools and retardation facilities in the communities in the case of the special education and rehabilitation worker and regular school teacher groups. The three cities contained a high proportion of Mexican-American persons, 85% of some areas being populated by persons with Spanish surnames.

The four determinants of attitudes were represented . by 29 independent variables (see Table 10) which were intercorrelated with content and intensity scores of the criterion (ABS-MR) across each level (including total scores). This facilitated testing fourteen hypotheses using simple correlations, multiple correlation, and one and two-way analysis of variance statistical techniques.

# Research Findings and Suggestions for Further Research

The results of this study indicate that values, knowledge, contact, and certain demographic variables were effective predictors of attitudes toward the mentally retarded.

The amount of knowledge held by the total sample of Mexican-Americans was predictive of positive attitudes only at the cognitive levels. Amount of knowledge did not result in more positive attitudes at the feeling and action level.

The contact variables, as a set, were predictive of positive attitudes toward the retarded. More specifically, enjoyment of contact, alternative rewarding experiences, and ease of avoidance of contact were most predictive of positive attitudes. Amount of contact <u>per se</u> was not indicative of positive attitudes. In some cases amount of contact was predictive of negative attitudes.

Change orientation was found to be a significant predictor of positive attitudes toward the retarded. Willingness to change, acceptance of industrial innovations, and preference for a non-structured orientation were highly predictive of positive attitudes toward the mentally retarded at all levels of the ABS-MR.

Of the demographic variables, only age was predictive of positive attitudes toward the retarded and then only at the stereotypic level.

Strong support was given to the use of facet analysis in scale construction since the four simplex matrices formed a Guttman Simplex as predicted. This finding also lends support to the multidimensional structure of attitudes.

## Discussion

The following section deals with a summary of each of the substantive hypotheses as well as a discussion of unexpected findings.

## Relating Attitudes and Values

<u>H-1</u>.--The value variable of "Efficacy" purported to measure the amount of control one feels he has over his environment. The failure of the attitudes of the four Mexican-American groups to correlate significantly with the Efficacy scale (content) led to the rejection of the research hypothesis. The responses of the total group fell in the middle of the continuum of scores on the scale. This may reflect an important finding in terms of a change from a fatalistic outlook on life and the lack of control over it to a movement toward the Center of the environmental control continuum.

In relation to intensity responses to both the ABS-MR and the Life Situations scales (see Tables 5 to 9 in Appendix A) it is obvious that there was a high degree Of certainty between how sure the respondents were of their attitudes and how confident they were of how much control they had over their environment at this point in time. This seems to reflect a certain realistic sense of expectancy on the part of Mexican-Americans and a readiness or openness to change. In view of the fact that the Mexican-American, like the American Black, has been exploited and literally forgotten (Rubel, 1966; Mittelbach, 1967), the results of H-1 are in a "positive" direction even though the hypothesis was not confirmed.

## Relating Attitudes and Knowledge

<u>H-2</u>.--The field theory of Lewin (1935) and the work of such balance or consistency theorists such as Heider (1946), Osgood and Tannenbaum (1955), Festinger (1957), Rokeach (1960), and Adorno (1950) deal with the relationship between amount of knowledge and attitudes. The more knowledge a person has about a given object is often posited to be indicative of or be a determining factor in the quality of his attitude toward that object. In the language of balance theory, the less closed a person's Cognitive structures, the more open to information he will be. Lewin might say the less rigid or the more permeable a person's perceptual boundaries the more open he will be to varied types of information. In the present Study, the data give support to H-2 at certain attitude levels. This type of finding points up the need for increased efforts to disseminate information concerning mental retardation as well as other disability categories.

An inspection of the individual levels of the ABS-MR in relation to knowledge reveals the necessity for caution in interpreting positive findings, and again, gives added strength to the use of facet analysis. Factual knowledge is cognitive in nature and does not necessarily result in positive attitudes at the behavioral or action level. The levels of the ABS-MR that were significant in relation to knowledge were levels 1, 2, 3, and 4. These levels are more cognitive in nature and less personal or behavioral. This confirms Jordan's (1969) contention that amount of knowledge per se does not necessarily lead to positive action. The lack of significant relationships between attitude favorableness and knowledge for the PMR and the presence of positive significant relationships between knowledge and the intensity scores for levels 4, 5, and 6, and knowledge gives credence to Jordan's assertion that attitudes have an affective-value-contactual base rather than a cognitiveknowledge one.

## Relating Attitudes and Contact

<u>H-3 and 4</u>.--As was expected, the more contact a person has with the mentally retarded the more intense or certain that person will be about his attitudes toward
the mentally retarded. This interpretation is based on the MR contact by total ABS-MR attitude intensity comparison for the total group.

Inspection of the correlations within individual groups reveals contradictory findings. Those groups having the most MR contact have significant negative correlations while those groups having less MR contact have significant correlations in the predicted direction. SER are less certain of their actual behavior in relation to MR contact while PMR are not sure of the attitudes toward their children held by others. Conversely, RST and PNR are extremely certain of their actual behavior with increased contact with the mentally retarded. The results of H-5 may shed some light on this finding when other contact variables besides amount of contact are taken into consideration. H-3 and 4 have nothing to do with the effects of contact on attitudes themselves but are concerned with the relationship between contact and attitude certainty (intensity). The findings seem to say that increased involvement or exposure to the mentally retarded, as far as SER and PMR are concerned, may result in either self-questioning or what Rollo May calls protective a-pathos (May, 1969). While on the surface the results seem disconcerting, they do lend support to the notion that persons who are involved with the retarded are more flexible or less dogmatic (less certain) in their beliefs (Rokeach, 1960).

<u>H-5</u>.--The use of multiple correlation allowed a comparison between all contact variables taken together and the six levels of the ABS-MR. Also, the partial correlations show the effects of each individual contact variable on the ABS-MR.

The findings presented in Chapter V give added weight to the assertion that over-all contact is an important determinant of attitudes. Contact is a behavioral indicant and the sensitivity or ability of the ABS-MR to tap this behavioral determinant is pointed out in Tables 15-17 by the fact that, based on multiple R's for the total group, the more personally active or behavioral action levels of the ABS-MR were significantly related to contact.

The multiple R's between the ABS-MR and contact for individual groups reveals some interesting findings. The SER and PMR had more favorable personal feeling or action attitudes in relation to all elements of the contact variable. In contrast to this, the RST and PNR had more favorable stereotypic attitudes in relation to all elements of the contact variable. Those groups obviously more involved with the retarded have more positive personal behavioral attitudes while those groups less personally involved have more positive stereotypic attitudes. Again, the ability of ABS-MR to discriminate between the level or quality of attitudes held by different groups is given further support.

A perusal of the partial correlations reveals the varying influence of different specific contact variables on different levels of the ABS-MR. High frequency of contact was not associated with favorable attitudes toward the retarded, in fact, in the case of the SER, PMR, and total sample, the relationship was significantly negative at the more personally oriented levels of the ABS-MR. Evidently contact alone is not conducive to favorable attitudes. The contact variables most conducive to and predictive of favorable attitudes were alternative rewarding opportunities, ease of avoidance, and enjoyment of the contact (Tables 15-19). Favorable attitudes toward the mentally retarded for this sample of Mexican-Americans is a function of the perceived voluntariness of the contact, the availability of alternative rewarding opportunities, and the enjoyment of the contact no matter how frequent.

More than any other variable, the elements making up the contact variable point up the complexity of attitude development and the necessity for assessing more specific contactual elements besides frequency of contact.

## Relating Attitudes and Religiosity

<u>H-6</u>.--The basis or rationale for this directional hypothesis was that persons whose belief systems were more rigid and dogmatic would be less flexible, less open to a

wider variety of stimuli that might produce dissonance, and thus, more prone to having negative attitudes to a wider variety of objects. As might be expected, the group farthest removed from the retarded, PNR, had more negative personal feeling level attitudes in relation to their high stated importance of religion.

# Relating Attitudes and Demographic Variables

<u>H-7</u>.--Regular school teachers were the only group in accord with H-7. This may be because the RST group had more education than any other group. Jordan (1968) found this to be true in his 11 nation study. The SER group in the present study contained 20 persons with less than a college education which may account for the lack of a significant positive finding for the SER group.

More difficult to interpret is the negative finding for the PNR group. This result implies that amount of education <u>per se</u> is not necessarily conducive to positive attitudes toward the mentally retarded. One explanation that could account for this inverse relationship is that the PNR group, because they are farthest removed from the retarded, may be more threatened by the possibility of mental retardation.

<u>H-8</u>.--The finding that increasing age is associated with more positive stereotypic attitudes replicates the findings of Jordan (1968, 1969). The older a person becomes is related to a greater awareness of what others believe to be true about the retarded but has little effect on the actions or behaviors of that person toward the retarded. The implication this may have for local, state, and national support of programs for the mentally retarded is obvious. An answer to this dilemma should come from special education and rehabilitation workers who, as the results show (Table 22), are aware of the attitudes of others toward the retarded and could use this sensitivity in developing action oriented programs.

<u>H-9</u>.--The hypothesis that <u>women</u> will score higher on positive attitudes toward the mentally retarded than men was rejected. Opposite to that predicted was the finding that Mexican-American men had more positive stereotypic attitudes than Mexican-American women. One explanation that has merit is the dominance of the Mexican-American male over the Mexican-American female.

Mexican-American males have a great deal more freedom of movement than Mexican-American females. The fact that males had greater positive societal stereotypic attitudes can be accounted for by their greater contact with persons outside the home. Similarity of male and female attitudes on more behavioral levels could be accounted for by the assimilation of male attitudes by the female.

H-9 grew out of the repeated finding by Jordan (1968) that women's attitudes toward the disabled were more

positive than men's attitudes. Jordan (1968) found in his cross-cultural study that the attitudes of Peruvian males toward the disabled were more positive than the attitudes of Peruvian females. Cultural similarities between Peruvians and Mexican-Americans might account for the propensity of the two groups to be alike.

# Relating Attitudes and Change Orientation

<u>H-10</u>.--Change orientation was significantly positively correlated with the attitudes of Mexican-Americans toward the mentally retarded. This finding gives credence to the hypothesis that the attitudes a person holds toward change in himself and the external environment are a useful predictor of that person's attitudes toward the mentally retarded as well as a predictor of attitudes toward a broad array of attitude objects.

Change orientation was significantly related to levels 3, 5, and 6 of the ABS-MR for the total sample. These levels are on the behavioral end of the attitude continuum which indicates that change orientation is a good predictor of a person's feelings and behavior toward the mentally retarded.

Self change, child rearing, and automation were significant indicants of positive personal-behavioral attitudes toward the mentally retarded for the total sample. These findings support the theory that persons who are

flexible, and open to new experiences and innovations will have more positive attitudes toward a wider variety of objects or events in their environment.

Birth control was a strong predictor of negative behavioral attitudes toward the retarded for the total sample. The finding may indicate that this sample of Mexican-Americans feels that one answer to mental retardation is family planning. This finding is even more significant in view of the fact that the major religion for Mexican-Americans is Catholicism. A comparison of the sexes shows females were in favor of birth control while males felt "it is usually wrong" to practice birth control (Table 10, Appendix A). Psychoanalytically, birth control could be considered a threat to male masculinity by imposing limitations on him. The Mexican-American family is strongly patriarchal and birth control would give women symbolic, if not actual, control in the marriage.

Perceived desirability of regular political leadership change and rule non-adherence were significantly positively related to attitudes toward the retarded for the SER group. These change orientation variables reflect a sense of personal autonomy and independence; thus a non-structured orientation was predictive of positive attitudes toward the retarded at the personal feeling and action levels. Being in favor of birth control was predictive of negative feeling attitudes toward the

retarded for the SER group. This finding may reflect a realistic awareness on the part of the SER group of the contribution that birth control methods could have in lowering the incidence of retardation, especially in families likely to have a retarded child.

Change orientation was predictive of positive personal feeling attitudes toward the retarded for the PMR group. This relationship means the more open and acceptant a parent of a retardate is toward change in himself and his environment, the more acceptant and positive will be his attitudes toward his child. Openness to change would correspond to Wright's (1960) concept of asset orientation. A person with an asset orientation would perceive the potential and capacity of the retarded rather than generalizing the debilitating effects of retardation.

Preference for rule non-adherence resulted in positive stereotypic and feeling level attitudes toward the retarded for the PMR group. The "adherence to rules" variable measures a person's reported perception of whether he finds it easier to follow rules or do things on his Own. This non-adherence orientation of parents of the retarded allows them a flexibility and an openness to new innovations that should profit their retarded child and themselves.

Belief in birth control and political leadership change were predictive of negative PMR attitudes toward

the retarded. Parents of the retarded agreed that it is "usually right" to practice birth control and change political leaders, even if they are doing a good job.

The relationship between birth control and attitudes for the PMR group may reflect a realistic awareness of the influence birth control could have in lowering the incidence of mental retardation in situations where the probability of retardation is great. Again it must be noted that the PMR sample was predominantly Catholic and agreement with birth control practices is a sharp deviation from Catholic dogma.

An explanation for the negative correlation between agreement with changes in political leadership and negative action attitudes is difficult and speculative. However, such a finding may reflect the dissatisfaction of the PMR group with federal programs in the several border areas sampled and the realization that political inaction may be contributing to the continuation of ineffectual programs.

Change orientation was a significant predictor of positive personal moral attitudes toward the mentally retarded for the RST group. Regular school teachers who feel they can change themselves and their environment also feel positively toward the mentally retarded.

Regular school teachers who feel automation has a positive impact on society and who have a non-rule

adherence, independent orientation have positive personal moral and feeling attitudes toward the mentally deficient.

Of the four groups, the PNR group had the greatest number of significant comparisons between change orientation and attitudes. Of the 49 comparisons (Table 28), 13 comparisons were significant.

Change orientation was significantly positively correlated to levels 3, 4, 6, and the total of the ABS-MR. These levels are on the behavioral end of the attitude continuum which means the way parents of the nonretarded perceive change is a good predictor of their behavior toward the retarded.

The partial correlations show that political leadership was the only predictor unrelated to any level of the ABS-MR for parents of the nonretarded. Willingness to change, acceptance of industrial innovations, preference for a non-structured orientation, and acceptance of birth control were predictive of positive attitudes toward the mentally retarded at all levels of the ABS-ME for the PNR.

## Relating Attitudes to Opinions on Educational Aid and Planning

<u>H-11</u>.--Agreement with government aid to education was predictive of positive attitudes toward the mentally retarded. Those border areas sampled were in dire need of federal assistance. The responses made by the four

groups reflect an awareness of the educational, social, economic, and political gains that can result from federal support.

Studies have shown (Moore and Mittelbach, 1966; Grebler, 1967) that in 1960 the average education level attained for Mexican-Americans in the Southwest was four years. Those same studies as well as others (Fogel, 1967; Mittelbach, 1967) indicate the average grade level attained is rising due to federal programs initiated during the late 1960's.

The apparent readiness of this Mexican-American sample to accept government aid reflects a movement from a traditional sub-culture to a higher level of modernity. In several papers dealing with attitudes and level of modernity, Jordan (1964, 1968) emphasized the positive relationship between greater levels of modernity and more positive attitudes toward the handicapped.

<u>H-12</u>.--Agreement with centralized government planning of education was significantly positively related to favorable personal hypothetical and personal feeling attitudes toward the mentally retarded for parents of the retarded and regular school teachers. The rationale for this hypothesis was that centralized planning is more progressive, imposes rigorous standards, and has a greater economic and experiential base from which educational innovations can be developed and implemented. Agreement with centralized educational planning then would reflect an awareness of the positive influence such planning could have on the lives of the retarded.

The mean response of special education and rehabilitation workers to centralized educational planning (Table 10, Appendix A) was the belief that such planning should be handled by the city or local authorities. The relationship between educational planning and the personal feeling level of the ABS-MR was significantly negative. This finding may reflect the desire of SER workers to get out from under the pressure of state and federally funded programs. All SER institutions sampled were funded to some degree by the federal government. One characteristic of a federally funded program is the demand for constant evaluation and improvement in programs and personnel. The desire of the SER for local planning could very well result in less attention to special education programs because the thrust behind such programs has come from federal agencies. Such a finding, if not a chance occurrence, is ominous as it relates to meeting the needs of Mexican-American mentally retarded children in the three Southwest Texas cities sampled.

# Relating Attitudes and Group Membership

<u>H-13</u>.--The hypothesis that SER>PMR>RST>PNR was rejected. The results showed the order of favorableness to

be PMR>SER>RST>PNR, the reversal being between PMR and SER. Hypothesis 13 grew out of the eleven nation study by Jordan (1968) who found the SER group most favorable in their attitudes toward the physically disabled. Jordan's study did not contain a sample from the parents of the retarded. The presence of a FMR group in his study may have resulted in a change in the ordering of his groups.

The present study should have anticipated the above Ordering of group favorableness of attitudes toward the retarded. Parents of the retarded are more personally involved with the retarded, thus, it would be expected they would be more sensitive to the positive attitudes Of <u>others</u> (stereotypic level), more aware of what <u>they</u> believe the retarded <u>ought</u> to be able to do (moral evaluative), more positive in what <u>they would</u> do in situations with the retarded (hypothetical level), more positive in their <u>affect</u> toward the retarded (feeling level), and more Positive in their <u>behavior</u> toward the retarded (action level).

As the levels of the ABS-MR became more action oriented, the significant differences between groups increased to a point that the personal action level (Variable 6, Table 23) significantly discriminated the degree of attitude positiveness of all four groups. The ABS-MR intensity Variables (Variables 8-14, Table 23) reinforce the above

finding by showing the PMR group to be more certain, sure, or intense in their attitudes toward the retarded.

The findings resulting from H-13 indicate that parents of mentally retarded children have a great deal to offer to special education and rehabilitation workers in particular, as well as to regular school teachers and parents of the nonretarded. The contribution of the PMR group may be a consultative one whereby their views are considered when decisions or programs affecting the mentally retarded are developed.

One important finding resulting from H-13 was the ability of the ABS-MR to differentiate between groups of persons with varied backgrounds. The six scale levels are obviously tapping different aspects of a person's attitude toward the attitude object; the retarded.

### <u>Relating Attitudes and</u> <u>Multidimensionality</u>

<u>H-14</u>.--The matrices displayed in Table 31, arranged according to Jordan's (1968) six level theory, reveal the Correlations between the six levels of the ABS-MR form a Guttman simplex for each group sampled. Confirmation of H-14 was arrived at using visual and  $\underline{Q}^2$  analysis (Kaiser, 1962).

Attitude research closely related to this study relied on visual inspection as to the confirmation or disconfirmation of the multidimensional quality of attitudes

(Erb, 1969; Hamersma, 1969; Jordan, 1968). Visual inspection focused on whether or not the hypothesized attitude levels closest together correlated higher than levels farther apart (contiguity hypothesis). Visual inspection of Table 31 shows, with a few exceptions for each group, that those levels closest together do correlate higher than levels farther apart.

The weakness of using "visual tests" of relationship to answer research questions is apparent in that visual inspection cannot take into account the influence or effects of other variables.

One method of simplex analysis developed by Kaiser (1962) was recently applied by Maierle (1969) in a methodological study of Guttman facet analysis. Maierle attempted to determine if items used in each scale corresponding to an attitude level actually resulted in a progression or if such a progression could be accounted for by response set or order of administration. Maierle used Kaiser's method of simplex analysis which takes a simplex and generates the best empirically possible simplex ap-**Proximation** by "sorting" or reordering the levels. The Original hypothesized simplex and the best ordered simplex are assigned a descriptive statistic, " $Q^2$ ," with a range Of 0.00 to 1.00. Maierle administered the levels randomly and in the hypothesized six-scale order. Maierle's analysis revealed that the  $Q^2$  values for the randomly

administered, randomly ordered matrices were less than the  $Q^2$  values for hypothetically ordered matrices.

The  $\underline{Q}^2$  value obtained for each group (Table 31) in the present study indicates there is little difference between the hypothesized level order and the best simplex approximation.

The  $\underline{Q}^2$  values for the four matrices, coupled with visual affirmation, give added strength to the hypothesis that the ABS-MR scale levels do form a Guttman simplex for each of the four Mexican-American groups. This finding also partially answers the question of whether or not order of administration and response set could be plausible competing hypotheses. Confirmation of H-14 can be viewed as a measure of construct validity for the ABS-MR and support for the use of facet theory in scale construction.

## Recommendation for Further Research

### Cross-cultural Research

The data collected in the present study along with Similar data collected in other cultures should be combined in a larger cross-cultural study aimed at determining whether or not: (a) the ABS-MR is a useful criterion When used cross-culturally; (b) equivalency of meaning and relevancy are problems when the ABS-MR is used in diverse Cultural settings; and (c) knowledge, value, contact and demographic variables are predictive cross-culturally of attitudes toward mental retardation.

#### Attitude Change Experiments

The ABS-MR should be used as a criterion in a study designed to determine if some experimentally manipulated treatment is able to change attitudes of randomly selected persons toward the mentally retarded. Such a study could use a posttest-only control group design:

### Sampling

Although random subject selection and assignment was attempted in the present study, such an effort was not as successful as would have been desired. Survey research of the present type does not lend itself to strictly controlled randomization, thus generalizations of results are always suspect. Future cross-cultural attitude studies should pay particular attention to randomization procedures.

Problems in cross- or sub-cultural subject selection may be avoided or lessened if the researcher follows some Of the recommendations below:

 Notify local authorities well in advance of research plans and experimental subject needs.

2. Be <u>very</u> familiar with the area to be researched (language competency is invaluable).

3. Attempt to come with references from persons known by the host country or area leaders (increased Credibility).

4. Make research needs clear and to the point in order to facilitate data collection.

5. Conduct oneself in such a manner that further research within the locality will be permitted. Too often research opportunities in other countries are hindered by researchers who seem to be ignorant of simple human relations techniques.

Further attitude research using the ABS-MR should select as large an N for each experimental group as possible. A larger N in the present study might have contributed to more significant substantive findings.

## Statistical Analysis

Although Kaiser's  $\underline{Q}^2$  is an improvement over visual inspection of simplex approximation, a more rigorous test of simplex approximation is needed. More specifically, Maierle (1969) states that greater attention should be given to such factors as the effects of correlation magnitude on the simplex and the effect of equal and unequal spacings among simplex matrix entries.

## Replication

The present study could be replicated with ease in Several other border areas of Texas with a high proportion of Mexican-Americans. This would facilitate testing the Credibility of the findings in the present study as well A: testing the stability and dependability of the ABS-MR.

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APPENDICES

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# APPENDIX A

# STATISTICAL MATERIAL

<u></u>	Varia	uble			SE	<u>SR</u>					PI	1 <u>R</u>		
	·		N	Male M	SD	<u>N</u>	emal M	<u>e</u> SD	N	$\frac{Male}{M}$	SD	<u>N</u>	emal M	e SD
Attitude Content	1. 2. 3. 4. 5. 6. 7.	Stereotype Normative Moral Eval. hypothetical Feeling Action Total	11 11 11 11 11 11 11	34 37 47 45 38 242	3 5 10 6 7 6 22	39 39 39 39 39 39 39 39	31 34 46 43 34 233	4 5666 19	17 17 17 17 17 17	37 41 48 50 44 40 261	6 8 5 4 6 21	33 33 33 33 33 33 33 33 33	34 40 47 49 42 40 250	7 9 4 7 7 23
nttitude Intensity	8. 10. 11. 12. 13. 14.	Stereotype Normative Moral Eval. Hypothetical Feeling Action Total	11 11 11 11 11 11 11	40 42 45 46 51 46 275	$     10 \\     10 \\     14 \\     14 \\     10 \\     11 \\     61   $	39 39 39 39 39 39 39 39	43 40 45 47 50 47 267	9 11 9 10 11 10 46	17 17 17 17 19 19 17	47 45 50 49 51 46 287	1 8 7 6 8 9 32	33 33 33 33 33 33 33 33 33	47 46 48 48 48 47 284	10 10 8 9 11 11 41
Value	15. 16.	Efficacy-Cont.	11 11	24 29	3 7	39 39	24 28	3 4	17 17	24 29	3 4	33 33	24 27	3 4
Knowledge	el7.	MR Knowledge	11	17	2	30	16	3	17	18	3	33	17	3
Contact	18. 19. 20. 21. 22. 23.	NF Amount HP Avoid. HF Income HF Alter. MR Amount HR Enjey.	11 11 11 11 11 11	3 4 3 4 4 4	1 1 1 1 2	30 30 30 30 30 30 30 30 30 30 30 30 30 3	3 4 3 4 4 4	1 1 1 1 1 1	17 17 17 17 17 17	2 4 1 2 4	1 1 0 2 1	33 33 33 33 33 33 33	2 4 1 2 5	1 0 1 1
Demog <b>ra-</b> phic	24. 25. 26. 27.	Age Educ. Amount Relig. 1mp. Relig. Adner.	11 11 11 11	3 4 5 5	1 1 1 1	39 39 39 39	2 4 4 4	1 1 1 1	17 17 17 17	4 3 4 4	1 1 1 1	33 33 33 33 33	3 3 4 4	1 1 1 1
change Orient.	23. MR Enjoy. emogra- 24. Age nic 25. Educ. Amount 26. Relig. Imp. 27. Relig. Adner nange 28. Self Change rient. 29. Child Rearir 30. Birth Contro 31. Automation 32. Folit. Lead. 23. MR Endother		11 11 11 11 11 11	3 3 2 3 3 3 3	1 1 1 1 1 1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 1 1 1 1 1	17 17 17 17 17 17	2 3 2 3 3 2	1 1 1 1 1 1	33 33 33 33 33 33 33	2 3 3 3 3 3 2	1 1 1 1 1
Educa- tion	34. 35. 36.	Local Aid Federal Aid Ed. Planning	11 11 11	3 3 3	1 1 0	39 39 39	3 3 3	1 1 · 1	17 17 17	333	1 1 1	33 33 33	3 3 3	1 1 1

TABLE A.1.--N's, means and standard deviations for the four Mexican-American sample groups by sex.

$\frac{RST}{R}$		Groups Totaled
N M SD N M SD	N M SD N M SD	N M SD N M SD
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
19 25 3 31 23 3 19 24 4 31 27 5	2) 23 3 53 23 3 2) 20 5 53 28 4	76 24 3 156 23 3 76 29 5 156 28 4
<u>    19   15    2     31   16    3       </u>	29 16 4 53 17 3	76 16 4 156 17 3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	29       2       1       53       2       2         29       3       1       50       3       1         29       3       1       53       3       1         29       3       1       53       3       1         29       3       1       53       3       1         29       2       1       53       3       1         29       2       1       53       3       1         29       2       1       53       3       1         29       3       1       46       3       1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
19     3     1     31     3     1       19     3     1     31     3     1       19     2     1     31     3     1	29       3       1       51       3       1         29       3       1       53       3       1         29       3       1       53       3       1         29       3       53       3       1	76       3       1       154       3       1         76       3       1       156       3       1         76       3       1       156       3       1         76       3       1       156       3       1

		Recentlype	
-			4,576
,		Nomative	
,		Moral Boal.	
•	CONTRACT OF	Rypothet ical	4,496 8,184 4,179
	30041	Publing	
	ų		
٠		Action	
,		fotal	
•		Stereotype	8,127 3,074 4,127 4,130 4,028 48,882 4,897 48 58 48 48 49 49 49 49 49 59 4,235 4,249 1,235 3,023 4,034 4,43 4,144
,		Bernstive	
		Berni Brai	1.102 1.731 1.122 1.107 1.107 1.107 1.107 1.107 1.107 1.109
"	E		
"		Rypothetical	<b>@</b>
u		Peeling	
13		Action	
		Total	
-			
15	1	Efficacy-Cost.	10 20 10 10 10 10 10 10 10 10 10 10 10 10 10
-	Ľ	Rffierry-Int.	
17		12 Revelates	0,100 0,220 3,010 -0,000 1,120 0,000 1,100 0,000 0,000 0,000 0,000 0,000 0,000 0,000 -0,000 -0,000 -0,000 -0,00 0,100 0,200 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 -0,000 -0,000 -0,000 -0,000 0,100 0,200 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 -0,000 -0,000 -0,000 -0,000
-	$\uparrow$	and the second	
1,9		- Arrold	
20		<b>17</b> Lansa	1.409 6.724 6.607 6.524 6.611 (11) 4.206 6.629 6.603 6.603 6.617 6.663 6.526 6.526 6.526 6.526 6.525 6.525 6.525 (1.607 6.143 6.616 6.616 6.607 6.623 6.603 6.601 6.516 6.637 6.603 6.614 6.626 6.607 6.516 6.516 6.516 6.525
21	4	F Alter	
	8		(1,1) (1,1)
-			- +,114 , 1,152 , 1,122 , 1,171 , 1,315 , 1,593 , 1,392 , 1,14 , 10,171 , 1,147 , 1,142 , 1,271 , 1,924 , 1,314 , 1,941 , 1,254 , 1,25
13		a lajoy	
24	1	<b>her</b>	
25	2		
26	1 al	Roligion Impor.	
			0,147 -01,173 -0,146 -0,038 0,055 0,329 0,010 0,016 0,016 0,012 0,000 0,028 0,280 0,0000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,00
27		leligion Adher.	-0.0 <sup>5</sup> 1 -0.1 <sup>7</sup> 2 -0.1 <sup>2</sup> 3 -0.0 <sup>5</sup> 1 -0.0 <sup>4</sup> 1 -0.0 <sup>4</sup> 1 -0.0 <sup>4</sup> 1 -0.0 <sup>4</sup> 1 -0.1 <sup>5</sup> 2 -0.1 <sup>5</sup> 4 -0.1 <sup>5</sup> 4 -0.1 <sup>7</sup> 3 -0.1 <sup>2</sup> 4 -0.1 <sup>5</sup> 3 -0.0 <sup>4</sup> 1 -0.0 <sup>4</sup> 4 -0.
28	+	Self Change	
29		Dild Rearing	- 1.777 1.591 1.227 1.20 1.221 1.211 1.213 1.213 1.213 1.213 1.213 1.213 1.213 1.213 1.213 1.213 1.214 1.214 1. 1.144 1.1.14 1.532 1.134 1.129 1.139 1.139 1.139 1.139 1.139 1.139 1.139 1.132 1.139 1.149 1.149 1.139 1.139 1.
	NTI OF	North Control	10 18 18 18 18 19 19 19 19 19 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10
-			- 0,121 - 0,100 - 0,135 - 0,115 - 0,154 - 0,107 - 0,127 - 0,107 - 0,107 - 0,120 - 0,100 - 0,177 - 0,100 - 0,224 - 0,235 - 0,225 - 0,2
n	8	Astonation	0,115 0,004 0,032 0,124 0,004 -0,525 0,126 0,005 0,100 0,014 -0,019 0,015 0,123 0,004 0,000 0,010 0,000 0,0
32		Political Land.	
u		mle Affer.	
-		logal Aid	0.0 00 00 00 00 00 00 00 00 00 00 00 00
			-9,178 8,651 9,131 44,889 -9,584 8,689 -0,552 8,698 8,446 8,148 8,519 6,828 8,189 6,837 -0,584 8,685 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
35	DATE	Federal MA	. 0,004 -0,000 0,207 0,077 0,0444 0,000 0,100 0,100 0,000 0,000 00,075 00,020 0,100 0,000
ж	1	24, Florening	-0,104 -0,1070,109 0,003 0,170 -0,290 0,100 0,007 0,071 0,013 0,010 0,000 0,000 0,010 0,010 0,010 0,010 0,010
			- 1.127 0.147 0.146 0.727 0.145 0.727 0.151 0.751 0.751 0.751 0.751 0.751 0.751 0.755 0.755 0.755
	VA.	1-101-1020	ATTITUDE CONTERT         ATTITUDE DESEMITY         PALME           L         2         3         4         5         6         7         6         9         10         11         12         13         14         13         16

TABLE A.2.--Correlation matrix for the SER<sup>1</sup> graduate student sample.



		$\square$	
1		Stereotype	
2		Normative	0,437 533
		Horal Evel.	
	Ĩ		
1		Eypothetical	
3	1111	Pooling	
6		Action	0.41.4 3.442 0.444 0.193 0.223 013 033 033 044 043 3.722 0.724 0.724 0.7160 0.725 0.724 0
,		Total	1,511 1,630 1,601 0,724 1,503 4,373 <u>A11</u> <u>610</u>
•		Stareotype	
,		Normative	
10		Moral Eval.	$\begin{bmatrix} 1, 1, 2 \\ 0, 1, 0 \\ 0,$
	LI SU	Remethent ( on )	
	E	-,,,	
12	mitte	Peoling	
13		Action	
14		Total	
15		EfficacyCont.	6.224 - 5.487 - 6.477 - 6.137 - 6.484 - 6.484 - 6.148 - 6.143 - 6.143 - 6.433 - 6.433 - 6.243 - 6.433 - 6.443 6.534 - 6.427 - 6.47 - 6.439 - 6.439 - 6.439 - 6.437 - 6.740 - 6.433 - 6.742 - 6.340 - 6.340 - 6.340
16	-	EfficacyInt.	
17	100	ME Faculedge	4.046 7.037 4.046 4.031 4.077 9.001 4.046 4.070 9.007 4.037 4.070 4.046 9.027 4.021 4.046 4.037 4.031
1.	<u>u</u>	IP Amount	
19		EP Avoid	4,641 1,603 4,699 4,699 4,091 6,104 1,091 6,102 4,011 4,013 4,010 4,013 6,024 1,021 4,010 1,046 1,047 4,021
20	ţ	EP Income	-1,002 -2,224 -0,124 -2,001 -0,059 -0,147 -0,100 -0,147 -0,400 -0,124 -0,01 -0,134 -0,101 -0,017 -0,104 -0,01 -3,040 -3,024 -0,124 -3,104 -0,059 -0,147 -0,104 -0,147 -0,404 -0,134 -0,141 -0,
21	CO	IP Alter	-0.209 1.300 (5.13) 6.126 1.301 (5.10) 1.221 1.379 1.379 1.477 1.421 1.419 1.419 1.417 1.423 1.423 1.423 1.424 -0.007 1.431 1.414 1.411 1.411 1.414 1.417 1.413 1.417 1.418 1.417 1.418 1.411 1.417 1.413 1.419 1.419
22		RR Anount	
23		KR Enjoy	
-			
	J		6,221 1,741 6,428 2,149 6,127 1,215 6,499 1,551 6,233 2,554 6,155 6,468 6,497 6,478 6,497 6,171 612 612 612 612 612 612 1,21 1,21 1,21 1
25	- March	Educ. Amount	6,013 1,726 6,094 5,064 -2,014 -6,217 9,006 1,057 -0,013 5,033 6,066 9,022 -0,171 -0,097 6,118 7,187 012 032 042 012 0412 0412 0412 0412 0412 0412
26	2	Poligion Impor.	4,243 3,066 4,466 4,213 26,17 6,17 6,17 1,17 5,17 5,17 9,17 9,17 9,17 9,17 9,17 9,17 9,17 9
27		Boligion Adher.	
20		Self Change	1.007 0.009 0.000 0.000 0.000 0.000 0.007 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
29		Child Bearing	(1.15) 1.30 (1.11) (1.12) (1.11) (1.11) (1.11) 1.12 (1.11) 1.131 1.311 1.313 1.313 1.315 1
30	IT ON	Birth Control	1.991 1.997 (1.991 1.991 1.997 1.997 1.999 1.99 1.99
	CLIGITS	Astonation	
	, i		
"	8	POILLICEI LOOD.	1,924 -4,124 -4,126 1,921 1,947 1,427 9,129 4,039 41,933 41,969 41,933 41,947 1,126 -4,153 9,164 9,154 919 -419 -419 -419 -419 -419 -419 -419 -
33		Bule Adher.	-9,07 4,012 9,027 4,045 9,366 4,075 9,06 9,011 9,02 9,170 9,187 9,194 1,003 9,107 4,00 0,00 0,00 0,00 0,00 0,00 0,00 0,00
34		Local Aid	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
35	OCASTO	Pederal Aid	
36	8	Ed. Planning	
		LABLER	(1,247 1,248 1,247 1,444 1,344 1,44 (1,44 1,446 1,791 1,595 1,595 1,595 1,595 1,495
ANG	-10-10	200	ATTITUDE INTERSITY         VALUE           1         2         3         4         5         6         7         8         10         11         12         13         14

TABLE A.3.--Correlation matrix for the M.S.U. sophomore education student sample.



LOGE			c	ONTACT			DI	ENCORAPH	10			CHANGE	DRIENTAT:				EDUC	NOTTA
17	18 19 20 21 22 23						24	25	26	27	28	29	30	31	32	33	34	35
													-				ABS	MR-ED200

		$\square$																
1		Storestype																
1		Bornative	.217	~														
,	F	Meral Beal.	0.112	9 ۱.3 <u>14</u>														
	80		1,223	<b>ه</b> ی	6.300													
1.	ATT:TA	Bypothotinal	<u>بن</u> ے ا	، ش	Ċ	•												
,	-	Feeling	بن ا	יייי פ	<b></b>		>											
•		Action	 	0.110 0.110	1.151 			>										
,		Total					<u> </u>	•										
-		Statestype	-0.127	1.65	1.055	1.11	1.18	1.11	8,879 573									
,		Bornative		1,114	4, <b>15</b> 573	1,148 523	1.137		•.••7 523	0.478 383								
			0.99 -0,970	·	<b>0</b> 0.177 0,197	1,274 1,145					•,•35							
		Marti Mal,		<b>7</b>	Ċ	)	•		<u>ښ</u> ر	Ē	Ċ	•						
"		Rypothetical	Ċ	D	983 8.318	· 523	593 0,472	573 4,443	•.• <u>575</u> •.21•	٣	) C	0	,					
12	H	Pooling	-8,056 923 8,28	8,042 573 3 8,357	8,879 573 8,876			·····		J.	<u> </u>	÷	<b>S</b>	,				
13		Action	 النام	 روز بن ا		1.307 1.100				1.13	····· ······		0,056 573 0,199	·	7			
м		Botal	.1.117		1.14						<u>```</u>							
13		EfficacyCont.	¢.000 573	1.152	•.••	1.171			•					•. • 7 •	1,111	1.12		
16	<b>TOAN</b>	Ifficer-lat.	••.104 ••.104 571	1.040 573	4.171 4.137	0,103 0,138 923		) <u></u>					0,105 0,504 523	0,073 0,527	····		•.331 •.331	
-	-			<b>D</b> 1.331	0.403 0.403	4.414 -4,997	0.159 -0.029	0.307 -0.117	0.412 ••.•77 •				1.114	) <u>(</u>	<u>&gt; 1</u>	·1.1.3	1.131	1.049
	. A a	WE Resvieige	523 6,05	573 0.477	973 8,917 7 484	923 9,113	8,767	<u> </u>	<b>,</b> ,	<u></u>	, 0,195	573 1,994	923 0,927	\$?} 0,707	<u> </u>	<b>7 1 1 1 1 1 1 1 1 1 1</b>	573	573 8.584
"		a harrant	493	473	æ		•		-	0.017	493 9.129	1.257	493 0.322	493 8.118	<b></b>	<u>س</u>		
5		W Arris	P.853 401 9.23	-1,140 470 7,783	478 478 8.127	· · · · · · · · · · · · · · · · · · ·	-*. •••	0.000 0.004	1.510 -	*.***	•.•••	0,021 - 490 0,645	•,••• •,••3	•.••• •.••	494	*,*1* 478 0.*1*	0,022 490 0.622	-0,051 438 8-766
20	TAGT	EP Lacous	-8,827 268 8.74	0,039 248 7 0,652	6,083 208 8.229	·.···	1.134 201 7.144		210	• • • • • • • • • • • • • • • • • • •	0,023 200 0,742	1,109 218 1,727	*.*37 7**	1,087 208 1,287	1,271 211	1,147 200	1,141 214 1,141	1.152 2.14
n	8	W Alter	-0.074	-0,013 -		•.•.	1			8.82E	•,•34	1.162	0,958 444	0.070			1,110	1,110
22		<b>II</b> Amount	-0,041	• •.777 •.•37 •.44	1,103 4,103	0,000 0,192	0,074 0,134	.217	·	•.•.3	•,•75 •,•75	0,172 0,172	0,218 0,031	0,130				
23		M. Injey	1 · 18 • 1 , 199	9 8:497 3,877	#.#73 4,199	.,720		•,237	$\sim$	e,350 8,876	*+114 *,114	0.120 0.107	8.278 9,196	0.003 0.179				
24		Ago		<u></u>		<u> </u>	<u>ب</u>		<b>S</b>				Ö	ė	Ś	<b>E</b>		
	ŭ		517 6.36	7 0.527	Ċ	2		) <del>(</del>		$\bigcirc$	0	÷	a.33e	-H-	)	) Com	0	
				D		492 0.843	·····	442 442 8,316	492 492 8.921	0,020 (02 0,53>	492	6	492 492 0.074	472 472 8.158	0,024 492 0,001	0,043 492 0-167	0.020 492 0.542	
26	Î	Boligion Impor.	-0.021 570 0.02	9.245 579 5 9.316	8,963 578 8,159	8.018 928 8.000	-8.814 978 8.414	0.013 520 0.762	4,929 578 8,987	0.015 580 0.427	0,023 920 0,001	1,137 - 521 1,397	·	0.027 570 0.419	0,063 520 0,140	8,844 528 8,314	0,003 570 0,954	8.887 578 8-154
27		Baligion Ather.	-9.972	8,827 528 3 7.944	6,111 970	1,131 521 1,114	8.818 978 8.484	0,984 578 0,44	0,041 920		•,•27 570	0,040 - 520	9,017 578	•.•3•	0,020 520	1,452 528	.127	1.133 240
20		Solf Change	0.024 5 <sup>20</sup>	3+113		8. 9.38 9. 9.38	8+ 874	0.051	1.182 ·	<u> </u>	1.442 5 <sup>20</sup>	6.00 <sup>0</sup> -	****** *****		4. 4.37	8-884	1.131	1,047
, ,		Child Rearing	0,94 -0,924 524	a;779		y 1:341 1.319	•••••• 	0,223 0,053	0,002 0,031 971	1;648 8,178 385	0;945 0,005 524	0,100	0,620	1,124 1,124	1;317 1,144	0,122 0,122	07100 0,0 <u>21</u>	0.343 0.110
30	INTEG	Mirth Omstrol	1,50 -0,154	• 3.731 • • • • • •	0,184 8,034	1.113 -1.146	0.030 -1.031	0.231 •0,013	0,474 •0,948	0,073 0,999	(i)) (i))	) 	<del>.</del>		) (() (,)))	, 	1,039	
n		Automotion	\$19 \$122	519 1 8-269	319 0.400 8 497	1.275 1.275	519 81491	,,,,,,	519 8.274	919 91243		519 81978	œ	919 91149	919 01902	519 0-070	919 91431	519
	1		916 911	, ,124	916	914 1.007	516	\$16 8,883	510	1	\$16 •.14•	916 8.204	,11 ,175	<b>C</b>	)	916 0.066	510 8,003	
2		reitrichi Lond,	-0,001 917 0.90	.4,847 917 3 8.205	8,846 917 8,386	-8,868 517 8,864	8,897 917 8-198	•8,888 917 8.899	8,839 517 8,375	8,011 317 0,003	9,929 517 9,304	0,060 517 0.121	8,874 517 8,891	0,040 517 0.121	0,014 917 0,713	8,845 517 8,148	0,023 517 0.406	0,001 517 0.160
33		hale Adher,	-0,044 920	0,040 570 40,840	8,038 970 0,303	*, #73 \$28 \$, #**	0,054 570 0,221	0,041 970 0,348	0,036 520 0,415	0,038 586 0,380	•,••• ??!•	',''' the	·	•.155 •.155 •.107	•.•;;;			.133
*		Local ALA	-0.040	••. +++	1. 475 917		0,070 	1,121	. دور را سلبلاسی	*,*;* ;;;*	•,•1•	1,151 311		<u> </u>	1,114		1,111	0,120
33	8	Peteral Ald	0,021 914	-4,434 514		-0,071 910	·		·	1, 1, 1 1, 1, 1 114	•,•#• •,•#•	0,040 914	<u>سب</u>			<u>س</u>	<u>س</u> ،	فننه ۱.۱.۱
		M. Finning	0.64 -0.021	1 = 4,477 - 4,9 <b>44</b> , 4	-4,183 4,447	•••• <u>•</u> ••		•.177 •.1 <u>21</u> .•	•••••		) 1.817 1.1811	1,213 1,123	••• <u>•</u> ••	<u>,</u>	)		••• <u>•</u> ••	
			8,28		_4,444	_ 4, 674	0.914	0,434	1,432	¢	1.171	<del>ر</del> ينه	0,347	4.240	,350 1,350	4.001	913 8,300	\$33 8-414
	VARIA	LN1		. 1	-						. 1		1111 11				WALLOR	
444	<b>10-1</b> 2	I							,					"	.,	<b>"</b>		10

TABLE A.4.--Correlation matrix for the Belize primary teacher sample.

5.84 -1.101 1. 0.073 1.254 0.193 0.1 **~~** 3.537 4.440 -9.612 -9.667 1.632 4.940 -9.612 -9.667 1.632 4.97 407 204 447 9.274 1.763 1.335 1.497 4.310 .090 (.094 0.012 -0.001 0.010 0.060 0.090 403 404 800 401 407 40 403 404 8.00 401 8.00 404 8.000 8.000 8.001 8.000 8.000 8.119 in C -4,034 -0,025 0,060 0,064 -0,061 -0,015 0,0 403 -07,025 240 442 447 47 0.446 0.568 0.236 0.351 0.375 0.010 1,0<u>11</u>, 1,17 3.010 -920 -9.025 918 91993 0,010 0,000 -0,011 0,010 0,011 0,000 0,010 0,000 -0,000 -0,017 0,001 0,000 0,000 0,017 0,000 0,070 0,000 0,077 0,000 0,0 0,000 0,013 914 914 9.489 0,769 1,11,1,1,027 0,004 0,004 0,037 0,054 1,11,1,1,007 0,000 000 0,037 0,056 0,764 0,057 0,056 0,046 0,057 \*.\*!\* \*.\*\*? 1.48 B .... •;in 🗗 đ. \*.em \*.e72 \*.eg7 \*.sea \*.e74 \*.es3 \*.220 1.15 1,077 010 1 1.10 0.174 0.1 8.178 0,112 -0,043 0,043 0,064 407 307 441 407 307 441 1,004 1,130 1,03 0,007 0,050 8,891 8,841 . H.S. 0.241 ath a 1,141 1,441 1,141 1,441 •.•?? #10 •.#9 1,124 1,1 0.165 1.142 8,817 912 8,709 , **1** 914 1, 413 912 0,100 1,14 (7,1 8,978 **C** Cille -1.011 -0.040 0.000 0.070 0.130 7 0.000 0.300 0.073 0.070 8,628 -4.134 4.616 6.634 8.661 311 446 511 512 447 8.456 4.434 8.723 8.567 8.991

12									MANEC		-	LINGATION.				BROAS	301	i
17	18	19	30	n	22	บ	*	บ	*	17	 29	30	31	M	ນ	ж	35	Ī
																		^

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		$\wedge$																
1		Storestype																
2		Hormstive	<u>ٿ</u> '	_														
		Morel Businesses		- 1.12F														
				đ	>													
•		Bypothetical	* .10	8.907	8. A62													
		Feeling	-,201 [_]]]	1.1.1	<u>برم</u> م	<b>,</b> ,,,,,,												
·				51.		3, 463												
•		Action		4.707	·	4,107 7u	-:.317											
Ι,	1	The st		·	N.484	4.774		2										
				de te	à	ی د	e 📥	>										
•		Stereotype		1.10%		1.4. 		*.154 59										
,		Bornstive	1.739	4.647	3. 163	1,20 <u>0</u>	6.624	. 172	A.785									
				1.761	$rac{1}{2}$	> •		0.61*		ditte i	)							
10		Noral Bralastica	50	*.257 *. *.*72		i. Ville	D	*.***	0.16		a.in							
11		Rypothetical		4.320	1.71	4.485	-0,-07	0,10č	ñ. 567	*. **?	1.344	e						
							D	0,281	œ									
"		Feeling	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1			s and	D	50	÷		ditte te		÷	,				
13		Action	1.165	4.71.	F.767	A. 31	-c	8.794	8.47A 50	•. 294	•.1•;		1.477	•.*11				
		Prest		4.12 <sup>2</sup>	n.161 81478		• • • • • •			) 0.767 - 868	0.245			6 +.133 1.787	0.907			
				<u>ب</u> ليم	<u>c</u>	2010	D v. ??	1.001	æ		de la	d	-	đ	a the	2		
1.5		EfficacyCont.	·	1.100	7.734 90	•."";,	P. 494	-n.137 50	۰. <sup>-</sup> ، ۲	A. 145		•.34			•.1•4			
1.6		Efficacy-lat.	1.154	• •.444 •.•30	4.747	4.240	-0.377	n.087	e	ملانين دور.	0.448	r. 490	P. 387	1.10	•.••1	1.494	n.483	
			;;,	· · · · · · · · · · · · · · · · · · ·	يتى	<u></u>			<u></u> ;;,	1	Ċ	<u>a</u>	c.il.	ette		eite		-
17		MR. Encolodge	1		<u>ود.</u>	1,411 	1.124 0.124	-#.953		•	~. 76 % 50	1. ret	*. **7 **	4.147 98 5.257	*.11A ****	0.127 50 0.375	9,149	
18		EP Assest		····	-7.11	3.14		0.109	1.072		. 267 .		.157		1.727	-1.154	-9.005	
19		NP Arold	•.24	1.724	*.43*	5.63		C.151		T.h,	- CT-	) •	1.764	r.454	•.113	0.27+	a	
				*****	*.73A *.091	0.15	U.442	-0.054 90 0.704		*.***	50 7,194				•.•••	90 9,977	50 0.471	
70		EP Income	-0.187	-1.194	- ř. ?4	-4.116	-*.174	-0.070			1.074 ·		··. 71 •	··. 778	••	-0,198 50	-1.736	-1.15
21		EP Alter		• 3.344 • 244	4.989 61338	4.184	5 8.798 8 842	· • • • • •	<u> </u>	· · · · · · · ·	0.401	****	8.121 8.245		> •.•3+	0,150	0.100	•.•?
					œ		0.749	1.337	$\odot$	÷	1	. 424	6.474	4.036		50		,
22		ul Anount		-1.117	7:101 50	4.212	•.••	-4,134	n.134 47	•	• • • • • • • • • • • • • • • • • • • •		*.18A 		·•.,»,, ~**		-4.137 	-`
23		Hi Injoy			#.167	N. 172	-0.327	r.274	n. 124	A.124	n.eo?	B.145	*/ *	*.e4/ .*.*38	0,179	0,149	-8.488	1.10.
		<b>I</b>	n. 191	1.131	• . 741	1.222		<u> </u>	> •.•	9.307	n. #59	7.794	÷		*.715	0,797	4.572	
			عبيني	1.197 1.197	-4.12	4.621 50 0.002	n.van 19	n.233 5n 8.997	0.184 50 6.191	1.146 50 7.302	9,194 . 90 9,489		4.01* *8 8.493	a.e31 78 8.697	0.11A 50 0.407	0.074 50 0.003	-8.947	*****
25		Blue, Anount		÷.••*?	6.123	*.120	0.014	-0.041	1.129	A.155	s.103	n.23n				1.133	4.785	• • • • • •
26		Religion Impor.	•.•37	• • • • •	4.184	2,500		• •	4. 464	n.274	0.460	1.101	0.750	•	•	1.34	•.í••	1.15
				1.827		30	v.7	9,483	• •••		0,300			, e95		50 0.447	0,103	
27		Religion Adherence	· · • • ? .	-1.13	71.483 18	4.307	0. ×3•	8.074 5n	A. 474	*	•.,2; •	••••••		*.*1* 58	0.154	•.••;	-8.187 78	
28	$\vdash$	Self Change	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	A.433	9.948 n.348	-4.624	P.443	n. 991	8.774 .r.s&A -	0.194	*.71F	4.759	#. 895 	0.274 0.287	0.66 	0.183 0.457	
				4.431	1.75	đ		1.914	52	1,533	0.163			. 387			4.714	• •
29		Child Resting	1.17		1.131	1,193	1.055		h.174	•	•.1••				•.139	•.•••	-*.**1	-' .??
ю		Birth Control		4.195	1" 3 <u>1</u>	-#.#4 <u>3</u> _	-8,149	-8,144		1.029	0,192	8.526	•.•3 <u>1</u>	•.••1	••••••••••••••••••••••••••••••••••••••	•.90* ••,• <u>••</u>	4.47 <u>6</u>	•. ••
			31	1.447	1.029	1.055	9,291	0.384			0,473			1.125	• , <b>2</b> • 1	1.35	1,627	·. <b>·</b> .
			ar . 124 53 8, 177	-1.24 1.797	-4,137 58 0,191	-*.143 *.30	-0.224	-8.084 91 0.974	-8.250 50 8.144	*.14* *.2**	•.142 - •.316		*. #35 ·		••.•21 •••	••••••••••••••••••••••••••••••••••••••	-8.827 50 8.848	· . #3·
32		Political Land,	-1.001	-1,-30		·*. 143	P. #3	-0.073		•.••	0,1 <b>0</b> 1 -	•.•.•	•.••			1.03	0.370	
33		Bule Adherance	1.47	4.787 4.947	• • •	1,798	· •	8.60A	n.948	e.iis	0,175	0. <b>111</b>	•.•.	1,745	0.956	1.63	<b></b>	1.19
				di te	<u>a</u>	2.0.0	· · · · · · ·	0, A14		1			<u> </u>		<u></u>	<del>c.il</del>		1.763 30
*		Local Ald	•" . •74 •0	•*.*** **		-1.939	.14	n. Jan 50	ñ.184	*. * <b>**</b> -	*.**7 **	0.427 50	9.179	•	1.369	1.184	1.159	
33		Poderal Aid	\$,99* •*,013	1.47P	P.764	8.784 -4.809	· 8,794 -6,191	Q.EIZ	2 9,4 <u>9</u> 4 -8,109	*.48A N.424 -	0,741 0,461	4,478 8,115	#,34P #,894	*.973 *.999 -		2 8,984 8,885	0,474 -0,484	4,4 <u>3</u> 5
			•.**	Ċ		9.970	*n *,174		0.074	98 1,841	90		0.494		1,453	8.97A	đ	10 1,24+
34		M. Flowning	•• • • • •	-1.13		*. * **	-1.347	n.141	n 147 90		9,135 						1,005 59	1.117
	VARI	AULUI	-,,		ATTITUDE	CONTENT	<u>e.</u> 11				•.334 A		0.733	0,724			WLEE	<u> </u>
		TELAS- 5 IE								. 1	. 1	1e T	<u></u>	<u>,</u> 1	, 1		<u>,</u> 1	14
			•	•		•	, ,	ı ۰ ۱	•	-	-			~				

TABLE A.5.--Correlation matrix for the Mexican-American SER<sup>1</sup> sample.



,		AL arrant rate										
			1.079 									
			4,137 6,137 5,144 6,137 6,137 50 78 78									
•	t contra		9,994 8,454 8,991 9,954 8,894 8,101 8, 98 , 48 84	310								
,	ATT TTO	Feeling	0,473 P.709 9,474 ( ,435 4,196 -ā,936 4, 90 - 99 50 50	413 0,390 -12								
•		Action	8,484 9,769 8,837 ( 1,688 8,756 8,493 8, 58 58 58 54		9 1,934 <u>- 94</u>							
,		Total										
•		Storestype	n,990 8,445 8,257 1,023 8,729 -8,197 4, 90 90 91 8,729 -8,197 4,	8,188 8,754 ,188 -8,914 38 -8,914	4.344 4.122	n , 483 98						
,		Berustive		1.120 4.424 344 4.114	•							
10	E	Moral Brolustion	8.849 E.842 8.357 C 4.994 -8.194 -8.996 -		1.427 -1.419							
11		Bypothetics1		1.10 0.107	0.147 0.150 0.139 0.109			.421				
12	E E	Fealing	a, 281 a, 280 a, 754 ( ), 884 à, 224 , -8, 194 A,		1.350 1.360 1.947 1.927		Ċ Ċ Ċ					
13		Action	0.700 8.700 0.704 ( 0.700 -4.614 -4.607 4.					0,393 0,14 0,707 0,709	4 8,978			
14		Total	98 98 98 99 9.997 8.937 4.439 ( .178 -4.199 -8.147 -4.		<b>ab</b> 1.??.			<u>an an</u>		<b>?</b> •		
15		EfficacyCast.	98 48 48 8.286 8.262 4.183 1.676 8.268 8.163	1.760 1.433	90 90 9.764 9.767 9.764 8.767	90 0,075 0	30 0.147 0.497 0.147	40 90 0.456 0.43	e 0,763 0 0.007 0.3	- 90 , 374 27 - 0	. 129	
16	Ľ	AfficaeyInt.	98 98 98 98 98 98 98 98 98 98 98 98 98 9	1.142 0.140	90 98 0.700 0.311	90 0,322 0 4.303 1.3		ഷഷ			1,849	5
17	Ì	A Berrlaige	90 45 49 0.917 8.136 4.731	90 40 1,944 0,404	90 0.747 0.391		90 90 0,076 0,313	0,954 0,13		<b>b</b>	4,797	•
18		<b>P</b> 1	8.788 6.173 9.481	98 98 8,366 8,46P	•.ii, •.iii	•,??•		4,491 0,14	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,269		
19		<b>- J</b> 54	50 51 52 50 0.400 1.457 1.463	1,310 1,351	90 50 9.103 6.904	4,532 I		4,331 4,07	• •,11			
20	1	P Income	. 201 -1.050 6.094 -8. 50 46 40 0.461 8.481 4.525	070 -0,104 70 40 1,424 0.461	0.033 -0.114 90 50 0.017 0.409	•.122 ••.1 50 •.300 •	90 90 90 90 90 90	*. 457 8. 465 *. 477	0,030 -0,1 90 5 0,709 0		1.999	*.11× *.417
n	L'HA	I Alter		174 -0.058 70 40 0.717 0.726		•.••. <b>•</b> .••		0,079 -0.047 90 90 0,995 0,74		15 -0 50 .125	,184 90 1,447	-+, <b>+ 3 -</b> - <b>-</b>
22		M Anomi	),682 6,250 7,407 -6, 98 96 98 9,964 8,764 9,492	148 -0,114 - 50 40 8,294 8,482	9,100 0,059 90 90 9,406 0,679	<b>4</b>	36 -8,878 98 98 9,794 8,989	*,43* 4,187 58 58 *,786 8,44	-0,037 -0,0 70 • 0,794 0	71 -8 58 .414	•	đ
23		M Bajey	1.120 (.334 -3.)(04 4. 1.301 (.314 -3.)(04 4.	881 -0,094 30 99 4,369 0,498		••,122 •,0 50 0,390 0	149 -0,116 - 98 98 1,792 8,411	0,067 -0.121 90 50 0,438 0,39		11 -8 98 .941	. 889 78 8 . 538	
*		4.	1,188 1,499 8,160 8, 93 43 93 8.183 8,492 8,234	195 0,140 70 4g 8,164 0,796	0,030 8,913 90 98 9,785 0.126	4,003 -0,1 50 0,003 0	50 91 50 91 1,562 1,285	0,010 0,136 90 90 0,047 0,33	· • · 720 • •	38 - 8 58 ,78A	.137 	1.14
25	2	Muc. Anoust	),459 4,109 -8,844 8, 98 45 90 8,788 8,442 8,757	051 -4.850 - 90 -8 4.710 0.479	.0,847 -6.684 78 78 8,743 6.976	4.127 -0,0 90 0,371 0	03 -0,117 90 90 0,956 0,410	0.219 8.120 70 90 6.125 0.36	0,097 0,0 90 6 0,090 0	21 -è 58 ,889	.193 90 8.274	1.125 4.177
26	A VIII	Baligion Impor.	1,131 -8,888 -8,457 8. 98 94 83 8,537 8,056 6,688	101 0.107 90 0.107 8.400 0.197		1.948 9.9 90 9,730 9	34 0.148 90 90 1.343 0.290	0,196 0.07 <u>1</u> 90 90 0,165 0.01	· ·	20 -0 70 .104	.119 90 8.402	1.72. 50 1.11
27		Boligion Adhorones	131 -1,449 -2,457 8. 58 48 98 9.557 7,056 8,688	100 0,109 1,400 0,107	<b></b>	n, e e e , s n, 730 e	34 8,148 38 88 ,343 8,296	0,106 4.071 9,169 0.44		20 -0 50 .194	.119 90 9.407	*.92/ 10 1.11
*		Solf Change	1.179 -4.141 -8.879 8. 50 50 50 50 8.716 7.946 4.999	137 4,824 - 98 98 6,333 0,848	4,144 -8,684 58 50 8,245 8,994		50 0,101 50 50 0,781 0,569	0,381 0,193 90 90 0.900 0,39	60,107 -0,0 90 0 0,193 0	33 -0 50 .010 0		
27		Child Beering	1.169 Å.937 Å.496 -Å. 98 48 99 8.933 Å.499 Å.497	(66 8,294 98 48 8.239 8,868	0.123 0.230 90 70 0.364 0.009	4,114 -8,8 90 8,422 0	176 -0,181 - 30 -90 1,903 0,960	0,116 -8,098 98 99 0,417 8,49	8,877 -8,8 78 8 8,989 8	** i 38 .92*	. 308 98 8.888	7.14* 49 4.287
20		Birth Gestrol	.833 8,162 -8,843 -8, 88 86 99 8,910 4,951 8,764	423 0.000 78 98 8.049 1.939	1,037 8,075 70 90 90 8,704 4,707	0.184 -0.1 50 0.192 0	137 -0.178 - 90 - 1 1,331 - 1,387	0.111 -0.045 90 -91 0.489 0.79	-9,996 -9,9 98 1 9,960 9	62   38   . 664	. 24 j 1 . 64 7	•*.14* •.19*
31		Antenation	.214 ñ.844 ã.808 -6. 98 90 98 9.123 ř.758 8.489	.543 8,884 4 99 49 8,858 8,999	4,335 6,826 •••••		191 •0,112 90 90 1,720 0,431	1.027 4.027 1.027 4.027		82 -4 38 .197	.170 0.103	·.•?`
и	8	Politinol	1,789 -87179 -87848 -8, 98 96 98 98 8,198 8,918 8,734	100 0,243 90 0,243 0,533 0,406	4,12( -ñ,694 98 98 8,393 6.785	8,120 -0,0 90 8,390 0	98 -8,854 98 -8,854 98 -8,854	•.414 •.109 •.417 •.44	0,197 0,1 70 1 0,377 0	10 <b>i</b> ,317 (		( . 767 73 4 . 161
u		Inte Adherence		181 -0,19i - 1,952 0,72i	4,100 -0.007 0.100 6.007	·•,•29 ••,• 34 •,•30 •			-1,114 1,2 D 1,444 1	16 -4 50 .183	. ##[ • , <b>16</b> 4	1.232 7. 7.
*		Local ALS	1,000 8,897 -8,407 8, 98 99 98 8,664 8,710 8,984	412 -0.264 ·	4,287 -8,499 50 50 0,148 0,926	4,057 -0,6 98 0,400 0	50 -0,094 50 50 ,094 0,007	1,849 -8,148 94 98 8,447 8,29		17 1 31 .454	.000 90 0,964	-0.164 98 9.257
"		Polarol ALd	.131 -8:838 -8:828 8, 98 90 90 90 9.194 8.939 0.044	n	-0,006 ñ.i20 70 90 2 0,545 6,397		22 -9,083 96 98 1,114 9,563	0.160 0.107 90 90 0.781 0.48	-4,199 -4,8 99 1 8,497 8	39 8 78 ,788		7.109 98 7.441
	•	Nur. Planing			0,004 8,623 90 90 9,743 4,419	·d.109 •0.1	87 -0.137 98 - 98 1189 -0.334	1.100 8.134 4.100 0.34	-8,871 -8,8 90 8 1,629 8			0.115 40 8.417
			ATTITUS				ATTITUD					
	VARI.		1 1 1 1 1			. 1	10	u		<u>_</u> +		

TABLE A.6.--Correlation matrix for the Mexican-American PMR<sup>1</sup> sample.

-1.(39 4, 7,785								1			~ ~	<b>4</b> h			<u> </u>			
-4.147 45 7.237	5. 131 13 1.114							ra re	tai	rdeo	1.	εn	em	lent	arr	У		
1.244 1.451	1.1• 1.176		<b>,</b>															
5,049 40 5,731	*: 191 96 1.514	<u>e</u>	-•.+•. •.••															
) F.421	40 r.484	1.315 (12)	ۍ ک	e conte	>													
-3. (3) 	.7.73		6.385 6.787	<u></u>		, 												
0. F74 R. K9>		• • • • •	+, 134 +, 743	1.447	8.51A	0.967												
58 7.998		<del>ett</del>		•	90 0.101	50 8.866	·											
*,719	*. *** *. ***	0,173	•	ette	> 1.445	9,118		œ										
4.719	A.054	90 0,173	0	0.044	0.465	90 0,110	0,670	<u></u>		0								
) 5.447	1, 184 F, 176	0.198	2 4.133 1.421	9.920 9.920	0.17# 0.187	9,776 9,776	90 9,149 9,175	90 0.493 0.924 -	0.444 0.444	90 9,466 9,466	•,111							
1.739 -1.107	93 9.994 	•.15• •.4.••	0,149 -0,149	c.747	90 0.757 .9.120	50 8,163 .0,843_ 0	•, <b>5</b> •,	0,460 1,067 -	8,799 8,443	1,711 1,711	1,433	0,019						
<b>،</b>		• • • • • •	4.294 8.873	0.775	1.384 1.329	0.762 	•. <b>3</b>	0,437 0,013 -	<del>رال</del> ته ا			• •. <b>**</b>	1.14					
ā.ise -i.ā42	0.146 F;#34	1.334 1.202	•.210 •.210	8,243 8,841	de	, 20 g _ 1	•.35s	1,229 9,229	•.747 •.19 <u>7</u>	•.347 •.1•7	с <u>і</u> в 	• •.344 •.147	1,757 1,142	-1.181				
ñ. 444 1. 124	4.913		•.234 •.234	•. <sup>3</sup>	<u>ن</u> ون.	)	1.47 1.134	1.307 .917.1	1.331 1.314	+.451 +.314	,, is, , is, is, is, is, is, is, is, is, is, is	1,143 1,195 -	1,249	9.33. 1.104	1.674			
6.167 -3.264	n.754	8. / 87 - 8. 246	0.849 -0.271	1.527 3.814	1.191 	0.437	0.343	<u></u>		1.13	• •.520	0.699	•.63.	1.454	*.***	-5.154		
4,44F -4,475 -9	1.445 1.429	3,879 4,889		) 1,147 1,117	4.24	) 0,001 4,170 ( 50	0,744 1,018 70	0,020 -	•,264 • ,192 •	1,244 1,192 19	0,629 1,091 1,091	0,401 0,290 _50	0,647 6,144 50	·.».,	4.444 4.204	-, 279 -, 139 -, 139	.1.74	
·	1, 147 1, 194 1, 194 9)	6.950 9.496 93	0,107 0.274 40	0,454 4.057	9.174 1.245 10	8,238 1,718 50	0,000 1,005 50	0,945 0,147	8,472 9,914 48	8,472 8,816 98	8,928 8,147 91	•	4.316 6.976 90	1.127 1.194	5,749 1,148 83	•. 140 	0.237	3.841
5,767 10001-	۰.,,,	3.496	عوري	0.644	4,894	0.120	1.735	0,299	0.911	•.911	4.999	1,235	0,992	1.164	1.22	1,480	14.	
17	10	19	20	21	22	23	24	15	26	27	28	29	30	31	32		34	35
		·		••••••	•	·										ABS-101-12	AS- DO	

1		termtype	1 0.460														
2		Permative	0.10	2													
,		Borol Brelustion	0,108 70 8,483	0.146													
		Rypothetical		0,171 1. 0,727 C													
,	T T T	Feeling	*.181 *.200	0.100		P											
		Action	•0, *74 30 •, 594	0.055 0. 0.760	8.124 (1.0	0.430											
,		Total															
•		Sterestype	-^.no7 - 50 n.493	0.215 -0. 90 0.135	056 0.127 36 5 0.693 0.3	C.045		0.033 0.010									
,		Norma ti vo	••••1• •••	0,121 -6.	114 0.104 0.421 0.4	-6.080		4.497	-								
10		Boral Brainstion	8.202 - 50 1.152	0.192 -+. 56 0.172	0.073 0.0 0.073 0.0	-0.101 37		0,02 <u>1</u> 70 0.002									
ո		Rypothetical	A_123 9,215	1.423	01 <u>8 0.008</u> 0.499 0.9	-0,120		1.11 1.137	1,213 9,130								
12	Sentit	Feeling	n, 484 58 0, 554	0.043 -9. 50 0.761	115 1.143 58 1.143 9.974 1.5	8. 848 70 6 8. 733		e	0.132 50 50								
13		Act Los		0,144 8. 30 0,300	213 1.39 1.191						50 0.092	8.184 58 8.183	1.121 54 1.392				
		Potal	A, A68 -	1.075 0. 51 0.595	*10 *.101 *.**3 *.2	-1,020		0.343 0.313		,							
13	$\vdash$	EfficacyGent.	-0.194 50 8.275	0.005 -0. 50 0.971	034 -0,141 50 5 0.811 0.3	-0.007 . 30 7 0.541		0.131 -1 30 0.356	90 90 9,011	1,103 -1 50 0,467	90 90 9,974		0.415 -0 50 0.910	.078 50 0.503	·		
1.	ALLER V	Efficacey Lat .	*.110	8,893 -r.	*** *.14* ***	1.849 50 22 0.529		•			 A.	1.340 50 (1.112)				90 90 91 92	
.,	85	th Encodedge	0. 874 	0.096 0. 9.918	134 1.18A	-0.017 -		0.456 -1 77 8.693	1,030 -1 30 0,790	, 001 -1 50	1.220		1.319 ·I	.343 -	4,179 -0 51 4,215	· · · · · · · · · · · · · · · · · · ·	R. 484
1.0		07 America .	-0.439	0.004 -0. 50	****	0.101		9.930 -0 53	1.139 50 1.137	.003 -1 51				.036 -		99 99	1 . 7
19		<b>W</b> Arrold	-7.428	0.1** 0.	298 3.183	0.119					1.174 -	•••••	8.187 C	. 115	•.•34 59	*. **7 **	A.125
20		Ø Income	217	0.338 0.2 <u>06</u> 0.	**************************************				0.050 1.054 -1 20		1.121 5	1.155 1.155	:.061 -0		•,•13 •,••• •!		••.1•1
21	MEACE	EP Alter	-0,127	4.025 F.	243 1,144	F. 852			0.041 1 98 8.978	,122 50 8.344	1.174 5: 1.217		6.207 -0 40		0,212 0,212 0,131	1,052 50 8,716	1.147 50
22	8	HR Amount	n,174 50 8,218	1.314 1.	149 0.168 30 9	*.081 97		0.322 -1 70 0.020	38 5.524	.#27 ( 50 #.#52	- 53 - 53 8.704	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.046 0 50 0.744		•.1•1 •·	,104 50 1.244	*
23		HE Bajey	0.122 0.309	•	213 A.875 0.129 0.5	0.201 0 0.193	102 0.472		1. 049 90 8. 732		90 0.815		0.007 0 0.507	.120 98 0.361	1,010 1,010 1,015		P.241
24	1	44.	0.812 90 8.934	0.000 -0. 70 0.537	455 -0.224 78 7 8.699 8.1	*.#1° ·		0,112 +1 99 0,429	93 93 8.349	.244 -1 78 0.001	9.624 -		0.173 -0 98 0.219	.0v1 -0 90 150.0	1,234 50 1,095	1,256 58 1,467	4,100 6,231
25		Blue, Anount	0.170 90 8.229	0.177 0. 90 0.722	143 1.334 1.193 (1.4	•.31 •.31			1.145 91 8.447	,244 -1 98 8,867	50 8.956	, 1		.131 98 8.356	8,254 40 98 8,867	90 90 9,100	8,485 50 8,547
26	CITA MICON	Roligion Impor.	0.432 0.423	0.104 C. 0.149	074 0.151 0.601 0.7	-0.050		0,100 -0 90 0.440	0.155 •0 0.273	. 025 -1 70 0,490	90 90 8.464	0.054 .702	0.202 •1 50 0.150	.012 • 78 8.932	•.•1• •, <b>?</b> ••	9,033 90 0,014	-4,171 90 8,225
27	8	Roligion Adherence	0.037 91 0.823	0.194 0. 90 0.109	074 0.151 50 5 0.601 0.2	-1.134 -		0.100 -1 97 0.440	1.195 -( 70 8.273	.025 -0 50 8,859	90 0.464	1.154 50 1.702	0.202 -0 90 0.190	.012 -0 90 0.942	0,010 58 0,095	9,033 90 9,014	-0.171 50 0.225
23		Solf Change	0.170 90 0.220	0.110 0. 70 0.407	199 -8.100 9.157 8.4	0.000 ·		0.111 77 0.435	1.212	128 78 8,367	70 1.529	•.144 •.30•	0.946 0 98 9,745	.941 •.772	1,140 50 0,292		*.191 50 *.174
29		Child Resring	-9.878 -9.878 8.587	0.051 -t. 0.720	109 0.010 8.444 0.0	-0.050	•.142 · •.252	0,020 0,041	0.340 ( 0.340		0,012 -1 0,034	•.•34 •.701	•.•11 •.•37	.1 <b>V1</b> .175	1,094 90 9,519	1,263 70 1,097	<sup>4</sup> .403 
30	UMATIC	Mirth Control	-6,734 -99 0,096	0.265 0. 90 0.058	149 -0.028 9.241 0.0	-8.895 -	•.•?• •	0.251 -1 90 0.207	1,084 -( 94 0,993	,049 98 0,731	0.083 - 90 0.558	••••••	1.140 -0 50 1.292	•117 •1 58 1•487			0.472 50 8.410
и	DIMNER OF	Automotion	-8,164 -99 8,746	0.074 8. 90 0.404	176 -0.095 78 -0.095 0.991 0.0	-8.144	0.652	0.300 0,444	0,147 ( 0,380	1011 ( 0,017	1.241 9.085	0.720 70 0.110	8,899 -0 58 8,487		9,161 70 9,754	1,183 90 0,279	8,746 58 8,079
32		Political Load.	9,105 9,195 8,199	0.045 0. 9.649	246 -0.004 0.044 0.9	, <b>"</b>	101 0.170	0.100	0.032 -( 0.022		0.730	1.746 - 1.741	0.038 -0 79 0.700	,201 •1 98 0.134	0,144 0 90 0,301	90 1,44>	-0,160 90 8,957
33		Bale Affertunes	 	0.197 0. 30 2.0.200	103 0,057 98 0.170 0.4	0,197 . 90 0 0.101	0.174 70 0.217	0,196 -1 9,163	0,000 -0 9,539	0,039 1929 1939	1.041	1.170	1,147 -1 50 1,297	.047 ( 50 0.942	1,849 •4 58 _8,788	1,198 90 9,44/	• # , ##4 50 8, 507
<b> </b> ×		Local Aid	-0, 121 50 1, 103	0,033 ). 9,015	121 0.020 0.114 0.0	0,037 7 0,792		1,073 -0 71 1,017		1939 91971	,112 50 0.420	1, 124 30 1. 145	0,146 -0 50 0,303	.051	9,083 -0 98 9,712	1,001 50 8,560	
33	0CATION	Pedaral ALd	8,824 50 8,869	0.019 0. 0.017	220 0.023 9.102 0.0	1.311 	0.000 0.004	0,101 0,170	0,629 -0 0,637	. #10 . 	.199 . 0.401		1 <u>.214 -1</u> 1.214 -1		9,184 +0 96 9,187	1187 40 0,370	1 1 83 30 
34	*	Muc. Flowing		8,947 8, 98 9,741	122 1.032 1.390 0.0	1,342 11 (11)	0.403	0.214	0,005 0) 0,009		0.020		1,218 1,119	1112 -1 1112 -1 1.431	1,040 •1 88 8,777	1194 98 0.100	112 n,427
		ur w <sup>1</sup>	•		ATTITUDE 00						ATTITU	. 197861	π				
-	13-1 <b>1</b>	TILM-BIT	1	2	, ,	,	•	,	٠	,	10	11	u	13	14	15	16

TABLE A.7.--Correlation matrix for the Mexican--American RST<sup>1</sup> sample.

• !	1, 929								1,		. 7		- h -	~ 7	+ 1		-		
ī									F	egi	irai	. 20	ino	01	Laci	ier	5.		
	·	1.040																	
-	0.135	1.857	0,037 50 0.020																
-1	1,054 ( 30	.245 -		0.110 70															
	1,74 <u>1</u> 1,824 (	1.145	0.470 0.370	0.155															
	8.857	0.363	C.H.	0.271															
-!	0.097 <u>0</u> 90 0.495	0.170	0.247 0.178	0.13V 0.262	3.000 9.071	att	r												
-1	0.172 0 30 0.723	. 824 	8,846 ·	0.196 91 0.164	0.141 0.320	0,048 - 90 0,760	1,111 1,111												
•	1,061 -0 50	1. 035 30	P. 862 38	0.044 9.754		0,056 57 0.671	0.011 9.724		,										
•	0.254 -I		0.073	0.220	v. 182	-8,105	0,879	.1.1.10	0,152										
	8, <u>470</u>	0.354 1.14	0.486 0.473	0.117	8,878	0.649	8.970	0,107	0.201										
_	98 8.878	99 0.350	1.114	0.117	1,878	1,649	0.579	0,147	0.201	σīb									
-1	0,125 -( 40 0.378	107 70 8.449	0.022 90 0.077	0.143 · 98 ·	1.615	8,849 91 8,628	1,084	0,140	1,844 - 98 8,759	8.190 - 90 8.178	9.190 98 9.178								
ļ	0,873 (		0.170	0,144		0.124		-0,011 .	4.331 .	1.136 -	1,036	111							
	8,Á09	0.401	4,224	0.300	0.505	1,000	8,747	0,940		8.797	0,707	1,423							
	90 0.927	1.115		8.412	1.442	0.430	1,095	8,774	1.141	0.499	0,499	1.112	0,578						
•	0.874 -1 50 0.594	. 829 - 58 8.899	0.177 50 0.222	0.145 90 0.304	· · 295 51 8. 848	0.075 - 50 0.997	1,130 98 1,783	8,849 	8,174 98 8,216	1.192 90 1.172	9,192 •0 50 9,192	30 90 0,700	.040 58 0,781						
•!	.114 -	1.128	P.100 -	0.994 33		-9.022 ·	.0.040 30	1.81	1.199 51			.300 0	.103 98	1151 -	-0,134				
-	0.421 0.717	1.502	0,100 0.007	0.505	1,009	0.870	1,749 1,871	0,073	0,400	<u>1.191</u>	3,000			0,20/	8.335 -8.174				
-	50 8,497	0,710	93 8,768	8,460	1,778	51 0,917	8.419	0,172	atto	9,495	50 0,495	98 0,867	90 9,436	98	90 A.217	30 0. P00			
-1	0.097 50 0.517	1.040 50 1.674	0.154 58 0.760	0,160 30 0,835	····	-0,010 97 0,911	0,032 91 0,024	-1.186 · · · · · · · · · · · · · · · · · · ·	1,075	1,150 50 0.757	0,299 -1 91 0,299	1,867 -8 58 1,686	187 58 0,104	0,061 90 0,670	0.A35 - 50 A.808	0,051 50 0,721	0.018 30 0.898		
-1	0,014 50 0,923	.223 50 0.117	0,078 30 0,502	0.101 0.477		-0,012 90 0,786	0,124 0,302	0.030 0.040	• • • • • • • • • • • • • • • • • • •	1.113 • 1.197	1,143 ( 71 1,59*	, <b>0 04 0</b> 77 0 , 534	138 - 91 9,389	0,033 0,010	-0.443 90 0.762	0.067 0.540	0.214 9.175	0.198 	
•	·, 2 <u>20</u>	2.174		0,050 ·		1,012	0,102	1.112		1.104 ·			1004 .	1.124	-0,133	0,171	0.129 78	0.161 50	•.73•
٦	0.114	4.212	0.379	0.094		1.11	8.474	0,490	•. • <u>₹</u> 7	0.740	1.741	8,766	0,906	0,379	0.016	0.226	0.362	0.255	Ē
-	IDet			, 	XINTACT				PERSONA	MILC					I BREATION			EDOC.	ATION
	"	10	19	20	21	22	23	*	25	26	27	20	29	30	11	32	23	×	35

1		Stereotype											
1		Bernstive	4.0D										
,		Moral Busiustion	0,233 0,377 0,132 0,077	-									
	Lanco	Bypothetics 1	1,201 1,337 0.510 (7.112										
,	TOPLIC	Peeling	1,294 0,221 0,000 0,121	1.107 0,227	,								
		Action	8,125 8,193 82 82 8,250 8,166		0,178 97 0.122								
,		Total				-							
•		Stereotype	-0,005 -0.079 -0,389 0,514		0,003004 0.453 0,563	0.001 0.400							
,		Normative	-0.104 -0.202 #2 #7 n.346 \$.166	0.045 -4.639 -	0,032010 - 02 02 0,772 0.031	0,071 07 4.523							
10		Moral Breluation	-0,054 -0,003 HZ HZ n,627 8,402	0.137 0.002 87 82 0.226 0.460	0.131 -3.082 07 87 0.237 0.911	0,090 17 0.601		>					
"	100110	Bypothetical	-0.824 -0.041 82 8.826 0.712	0.078 0.136 92 0.478 0.217	8,849144 82 82 8,656 8,192	0.100 0.300			_				
12	THE R	Peeling	0,448 8,654 82 4,446 3,624	8.141 0.132 07 0.201 0.232	0.11. J.17.								
.,		Action	A.144 0.060 92 92 A.191 8.389		1.124124 1.135 CLID		0,068 0,018 02 0,018 0,568 0,928	8.004 8.1 87 8.541 8	91 0.139 Ng Ng 1.171 0.219				
14		Total	-1,817 -8,869 H2 1,881 0,933	1.233 1.117 (1.11)	1.191201 1.171 (11)								
15	1_	Efficacy Cont.	0.024 0.146 02 027 0.165	0.101 0.150 -	0.001107 02 02 0.994 0.000	1. 1-34 45 1 703	0,049 0,164 07 07 0.660 0,136	0,113 0.0 07 0,307 0	21 3.134 #2 #2 .849 8.219	0.054 82 8.628	0,124 07 0,269	_	
1.6	AAL	Efficacy Int .	0,830 -0,895 02 82 8,724 0,391	•3.887 8.824 82 82 9.948 9.828	0.059 -1.071 - 62 82 0.021 0.523	0,014   02 0,077				0,106 82 0.347		0,113 02 0,305	
17	Ì	ME Energe	-9,946 9,035 B2 A2 8,676 8,751	9.120 0.112 - 82 9.276 0.311	0.073 J.146 82 52 0.911 0.184	8,885 82 8,443	1,242 1,800 1,120 1,471	8.997 8.8 8.964 9	42 0.027 42 0.027	0,091	0,110 • 07 0,703	<u></u>	1 11 12. 12.
34		<b>- -</b> t	-0,241 -0,948 Hy -0,948 0,066 0,949	1.000 0.011 · N2 N2 N2 0.421 0.423	0,124 J.103 82 92 0.261 0.070	0.103 -0 0.077	1,007 -1,120 - 12 - 12 - 12 0.421 - 1,244	1112 <u>-1</u> 11 1112-111	.36 3.074 82 3.074 .214 8.393	0,193 . 02 0.165	0,040 82 0,697	•	
19		IP Avoid	0,115 0,513 RI A1 n.302 0.007	8,841 0.100 81 0.100 8.714 0.340	0.245 (.28)	0,301 ( 81 0,147	(1216 1.176) (1710 1.187	8.114 971 81 0.306 9	47 0,203 #1 61 .192 0.200		.294	*1010 81 •,070	0_074 #1 0.503
20		W Income	0.453 0.100 (	1.046 0.156 - 0.554 0.161	0.000 -J.000 0.057 0.393	0,360 ( V.131	0,063 0,000 00 00 0.507 0,426	1,110 -1,1 0,320 0	43 9.152 ·	0,016 88 0.000	0,510	1,492	-22 1.22
21	10VLAD	EF Alter	0,030 -0.217 Hy Hy N,721 0.053	9.012 0.167 - H2 H2 0.916 0.120	1.137 1.213 1.736 (T.13D	8,846 -1 87 8,778	1,836 -9,948 17 82 0,748 0,538	0,025 0.0 0,025 0	22 -0.077 A2 A2 .844 8.488		8,844 82 8,552		····
11		W Anount	8, 193 -8, 097 12 12 1, 402 8, 302	3.884 8.128 - 87 87 8.974 8.244	1.744 (1.27) 1.744 (1.17)	8,874 -1 87 8,394	0,112 -0,140 - 07 07 0,312 0,170	4.072 4.0 97 4.0 4.515 4	56 2.843 87 87 .412 8.696		0.047 • 07 0,673	0,167 87 8,140	.n,131 A2 A,234
13		M Mjey	-0,815 0,057 N2 N2 R,897 0.541	1.334	8.019299 8.000	0,104 -1 0.095		8,042 8.8 NZ 0,579 8	49 -0.150 H2 H2 149 -0.150 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2 H	····· ••••	0,025 - 0,024	0,092 . 82 0,410	
24		46.	0,005 -0,127 78 78 9,570 0,262	-0.078 -0.085 - 78 -0.085 -0.085 - 0.491 0.453	8,138	0,097 ( 78 0.390	1.678 0.626 78 78 8.492 0.816	9,023 -0.0 78 0.034 e	79 -0,034 78 -78 .489 0.787	0.076 78 0.504	0.021 • 76 0.051	1,103	0,001
25	Ľ	Mot. Anomi	••,293 ••,193 ••,193 ••,193 ••,193 ••,193 ••,193 ••,193	-1.002 -0,075 A1 AI 0.004 0.500	n.032 0.124 - UL 124 - 0.772 0.266	0,057 ( 0.010	(1.24) 1.140 (1.22) 1.147	0.530 0 1155 015	85 0 <u>1084</u> 81 81 1863 8.554	0,000 81 0,441	8,294 81 8,044	0,020 01 0,794	1.314 (1.30)
26	PB001A7	Baligion Impor.	0.893 -0.013 77 0.414 0.908	7.886 -8.877 - 77 - 8.968 8.498	0.302 -0.099 -	8,101 •0 8,379	0.091 0.127 77 0.096 0.204	0.147 0.1 77 0.196 0	26 0,191 77 77 .260 0,183	0.413	0,140	0.585	0, 00 77 8, 463
27		Religion Adherence	8,893 -8,913 77 77 	8.886 -8,877 - 77 - 8,877 - 9.965 8.498	0.302	0,10 <u>1</u> -1 0,375	0,051 0,127 77 0,056 0,264	91347 911 77 911 0.196 9	26 0,191 77 0,191 .260 0,183	0,413	0,210	0,925	0,884 77 8,463
20		Solf Change	0,420 8,021 H2 42 4,656 0.450	1.200 0.202 G.110 G.120	0.100 J.327 0.330 J.327		1.012 -0.032 72 02 0.015 0.772	0.039 0.0 NY 0.752 0	87 0.064 87 88 .949 8.541	0.200 GLOLD	0.081 • #2 8.462	0.132 HZ	0,031 A2 8,645
29		Child Rearing	0,195 0,194 H2 H2 H.076 0,161	(1.230 0.07) (1.03D 0.927	0.134 J.119 07 82 0.223 0.279		• • • • • • • • • • • • • • • • • • •	0,032 -0.0 82 0.773 0	67 -0,030 A2 A2 .546 0.727	0,150 • 82 0,150	8,017 • 82 8,876	0,146 0,164	-n. n78 #2 n. 480
30	I BITATIO	Birth Control	-0,463 -0,863 78 - 0,450 - 0,470	(1.34) 1.382 (T.11)(T.11)	0,004178 78 78178 0.070 0.138	8.1.05 1.090	1,000 0,000 70 0,000 0.447 0,030	1.035 1	23 -9.937 78 -9.937 .837 8.742	01096	1,756	1.04	1. 123 
ո	No Iona	Automation	0,005 0,051 H2 B2 0,445 1,647	1.121 0,224 ···································	8,872 **.864 87 82 8.516 8.568	0,892 -1 87 0,484	0.365 01484	1,049 0,1 12 1,001 0	23 0,016 - 89 A2 ,264 0,400	0,044 • 82 0,492	1,008 17 0,743	1,101 1,101	0, M51 82 8,646
¥	ľ	Political Lond.	<u></u>		1.274 J.142	Ц.	1.047 -0.031 - 47 -0.031 - 0.736 0.777	8.831 8.9 82 8.779 8	71 0.87 82 8.87 .523 8.520	8.052 82 0.637	81837 82 8,737	····· _	•0,047 #2 0,671
33		bale Adherence	•0,237 •0.100 82 82 (1,030) 0.324	0.171 0.125 N2 NZ 0.121 0.250	0,030 3.178 07 07 07 0.705 0,104	0,004 ( UZ 0,560	CTD 1,300	0.149 0.1 #7 0.107 0	49 8.429 82 82 .177 8.795	8,094 82 0,395	0,129 0,110	1,000	0.72 0.13
ж		Local Aid	8,850 -8,896 82 82 9,650 8,383	-8.856 -0.894 82 82 8.653 8.394	8,178 -0.014 - ************************************	0,012 0 0,011	1,172 0,195 82 83 0,117 0,076	8.172 8.8 82 8.117 8	36 0,045 - 82 48 .748 0,442	0,046 87 8,688	0,210	8,964 87 8,963	9.12
"	<b>UCATIO</b>	Federal ALd	0,137 0,147 88 80 8.219 0.187	1.344 0.199 (.11) 0.169	0.104 J.997 90 80 9.090 8.304		4.230 1,192	0.234 0.1	11 6.217 .271 CLD	01871 01871		0.195	0.003 #0 0.978
36	[	M. Planning	0,030 0,019 82 82 0,728 0,920	8,301 8,889 82 82 8,198 9,481	0,187 0.186 02 02 0,333 0,898	0,343 ( 0,134	0,103 (1.204	0,140 0.1 87 0.184 0	64 0,263 12 12 127 11	0,152 52 0,167			0.934
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TABLE A.8.--Correlation matrix for the Mexican-American  $${\rm PNR}{}^{\rm l}$ sample.}$ 

<u> </u>	lPare	nts of	the	nonret	arde	ed.
2 0,717 0.370 0.449 0,090 0.218 0.246 0.013 17 0.280 1.218 0.746 1,377 0.1950 0.71220 0.706						
0,000 0.156 0.432 0.022512 12 12 12 12 12 12 12 12 12 12 12 12 12 1						
1,110 0,120 0,221 -1,010						
0.289 0.127 0.090 0.314 0.259 0.380 0.492 <u>0.092 0.075 -0.133 -0.105192 -0.327 -0.064</u> <u>0.092 0.075 10 -0.105192 -0.327 -0.064</u> <u>0.092 0.328 0.334 0.134 0.139 0.235 0.367</u>	8.19 <del>3</del> 77 0,000					
0.107 0.000 0.025 0.103030 0.441 0.143 0.107 0.000 0.030 0.375 0.000 (	<u>8,046 -8,057</u> 76 8,689 0.619					
0,103 0,100 0,025 0,103010 0,223 0,143 77 77 78 0,000 0,378 0,000 (1,223 0,143 0,107 0,000 0,030 0,378 0,000 (1,320 0,200	0.040 -0.057 1.000 76 -0.057 1.000 0.000 0.010 0.010					
	9,003 -0,120 -0,000 78 01 -0,000 -0,000 1,004 0,205 9,439 0,439					
8,020 0,027 -0,039 0,103090 -0,001 0,000 - 87 82 82 81 80 82 82 82 0.000 0.007 0.020 0.337 0,014 0.446 0.430	0,144 0,134 -0,033 -0,023 -0 70 01 77 77 0,203 0.227 0.772 0,772	1,467 87 4,574				
-0,197 0,174 0,940 0,930189 0,005 1,844 - 79 79 79 79 78 77 79 0,017 79 79 79 79 79 79 79 79 79 79 79 79 79	<u>8.178 8.185 -8.143 -6.143 1</u>	1.202 Ling				
0.029 0.044 -0.248 0.076041 0.092 0.057 -	0,100 -0.006 0.200 0.200 0 70 01 77 77	.020 -0,103 -0 62 - 02				
- 0,000 1,000 0,00	0,075 0.040 0.077 0.077 0,159 0.041 40.042 -0.042 (	1.053 0,060 0	1,007 1384 0.0	•		
0,679 0.371 0.559 0.761 0.984 0.642 0.979 -0,000 0.082 -0,010 -0,002 -0.089 -0,074 -0,024 4	0.159 0.712 0.714 0.714 0.159 0.054 -0.220 -0.220 0	0.030 0,534 ( 1,105 0,054 0	1291	. <u>348</u>		
12 52 52 51 50 52 52 52 > 0.940 0.457 0.667 0.463 0.531 0.501 0.627	1.111 (TTO) (1.12) (1.12)	0.342 0,484	1.120 .	102 0.416		
10.023 3.050 0.101 0.007120 -0.137 -0.230 - RZ BZ	0,152 0.034 0.120 0,120 0 78 81 77 0,120 0 0.170 0.733 0.200 0.200	1,004 -0,020 0 07 02 0,445 0,706	110 0.A	14 0.177 0.09 82 82 729 9.106 8.	12	
8,665 5,299 6,122 8,871	0,110 0.130 0.149 0,145 0		,093 .A.A.	10 0.417 0.14	. C.135	
0.539 (1.110) 0.270 0.531 0.437 0.070 0.421 0.047 3.346 0.123 *0.076 *030 0.042 0.010 *	8,338 8,244 8,284 8,284 8,229 8,113 8,241 8,241	0.370 0,131 0.223 0,075 0	<u>0,03/</u>	· · · · · · · · · · · · · · · · · · ·	211 0.235	
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25	2	lduc, Anount		4.494 .271	1(442 211	*. •72 231	9. 47Ā 211	*,*18 231	6.057	4. 892	P.110 231	8,874	1.180		*. * 5 *	0.147	1.029 231	·.10- 211
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27	đ	Beligion Adher.	0.46P 4.429	#.849 -6.817	4,449 8,499 -	8,848 8,831 -	0.667 0.121	8,64A 4,827 -	A.384	8,448 8,448	0,170 0,000	0,939 0,041	0.969 1.073	0,214 0,002	0,399	0.203 0.071 -	0,984 0,934_	* . *1*
20		Jalf Change	0.46P	6.44P	n.945	6,640 7,841	0.867	0.66A	8.584 8.040 -	0.468	0.174	0.939	0.749	0.214	0,399 	1.261	1,984	*.* <u>1</u> /
			212 P.767	278 6.85*	232	1,527	212 0.433	232	1.343		difference of the second secon	232	232	1,433	232	239 0.191	232 0,161	272
"	p.	Child Beering	0.154	712 4.441	232 0.141	232 4.424	1.124	237		232	232 4,741	212	232	232		23p 0.773	8.491 8.491	*.*1* **2 **1*
»	TATE I	Birth Gentrel	.0_17A 299 0.751	-8,699 279 6,077		6,666 229 6,392	•8,147 278 8,525	0,013 270 0,943	4.031 270 8.010	1.057 . 229 1.307	8,818 229 9,879	8.981 - 277 8.985	1,058 299 1,446	é. 136 279 1,399	8,831 279 8,639	1,122 279 1,734	• <b>•</b>	-*.*1* 270 8.***
31		Automation.	0,021 232 0,749	-1, ins 1, i,		4.848 232 8.464					1.118 272 1.499	1,111 272 1,141	8,095 - 232 8,146	0.411 - 232 0.471		232 232 1,245	i.i25 232 1.793	*
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"		hile Adherence	-1.849	1.144	1.747	8.490 232	1.020	-0,166	*. 674 272		1.13		1,247	•	0.002 232	0.227	۰.۰ <u>۴</u>	5.964 275
×		Local Aid	e	8.424	47.691 -	·4.005 232	0.45*	0,319 0,044 237	0.767 1.656 232	4.434 *****	1.13	<u></u>	1.13	i.143	0.047 0.047 232	1.17	0.413 0.430	0.115
"	8	Poderal Aid	•.•?	5,710 8,849,	1.434 1.141	8,857 8,857	1,341 1,134	····	4,394 8,194	0.007 6.001 -	1,447 1,1447	•	0,381 1.043	1,1 <u>1</u> 7 1,1 <u>41</u> -	1,471 1,471	1.1 <u>1</u> 71	1,1 <u>19</u> 7	P.491
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Γ			192 1.11		1.112	232	232	217 1,713	0.444	232	**** ****		832	1,141	112 0,491	232 0.997		232
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TABLE A.9.--Correlation matrix for the total Mexican-American sample.

	10	19	20	n	22	บ	34	25	26	27	24	19	30	31	¥	33	34	35
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-*.197 212 1.561	7.211 C-111	*,00A 231 0.313	P.CON 278 0,994	8.813 737 8.848	F. 080 272 0. 223	*.113 232 8.445	-8,035 228 6,592	0.878 271 8.237				0,010 232 0,777	8,149 879 1,324	1.174 279 1.74m		5	4.05f 232 4.091	
-1,421 277 ,744		.#. 864 279 1.953	1.19i 221	-8,137 238 2,437	-8.919 278 8.768	-e.026 230 0.697	-0,002 218 0,970	8.847 277 8.478	*.184 277 8.117	8,784 277 8,117	8,898 278 8,173		ñ,988 279 8,229	7.437 276 7.414		6, na3 236 7,289	+.634 23L 0.462	
-*.*44 277 *.587	732 8.426	231 0,532	270	-8,884 237 6,944	-8.997 279 8.139	**.111 232 *.**1	228 8,395	231 0.001 0.003	4,43Å 277 4,448	4.830 227 8.648	1.179 232 1.121	0,043 238 0,517	0.013 129 0.039	R.087 242 F.010	.100 -	ñ. r 23 732 r.738		
-1, 144 272 1, 187	278 4,145	231	278 278 8,73A	232 8.964	-P. C64 239 0. 719	232 0,789	226 0,061		297 1,435	227 1,835	232	232	1,964 279 1,322	-0.11" 212 7.179	272			
27, 434 279 4, 464	232 4.570	231	238	239 8.881	232	232	228	231 0.507	297 8.487	227	232 0,114	232		212				
232 A.15A	238 0.413	Ċ	230	239 8,574	232 8,394	232	220		277 8,878	227 0.070	232	232 0,750						
279 5.786	929 9,873	220 0.494	297 0.379	279 1.994	229 8.485	0,355	đ	270	276 0.117	176 0,117	110 0,437	829 8,499	* ***					
272	212 1.404	231 0.531	230	237 0,273	2.777	232	228 8,287		877 1.519	0.510	1.470							
		231 6.323	210 0.120		Ċ		220	231 0.713	277 1.117	227 0.007								
227 4.145	227	226	276	227 0.494	777 0.330	227 0.101	226	287										
207 4.785	277 6.497 5.415	276 8.413 8.834	224 0,876	877 5,494	277 8.338	227 0.101	276 0,887	297 8,976	1.000									
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4	32	37	16	44	34	ó4	49	64	бэ	56	11	39	36	10	33	48	54	57	51	67	50
5	53	51	41	36	33	62	14	61	-57	γž	14	5	52	39	42	29	21	73	08	27	17
6	24	35	17	ЦÇ	40	34	30	62	ćЦ	58	29	75	63	67	54	42	31	41	45	42	61
7	43	50	34	15	50	É4	57	30	24	13	-12	13	24	19	51	44	31	58	52	39	55
8	51	50	53	43	58	58	42	47	49	<u>5</u> 2	30	50	52	57	29	30	15	19	05	13	40
ÿ	60	56	51	49	60	65	51	57	37	48	34	71	27	31	39	40	27	63	57	5 <b>3</b>	52
10	62	54	51	44	71	56	57	ĹЗ	Éć	ιć	5 é	60	69	50	33	36	20	19	34	34	24
11	51	55	38	36	61	65	50	22	38	41	32	69	13	36	54	51	50	75	48	61	63
12	34	24	47	22	38	37	29	29	47	33	34	31	43	18	43	50	45	49	53	46	52
13	43	44	31	43	45	48	47	30	46	31	25	31	46	22	47	51	52	66	31	38	5 <b>3</b>
14	48	49	41	35	62	59	53	50	54	47	7も	63	70	47	47	46	41	37	55	38	52
15	41	50	29	57	47	58	45	39	34	29	37	56	30	16	23	24	30	32	29	30	26
16	51	41	42	20	55	23	30	50	50	48	61	77	51	63	17	29	21	66	-01	25	23
17		23	28	-01	33	56	22	34	36	31	80	42	ЦĘ	21	18	27	15	46	-12	30	24
18	40	44	29	64	40	26	38	57	45	32	43	58	56	52	34	33	28	52	43	27	20
19	50	38	17	30	55	41	38	36	39	24	31	66	33	33	39	37	30	48	08	18	35
20	5ù	40	18	26	33	58	1 ở	27	19	03	12	03	-14	00	15	06	07	49	40	12	00

TABLE A.11.--Item to subscale correlations for seven samples for the ABS-MR: Arranged by subscale or level.

<sup>1</sup>M.S.U. graduate students. December, 1967, N = 88.

 $^{2}$ M.S.U. sophomore education students. January, 1968, N = 633.

<sup>3</sup>Belize primary teachers. January, 1968, N = 523.

<sup>4</sup>Special education and rehabilitation workers.

			7.17			SA	MPLE a	nd S	UBSC	CALES	5 or	LEVE	ELS				U T			
S	E	В	<u>SER</u>	FMR	RCT	FNR	2	E	В	SER	PMR	<u>EST</u>	PNR	S	E	В	SER	PMR	RST	PNR
38	49	53	49	30	70	50	43	53	53	63	52	78	37	64	44	56	63	59	46	45
57	53	62	49	22	75	67	53	48	42	70	63	56	61	74	49	56	72	59	52	37
45	58	56	56	47	71	67	60	55	54	71	59	61	64	43	43	45	45	49	42	52
51	52	52	64	33	74	50	58	57	41	78	76	65	51	43	45	50	51	43	68	37
52	65	44	62	11	62	79	44	.48	47	66	50	78	55	00	37	45	41	40	59	26
49	59	59	62	44	78	61	53	56	45	59	63	54	39	54	49	55	15	48	57	59
54	65	61	67	22	<b>7</b> 2	66	74	66	44	65	48	62	56	51	47	45	37	52	67	43
71	55	61	67	50	50	54	61	53	37	26	53	40	54	56	40	55	51	42	51	40
66	57	60	63	51	37	61	74	63	47	73	63	72	60	46	37	42	37	33	23	49
63	52	55	65	59	33	57	59	51	48	61	58	65	55		37	36	59	52	59	32
51	47	48	57	45	51	41	55	42	47	65	62	60	50	10	36	39	45	15	63	27
60	57	53	53	39	68	55	72	56	50	63	64	59	58		33	38	30	58	59	39
61	50	42	42	42	69	60	64	18	49	24	52	40	51	17	30	-19	12	40	43	04
60	52	50	41	18	51	47	73	41	55	58	73	72	50	68	28	47	64	40	39	23
37	56	58	42	34	63	56	74	46	53	76	Eg	63	53	55	36	39	50	60	40	26
55	54	46	50	31	57	55	64	20	3.9	39	39	47	50	37	33	36	61	68	42	44
-26	-14	07	37	42	30	41	59	43	44	71	66	68	63	37	46	54	47	63	65	47
-19	-24	28	48	25	45	51	-46	-06	52	68	56	69	40	42	32	41	29	· 58	49	32
09	28	15	20	11	23	06	-47	36	47	49	55	53	65	14	40	36	38	30	50	14
16	23	22	-07	24	35	19	51	-02	44	10	27	45	49	52	48	42	36	53	54	31

<sup>5</sup>Parents of mentally retarded.

<sup>6</sup>Regular school teachers.

7<sub>Parents</sub> of nonretarded.

 $^{\rm 8}_{\rm Listed}$  serially. See instrument for actual item numbers.

APPENDIX B

# ATTITUDE-BEHAVIOR SCALE: ABS-MR

MR-ANS: U.S.

#### ATTITUDE BEHAVIOR SCALE--MR

## DIRECTIONS

This booklet contains statments 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 statment.

## Sample 1.

1. Chance of being blue-eyed

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

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

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

- 1. Chance of being blue-eyed
  - 1. less chance
  - 2. about the same
  - (3) more chance

1. less chance

3. more chance

(2) about the same

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

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

Sample 2.

1. Chance of being blue-eyed	2. How sure are you of thi
	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-MR

## Directions: 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
  - 1. less energetic
  - 2. about the same
  - 3. more energetic
- 3. Ability to do school work
  - 1. less ability
  - 2. about the same
  - 3. more ability
- 5. Memory
  - 1. not as good
  - 2. same
  - 3. better
- - 1. more interested
  - 2. about the same
  - 3. less interested
- 9. Can maintain a good marriage
  - 1. less able 2. about the same
  - 3. more able

11. Will have too many children

1. more than most 2. about the same 3. less than most

- 2. How sure are you of this answer?
  - 1. not sure 2. fairly sure
  - 3. sure
- 4. How sure are you of this answer?
  - 1. not sure 2. fairly sure 3. sure
- 6. How sure are you of this answer?
  - 1. not sure 2. fairly sure 3. sure

7. Interested in unusual sex practices 8. How sure are you of this answer?

- 1. not sure 2. fairly sure
- 3. sure
- 10. How sure are you of this answer?
  - 1. not sure 2. fairly sure 3. sure
- 12. How sure are you of this answer?
  - 1. not sure
  - 2. fairly sure
  - 3. sure

## -3-

## ABS-I-MR

<u>Other people</u> 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. fairly sure 2. about the same 3. more likely 3. sure 25. Prefers to have fun now rather 26. How sure are you of this answer? than to work for the future 1. more so than most people 1. not sure 2. about the same 2. fairly sure 3. less so than most people 3. sure

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## 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 38. How sure are you of this answer? of the mentally retarded 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 40. How sure are you of this answer? mentally retarded 1. must be more strict 1. not sure 2. about the same 2. fairly sure 3. meed less strict rules 3. sure

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#### ABS-II-MR

Directions: 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 42. How sure are you of this answer? with other children who are not mentally retarded 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 44. How sure are you of this answer? children who are not mentally retarded 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 46. How sure are you of this answer? children who are not mentally retarded 1. usually not approved 1. not sure 2. undecided 2. fairly sure 3. usually approved 3. sure 47. To be provided with simple 48. How sure are you of this answer? tasks since they can learn very little 1. usually believed 1. not sure 2. undecided 2. fairly sure 3. not usually believed 3. sure 49. To stay overnight at the homes 50. How sure are you of this answer? of children who are not mentally retarded 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 52. How sure are you of this answer? children who are not mentally retarded 1. usually not approved 1. not sure 2. fairly sure 2. undecided 3. usually approved. 3. sure 53. To be hired for a job only if 54. How sure are you of this answer? there are no qualified non-mentally retarded people seeking the job 1. usually approved 1. not sure 2. undecided 2. fairly sure 3. usually not approved 3. sure 56. How sure are you of this answer? 55. To live in the same neighborhood with people who are not mentally retarded 1. usually not approved 1. not sure 2. undecided 2. fairly sure 3. usually approved 3. sure 57. To date a person who is not 58. How sure are you of this answer? mentally retarded 1. usually not approved 1. not sure 2. fairly sure 2. undecided 3. usually approved 3. sure 59. To go to the movies with someone 60. How sure are you of this answer? who is not mentally retarded 1. usually not approved 1. not sure 2. undecided 2. fairly sure 3. usually approved 3. sure 62. How sure are you of this answer? 61. To marry a person who is not mentally retarded 1. usually not approved 1. not sure 2. undecided 2. fairly sure 3. usually approved 3. sure 64. How sure are you of this answer? 63. To be sterilized (males) 1. usually approved 1. not sure 2. undecided 2. fairly sure 3. sure 3. usually not approved

#### 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 70. How sure are you of this answer? appeal 1. not usually so 1. not sure 2. fairly sure 2. not sure 3. sure 3. usually so 72. How sure are you of this answer? 71. To be regarded as dangerous 1. usually so regarded 1. not sure 2. fairly sure 2. not sure 3. notusually 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 76. How sure are you of this answer? personal expenses 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 78. How sure are you of this answer? if he has almost no speech 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 80. How sure are you of this answer? for themselves 1. usual 1. not sure 2. not sure 2. fairly sure 3. sure 3. not usual

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## ABS-III-MR

Directions: Section III

This section contains statments 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 <u>right</u> or usually <u>wrong</u>:

81.	To take a mentally retarded child on a camping trips with normal children	82.	How sure are you of this answer?
	<ol> <li>usually wrong</li> <li>undecided</li> <li>usually right</li> </ol>		1. not sure 2. fairly sure 3. sure
83.	To permit a mentally retarded child to go to the movies with children who are not mentally retarded	84.	How sure are you of this answer?
	<ol> <li>usually wrong</li> <li>undecided</li> <li>usually right</li> </ol>		1. not sure 2. fairly sure 3. sure
85.	To allow a mentally retarded child to visit overnight with a child who is not mentally retarded	86.	How sure are you of this answer?
	<ol> <li>usually wrong</li> <li>undecided</li> <li>usually right</li> </ol>		1. not sure 2. fairly sure 3. sure
87.	To take a mentally retarded child to a party with children who are not mentally retarded	88,	How sure are you of this answer?
	<ol> <li>usually wrong</li> <li>undecided</li> <li>usually right</li> </ol>		1. not sure 2. fairly sure 3. sure
89.	For the government to pay part of the cost of elementary educa- tion for mentally retarded children	90.	How sure are you of this answer?
	<ol> <li>usually wrong</li> <li>undecided</li> <li>usually right</li> </ol>		1. not sure 2. fairly sure 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: 91. For the government to pay the full 92. How sure are you of this answer? cost of elementary education for mentally retarded children 1. usually wrong 1. not sure 2. undecided 2. fairly sure 3. usually right 3. sure 93. For the government to pay the full 94. How sure are you of this answer? cost of a high school education for mentally retarded children 1. usually wrong 1. not sure 2. fairly sure 2. undecided 3. usually right 3. sure 95. For the government to pay part 96. How sure are you of this answer? of the medical costs related to the disability 1. usually wrong 1. not sure 2. undecided 2. fairly sure 3. usually right 3. sure 97. For the government to pay all of 98. How sure are you of this answer? the medical costs related to the disability 1. usually wrong 1. not sure 2. undecided 2. fairly sure 3. usually right 3. sure 99. To be given money for food and 100. How sure are you of this answer? clothing by the government 1. usually wrong 1. not sure 2. undecided 2. fairly sure 3. sure 3. usually right 102. How sure are you of this answer? 101. To mix freely with people who are not mentally retarded at parties 1. not sure 1. usually wrong 2. fairly sure 2. undecided 3. usually right 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 104. How sure are you of this answer? who is not mentally retarded 1. not sure 1. usually wrong 2. undecided 2. faitly sure 3. sure 3. usually right 105. To go to the movies with 106. How sure are you of this answer? someone who is not mentally retarded 1. not sure 1. usually wrong 2. fairly sure 2. undecided 3. usually right 3. sure 108. How sure are you of this answer? 107. To marry someone who is not mentally retarded 1. not sure 1. usually wrong 2. fairly sure 2. undecided 3. usually right 3. sure 110. How sure are you of this answer? 109. To be a soldier in the army 1. not sure 1. usually wrong 2. fairly sure 2. undecided 3. usually right 3. sure 112. How sure are you of this answer? 111. To provide special laws for their protection 1. usually wrong 1. not sure 2. fairly sure 2. undecided 3. usually right 3. sure 114. How sure are you of this answer? 113. To provide special help to get around the city 1. not sure 1. usually wrong 2. fairly sure 2. not sure 3. sure 3. usually right 115. To sterilize the mentally 116. How sure are you of this answer? retarded 1. not sure 1. usually right 2. fairly sure 2. not sure 3. sure 3. usually wrong

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## ABS-III-MR

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

117. To put all mentally retarded 118. How sure are you of this answer? in separate classes, away from normal children 1. usually right 1. not sure 2. not sure 2. fairly sure 3. usually wrong 3. sure 119. To reserve certain jobs for the 120. How sure are you of this answer? mentally retarded 1. usually wrong 1. not sure 2. not sure 2. fairly sure 3. sure 3. usually right
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### ABS-IV-MR

Directions: Section IV

This section contains statments of ways in which people sometimes act toward other people. You are asked to indicate for each of these statments whether you personally would act toward mentally retarded people according to the statment. 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 122. How sure are you of this answer? long trip 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 124. How sure are you of this answer? 123. Have such a person as a fellow worker 1. not sure 1. no 2. don't know 2. fairly sure 3. yes 3. sure 125. Have such a person working 126. How sure are you of this answer? for you 1. no 1. not sure 2. don't know 2. fairly sure 3. yes 3. sure 128. How sure are you of this answer? 127. Live in the next-door house or apartment 1. no 1. not sure 2. don't know 2. faitly sure 3. yes 3. sure 129. Extend an invitation to 130. How sure are you of this answer? a party at your house 1. no 1. not sure 2. don't know 2. fairly sure 3. sure 3. yes 131. Accept a dinner invitation at 132. How sure are you of this answer? his house 1. no 1. not sure 2. don't know 2. fairly sure 3. yes 3. sure

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ABS-IV-MR
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In respect to a mentally retarded person, would you: 133. Go to the movies together 134. How sure are you of this answer? 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 136. How sure are you of this answer? 135 Go together on a date 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 137. Permit a son or daughter to 138. How sure are you of this answer? date this person 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 139. Permit a son or daughter to 140. How sure are you of this answer? marry this person 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 142. How sure are you of this answer? 141. Feel sexually comfortable together 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 144. How sure are you of this answer? 143. Enjoy working with the mentally retarded 1. not sure 1. no 2. fairly sure 2. don't know 3. yes 3. sure 145. Enjoy working with the 146. How sure are you of this answer? mentally retarded as much as other handicapped 1. not sure 1. no 2. don't know 2. fairly sure 3, sure 3. yes 148. How sure are you of this answer? 147. Enjoy working with mentally retarded who also have emotional problems 1. not sure 1. no 2. fairly sure 2. don't know 3. sure 3. yes

MR-ANS: U.S.

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# ABS-IV-MR

In respect to a mentally retarded person, would you: 149. Hire the mentally retarded if 150. How sure are you of this answer? you were an employer 1. not sure 1. no 2. don't know 2. fairly sure 3. sure 3. yes 152. How sure are you of this answer? 151. Want the mentally retarded in your class if you were a teacher 1. no 1. not sure 2. fairly sure 2. don't know 3. sure 3. yes 153. Require the mentally retarded 154. How sure are you of this answer? to be sterilized if you were in control 1. not sure 1. yes 2. don't know 2. fairly sure 3. no 3. sure 156. How sure are you of this answer? 155. Separate the mentally retarded from the rest of society if you were in control 1. not sure 1. yes 2. don't know 2. fairly sure 3. no 3. sure 158. How sure are you of this answer? 157. Believe that the care of the mentally retarded is an evidence of national social development 1. not sure 1. no 2. fairly sure 2. don't know 3. sure 3. yes 159. Provide, if you could, special 160. How sure are you of this answer? classes for the mentally retarded in regular school 1. no 1. not sure 2. don't know 2. fairly sure 3. sure 3. yes

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ABS-V-MR

Directions: Section V

This section contains statements of <u>actual feelings</u> that people may hold toward the mentally retarded. You are asked to indicate <u>how you feel</u> toward people who are mentally retarded compared to people who are <u>not</u> 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:

2. How sure are you of this answer? 1. Disliking 1. not sure 1. more 2. faitly sure 2. about the same 3. less 3. sure 3. Fearful 4. How sure are you of this answer? 1. not sure 1. more 2. fairly sure 2. about the same 3. sure 3. less 6. How sure are you of this answer? 5. Horrified 1. more 1. not sure 2. about the same 2. fairly sure 3. less 3. sure 8. How sure are you of this answer? 7. Loathing 1. not sure 1. more 2. about the same 2. fairly sure 3. 1ess 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 12. How sure are you of this answer? 11. Hating 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. fairly sure 2. about the same

3. sure

3. less

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ABS-V-MR

How do vou actually feel toward persons who are mentally retarded compared to others who are not mentally retarded: 16. How sure are you of this answer? 15. Contemptful 1. not sure 1. more 2. fairly sure 2. about the same 3. less 3. sure 17. Distaste 18. How sure are you of this answer? 1. not sure 1. more 2. fairly sure 2. about the same 3. sure 3. less 19. Sickened 20. How sure are you of this answer? 1. not sure 1. more 2. fairly sure 2. about the same 3. sure 3. less 21. Confused 22. How sure are you of this answer? 1. more 1. not sure 2. fairly sure 2. about the same 3. sure 3. less 24. How sure are you of this answer? 23. Negative 1. not sure 1. more 2. fairly sure 2. about the same 3. sure 3. less 25. At ease 26. How sure are you of this answer? 1. 1086 1. not sure 2. fairly sure 2. about the same 3. sure 3. more 28. How sure are you of this answer? 27. Restless 1. not sure 1. more 2. fairly sure 2. about the same 3. less 3. sure 30. How sure are you of this answer? 29. Uncomfortable 1. not sure 1. more 2. fairly sure 2. about the same 3. less 3, sure

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# ABS-V-MR

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

31. Relaxed

- less
   about the same
   more
- 33. Tense
  - more
     about the same
     less
- 35. Bad
  - more
     about the same
     less
- 37. Calm
  - less
     about the same
     more
- 39. Happy
  - less
     about the same
  - 3. more

32. How sure are you of this answer? 1. not sure 2. fairly sure 3. sure 34. How sure are you of this answer? 1. not sure 2. fairly sure 3. sure 36. How sure are you of this answer? 1. not sure 2. fairly sure 3. sure 38. How sure are you of this answer? 1. not sure 2. fairly sure 3. sure 40. How sure are you of this answer? 1. not sure 2. fairly sure

3. sure

MR-ANS: U.S.

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### 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 statment 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 1. no
  - 2. uncertain
  - 3. yes
- 43. Eaten at the same table together in a restaurant 1. no 2. uncertain
  - 3. yes
- 45. Lived in the same neighborhood
  - 1. no
  - 2. uncertain
  - 3. yes

47. Worked in the same place

- 1. no
- 2. uncertain
- 3, yes
- 49. Had such a person as my boss or employer 1. no
  - 2. uncertain
  - 3. yes
- 51. Worked to help such people without being paid for it 1. no 2. uncertain
  - 3. yes
- 53. Have acquaintance like this
  - 1. no 2. uncertain

  - 3. yes

- 42. Has this experience been mostly pleasant or unpleasant? 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 44. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 46. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 48. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 50. Has this experience been mostly pleasant or unpleasant? 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 52. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 54. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between

# ABS-VI-MR

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

-20-

## ABS-VI-MR

Experiences or contacts with the mentally retarded:

- 69. My children have attended school with children like this
  - 1. no
  - 2. uncertain
  - 3. yes
- 71. Voted for extra taxes for their education
  - 1. no
  - 2. not certain
  - 3. yes
- 73. Worked to get jobs for them
  - 1. no
  - 2. not certain
  - 3. yes
- 75. Have you sexually enjoyed such people
  - 1. no
  - 2. no answer
  - 3. yes
- 77. Studied about such people
  - 1. no
  - 2. yes
- 79. Have worked as a teacher with such people
  - 1. no
  - 2. yes

- 70. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 72. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 74. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 76. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 78. Has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant
- 80. has this experience been mostly pleasant or unpleasant?
  - 1. no such experience
  - 2. unpleasant
  - 3. in between
  - 4. pleasant

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 <u>questionnaire is completely anonymous or confidential</u>, 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 <u>do not omit</u> 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

-22-

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

-23-

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
- 1 Cturnelle and

- 93. Some poeple 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?
  - 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

-25-

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 <u>the most actual experience</u>?
  - 1. blind and partially blind
  - 2. deaf, partially deaf, or speech impaired
  - 3. crippled or spastic
  - 4. mental retardation
  - 5. social or emotional disorders

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 <u>easy</u> 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?
  - 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%

- 104. If you have ever worked with <u>any category</u> of handicapped persons for personal gain (for example, for money or some other gain), what <u>oppor-</u> <u>tunities</u> did you have (or do you have) to work at something else instead; that is, soemthing 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 <u>mentally retarded</u> persons? Considering all of the times you have talked, worked, or in some other way had personal contact with <u>mentally retarded</u> 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

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#### 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 <u>circling</u> the answer you choose.

- 107. It should be possible to eliminate war once and for all
  - 1. strongly disagree
  - 2. disagree
  - 3. agree
  - 4. strongly agree
- 109. Success depends to a large part on luck and fate.
  - 1. strongly agree
  - 2. agree
  - 3. disagree
  - 4. strongly disagree
- 111. Some day most of the mysteries of the world will be revealed by science.
  - 1. strongly disagree
  - 2. disagree
  - 3. agree
  - 4. strongly agree
- 113. By improving industrial and agricultural methods, poverty can be eliminated in the world.
  - 1. strongly disagree
  - 2. disagree
  - 3. agree
  - 4. strongly agree
- 115. With increased medical knowledge it should be possible to lengthen the average life span to 100 years or more.
  - 1. strongly disagree
  - 2. disagree
  - 3. agree
  - 4. strongly agree

- 108. How sure do you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure
- 110. How sure do you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure
- 112. How sure do you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure
- 114. How sure **do** you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure
- 116. How sure do you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure

- 117. Somecay 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
- 119. Education can only help people develop their natural abilities; it cannot change people in any fundamental way.
  - strongly agree
     gree 3.disagree 4. strongly disagree
- 121. With hard work anyone can succeed.
  - 1. strongly disagree
  - 2. disagree
  - 3. agree
  - 4. strongly agree
- 123. Almost every present human problem 124. How sure do you feel about will be solved in the future.
  - 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
- 120. How sure do you feel about your answer?
  - 1. not sure at all 2. not very sure 3. fairly sure 4. very sure
- 122. How sure do you feel about your answer?
  - 1. not sure at all
  - 2. not very sure
  - 3. fairly sure
  - 4. very sure
- your answer?
  - 1. not sure at all 2. not very sure
  - 3. fairly sure
  - 4. very sure

# -30-

#### MENTAL RETARDATION

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

- 125. Which of the following is a preferred method of educating mentally handicapped children:
  - 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 C

CODE BOOK

# CODE BOOK\*

## CROSS-CULTURAL ATTITUDES TOWARD

#### MENTAL RETARDATION: CONTENT, STURCTURE,

#### AND DETERMINANTS

John E. Jordan College of Education Michigan State University July 1, 1968

INSTRUCTIONS FOR USE OF THIS CODE BOOK

- 1. Code 0 for a one column no response, or 00 for a two column no response, or 000 for a three column no response will mean there was No Information, Respondent did not answer, or not Applicable.
- 2. In each case in the following pages the <u>column to the left</u> contains the column number of the IBM card; the <u>second column</u> contains the question number from the questionnaire; the <u>third column</u>(item detail) contains an abbreviated form of the item; and the <u>fourth column</u> contains the code within each column of the IBM card with an explanation of the code.
- 3. Coder instructions always follow a line across the page and are clearly indicated.

<sup>&</sup>lt;sup>\*</sup>This code book contains directions for scoring the 3968 version of the <u>Attitude Behavior Scale</u>: <u>Mental Retardation(ABS-MR)</u>. It is specifically for the United States sample and limited modifications and/or additions are made in certain nations and/or states. <u>Special instructions</u> are devised <u>for</u> <u>each study</u> and must be consulted <u>before scoring</u> that sample.

1

# ABS-MR-Card 1

<u>Col</u>.

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<u>Scale/Item</u>

<u>Item Detail</u>

<u>Code</u>

1,2 face sheet

nation/state

01-19 United States

01- Michigan 02- Kentucky 03- Georgia

# 20-29 Western Europe

20- Germany 21- Denmark

21- Definitatik

# 30-39 Eastern Europe

30- Yugoslavia31- Poland32- Czechoslovakia

# 40-49 Middle East

40- Israel 41- Iran 42- Turkey

50-59 Far East

50- India 51- Japan

# 60-79 Latin America

60- Belize(British Honduras)

- 61- Colombia
- 62- Brazil
- 63- Venzuela
- 64- Costa Rica



ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
3,4	face sheet	Group No. <sup>1</sup>	Administration group <sup>4</sup> Ol to HSU Ed. 200, Jan.1968 16 MSU Medical class Dec.1967
5 <b>-7</b>	ABS -MR	Subject No.	001 Assign at to time of 999 Administration
8	ABS -MR	Card No.	<ol> <li>Scale 1 plus constants<sup>2</sup></li> <li>Scale 2 plus constants</li> <li>Scale 3 plus constants</li> <li>Scale 4 plus constants</li> <li>Scale 5 plus constants</li> <li>Scale 6 plus constants</li> <li>Life and MR scales plus contants</li> </ol>
y	ABS -MR Q81 <sup>3</sup>	Sex	l female 2 male

<sup>1</sup>See <u>Special Instructions</u> sheet for each nation and/or study to ascertain group no. identification. Also see <u>Card 7</u>, col. 70, 71 footnote.

 $2_{\text{Constants refer to first 35 columns of each card. See <u>Card 1</u> for nature of these 35 columns.$ 

<sup>3</sup>See page 21 of the U.S. 3968 version of the ABS-MR scale.

<sup>4</sup>See col. 80 (of all 7 cards) for "interest" or occupational group number. Also see <u>Special Instructions</u> for each study and/or nation.

# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
10	ABS-MR Q-82	age	1 Under 20 2 21 - 30 3 31 - 40 4 41 - 50 5 50 - over
11	ABS-MR Q-83	Educ. Exper. (kind)	<ol> <li>None</li> <li>Elem.</li> <li>Sec.</li> <li>Univ.</li> <li>Other</li> </ol>
12	ABS-MR Q-84	Marital Status	<ol> <li>Married</li> <li>Single</li> <li>Divorced</li> <li>Widowed</li> <li>Separated</li> </ol>
13	ABS-MR Q-85	Religion (affiliation)	<ol> <li>Refuse</li> <li>Catholic</li> <li>Protestant</li> <li>Jewish</li> <li>Other</li> </ol>
14	ABS-MR Q-86	Religion (importance)	1 Refuse 2 None 3 Not very 4 Fairly 5 Very
15	AB3-MR Q-87	Education (amount)	<ol> <li>6 yrs./less</li> <li>9 yrs./less</li> <li>3 12 yrs./less</li> <li>4 Some univ.</li> <li>5 Degree</li> </ol>
16	ABS-MR Q <b>-8</b> 8	Self Change	<ol> <li>Very difficult</li> <li>Slightly difficult</li> <li>Easy</li> <li>Very easy</li> </ol>

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<u>Col.</u>	Scale/Item	<u>Item Detail</u>	Code
17	ABS-MR Q-89	Child rearing practices	<ol> <li>strongly disagree</li> <li>slightly disagree</li> <li>slightly agree</li> <li>strongly agree</li> </ol>
18	ABS-MR Q-90	Birth Control	<ol> <li>Always wrong</li> <li>Usually wrong</li> <li>Probably right</li> <li>Always right</li> </ol>
19	ABS-MR Q-91	Automation	<ol> <li>strongly disagree</li> <li>slightly disagree</li> <li>slightly agree</li> <li>strongly agree</li> </ol>
20	ABS-MR Q <b>-9</b> 2	Political leaders	<ol> <li>strongly disagree</li> <li>slightly disagree</li> <li>slightly agree</li> <li>strongly agree</li> </ol>
21	ABS-MR Q-93	Aid educ. (local)	<ol> <li>strongly disagree</li> <li>slightly disagree</li> <li>slightly agree</li> <li>strongly agree</li> </ol>
22	ABS-MR Q-94	Aid educ. (national)	<ol> <li>strongly disagree</li> <li>slightly disagree</li> <li>slightly agree</li> <li>strongly agree</li> </ol>
23	ABS-MR Q-95	Educ. plan.	1 Church 2 Parents 3 Local 4 National
24	ABS-MR Q <b>-9</b> 6	Religion (adherence)	1 Refuse 2 None 3 Sometimes 4 Usually 5 Almost always

# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
25	ABS-MR Q-97	Rules (follow)	<ol> <li>agree strongly</li> <li>agree slightly</li> <li>disagree slightly</li> <li>disagree strongly</li> </ol>
26	ABS-MR Q-HP-98	HP Contact (Category)	<ol> <li>blind</li> <li>deaf</li> <li>crippled</li> <li>M.R.</li> <li>E.D.P.</li> </ol>
27	ABS-MR Q-HP- <b>99</b>	HP Contact (nature)	<pre>1 studied 2 relative 3 worked with 4 self HP</pre>
28	ABS-MR Q-HP-100	HP Contact (amount)	1 less 10 2 10 - 50 3 50 - 100 4 100 - 500 5 500 - +
29	ABS-MR Q-HP-101	HP Contact (avoid)	<ol> <li>could not</li> <li>very difficult</li> <li>considerably difficult</li> <li>inconvenient</li> <li>could avoid</li> </ol>
30	ABS-MR Q-HP-102	HP Contact (gain)	l No 2 Paid 3 Credit 4 Gain & credit
31	ABS-MR Q-HP-103	HP Contact (% income)	1 no reward 2 less 25% 3 26 - 50% 4 51 - 75% 5 75% - over

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# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	<u>Cc</u>	ode
32	ABS-MR Q-HP-104	HP Contact (alternatives)	1 2 3 4 5	no work none not acceptable not quite acceptable
33	ABS-MR Q-HP-105	MR Contact (amount)	1 2 3 4 5	less 10 10-50 50-100 100-500 500-+
34	ABS-MR Q-HP-106	MR Contact (enjoy)	1 2 3 4 5	no experience disliked not much liked some enjoyed
35	Constant no. (i	.e., 1) required here re	compute	er program.
36	Scale I <sup>2</sup> -Q l	Energy - C <sup>l</sup>	1 2 3	less same more
37	Scale I -O 2	l Energy - I	1 2 3	not sure fairly sure sure
38	Scale I - Q 3	School work - C	1 2 3	less same more

1 The letters "C" and "I" refer to content and intensity respectively, to differentiate the two answers to each question.

 $^2$  See page 2 of the U.S. 3968 version of the ABS-MR scale.

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# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
39	Scale I - Q 4	School Work - I	l not sure 2 fairly sure 3 sure
40	Scale I - Q 5	Memory - C	l not as good 2 same 3 better
41	Scale I - Q 6	Memory - I	l not sure 2 fairly sure 3 sure
42	Scale I - Q 7	Unusual sex - C	l more 2 same 3 less
43	Scale I <del>-</del> Q 8	Unusual sex - I	l not sure 2 fairly sure 3 sure
44	Scale I - Q 9	Good marriage - C	1 less 2 same 3 more
45	Scale I - Q 10	Good marriage - I	l not sure 2 fairly sure 3 sure
46	Scale I - Q ll	Many children - C	l more 2 same 3 less
47	Scale I - Q 12	<b>Many chi</b> ldren - I	l not sure 2 fairly sure 3 sure
48	Scale I - Q 13	Faithful-spouse-C	1 less 2 same 3 more

# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
49	Scale I <b>-</b> Q 14	Faithful-spouse- I	l not sure 2 fairly sure 3 sure
50	Scale I - Q 15	Care of children - C	l less 2 same 3 better
51	Scale I <b>-</b> Q 16	Care of children - I	l not sure 2 fairly sure 3 sure
52	Scale I <b>-</b> Q 1 <b>7</b>	Obey law - C	1 less 2 same 3 more
53	Scale I <b>-</b> Q 18	Obey law - I	l not sure 2 fairly sure 3 sure
54	Scale I <b>-</b> Q 19	Steady work - C	1 less 2 same 3 more
55	Scale I - Q 20	Steady work - I	l not sure 2 fairly sure 3 sure
56	Scale I - Q 21	Works hard <b>-</b> C	1 not as much 2 same 3 more
57	Scale I - Q 22	Works hard - I	l not sure 2 fairly sure 3 sure
58	Scale I - Q 23	Plans future - C	l not as likely 2 same 3 more

# ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	. <u>Code</u>
59	Scale I - Q 24	Plans future - I	l not sure 2 fairly sure 3 sure
60	Scale I - Q 25	Fun now - C	1 more so 2 same 3 less so
61	Scale I - Q 26	Fun now - I	l not sure 2 fairly sure 3 sure
62	Scale I - Q 27	Cruel - C	1 more 2 same 3 less
63	Scale I - Q 28	Cruel - I	l not <b>sur</b> e 2 fairly sure 3 sure
64	Scale I - Q 29	Sexually loose- C	l more loose 2 same 3 less loose
65	Scale I - Q 30	Sexually loose - I	l not sure 2 fairly sure 3 sure
66	Scale I - Q 31	Initiative - C	1 less 2 same 3 more
67	Scale I - Q 32	Initiative - I	l not sure 2 fairly sure 3 sure

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ABS-MR-Card 1

<u>Col.</u>	Scale/Item	Item Detail	Code
68	Scale I - Q 33	Self-support - C	l less able 2 same 3 more able
69	Scale I - Q 34	Self-support - I	l not sure 2 fairly sure 3 sure
70	Scale I - Q 35	MR prefer - C	<pre>1 with self 2 with normal 3 with all</pre>
71	Scale I – Q 36	MR prefer - I	1 not sure 2 fairly sure 3 sure
72	Scale I - Q 37	MR educ C	l not important 2 uncertain 3 important
73	Scale I - Q 38	MR educ I	l not sure 2 fairly sure 3 sure
74	Scale I – Q 39	Strict rules - C	1 more 2 same 3 less
75	Scale I - Q 40	Strict rules - I	l not sure 2 fairly sure 3 sure
80	face sheet	Occupational or interest group	<pre>1 SER 2 elem teachers 3 sec. teachers 4 parents 5 managers/executives 6 laborers 7 students 8 parents: non- retarded</pre>

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# ABS-MR-Card 2

<u>Col</u> .	Scale/It <b>e</b> m	<u>Item Detail</u>	Code
FIRST 35	COLUMNS SAME AS CARD 1 EX	CEPT FOR COL. 8, CARD NO.	
36	Scale II - Q 41	School playground - C	1 not approved 2 undecided 3 approved
37	Scale II - Q 42	School playground - I	l not sure 2 fairly ∎ure 3 sure
38	Scale II - Q 43	Visit homes - C	<ol> <li>not approved</li> <li>undecided</li> <li>approved</li> </ol>
39	Scale II - Q 44	Visit homes - I	l not sure 2 fairly sure 3 sure
40	Scale II - Q 45	Camping trips - C	1 not approved 2 undecided 3 approved
41	Scale II - Q 46	Camping trips – I	l not sure 2 fairly sure 3 sure
42	Scale II - Q 47	Si <b>mp</b> le learning - C	<pre>1 believed 2 undecided 3 not believed</pre>
43	Scale II - Q 48	Si <b>mpl</b> e learning - I	l not sure 2 fairly sure 3 sure
44	Scale II - Q 49	Stay overnight - C	<ol> <li>not approved</li> <li>undecided</li> <li>approved</li> </ol>
<u>Col.</u>	<pre>Scale/Item</pre>	Item Detail	Code
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45	Scale II - Q 50	Stay overnight - I	l not sure 2 fairly sure 3 sure
46	Scale II - Q 51	Parties - C	<pre>1 not approved 2 undecided 3 approved</pre>
47	Scale II - Q 52	Parties - I	1 not sure 2 fairly sure 3 sure
48	Scale II - Q 53	Hired only if - C	l approved 2 undecided 3 not approved
49	Scale II - Q 54	Hired only if - I	l not sure 2 fairly sure 3 sure
50	Scale II - Q 55	Neighborhood - C	1 not approved 2 undecided 3 approved
51	Scale II - Q 56	Neighborhood - I	l not sure 2 fairly sure 3 sure
52	Scale II - Q 57	Date - C	1 not approved 2 undecided 3 approved
53	Scale II - Q 58	Date - I	l not sure 2 fairly sure 3 sure

#### ABS-MR-Card 2

<u>Col.</u>	Scale/Item	Item Detail	Code
54	Scale II <b>-</b> Q 59	Movies - C	l not approved 2 undecided 3 approved
55	Scale II - Q 60	Movies - I	l not sure 2 fairly sure 3 sure
56	Scale II - Q 61	Marry others - C	1 not approved 2 undecided 3 approved
57	Scale II - Q 62	Marry others - I	l not sure 2 fairly sure 3 sure
58	Scale II - Q 63	Sterilized (males) - C	l approved 2 undecided 3 not approved
59	Scale II - Q 64	Sterilized (males) - I	l not sure 2 fairly sure 3 sure
60	Scale II - Q 65	Sterilized (females) - C	l approved 2 not sure 3 not approved
61	Scale II - Q 66	Sterilized (females) - I	l not sure 2 fairly sure 3 sure
62	Scale II - Q 67	Friends - C	l not approved 2 not sure 3 approved
63	Scale II - Q 68	Friends - I	l not sure 2 fairly sure 3 sure

<u>Col.</u>	Scale/Item	Item Detail	Code
64	Scale II - Q 69	Sex appeal - C	l not so 2 not sure 3 usually so
65	Scale II - Q 70	Sex appeal - I	l not sure 2 fairly sure 3 sure
66	Scale II <b>-</b> Q 71	Dangerous - C	l usually 2 not sure 3 not usually
67	Scale II - Q 72	Dangerous - I	l not sure 2 fairly sure 3 sure
68	Scale II - Q 73	Run machines - C	1 not approved 2 not sure 3 approved
69	Scale II - Q 74	Run machines - I	l not sure 2 fairly sure 3 sure
70	Scale II - Q 75	Money,trusted -C	l not usually 2 not sure 3 usually
71	Scale II - Q 76	Honey,trustea - I	l not sure 2 fairly sure 3 sure
72	Scale II - Q 77	No spee <b>ch-</b> C	l not usually 2 not sure 3 usually
73	Scale II - Q 78	No spee <b>ch-</b> I	l not sure 2 fairly sure 3 sure

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ABS-	MR-	Care	d 2

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<u>Col.</u>	<u>Scale/Item</u>	Item Detail	Code
74	Scale II - Q 79	Provide - self - C	l usual 2 not sure 3 not usual
75	Scale II - Q 80	Provide - self - I	l not sure 2 fairly sure 3 sure
30	face sheet	Occupational or interest group	<pre>1 SER 2 elem. teachers 3 sec teachers 4 parents 5 managers/executives 6 laborers 7 students 8 parents: non- retarded</pre>

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<u>Col</u> .	Scale/ Item	<u>Item Detail</u>	Code
FIRST <u>35 CO</u>	LUMNS SAME AS CARD 1	EXCEPT FOR COL. 8, CARD NO.	
36	Scale III - Q 81	Camping trip - C	l wrong 2 undecided 3 right
37	Scale III- Q 82	Camping trip - I	l not sure 2 fairlv sure 3 sure
38	Scale III - Q 83	Movies - C	1 wrong 2 undecided 3 right
39	Scale III - Q 84	Movies - I	l not sure 2 fairly sure 3 sure
40	Scale III - Q 85	Visit overnight - C	l wrong 2 undecided 3 right
41	Scale III - Q 86	Visit overnight - I	l not sure 2 fairly sure 3 sure

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<u>Col</u> .	<u>Scale/Item</u>	Item Detail	Code
42	Scale III <b>- Q</b> 87	MR Party - C	l wrong 2 undecided 3 right
43	Scale III - Q 88	MR Party – I	l not sure 2 fairly sure 3 sure
44	Scale III - Q 89	El. Ed. Cost - C (gov. part)	1 wrong 2 undecided 3 right
45	Scale III - Q 90	El. Ed. Cost - I (gov. part)	l not sure 2 fairly sure 3 sure
46	Scale III - Q 91	El. Ed. Cost - C (gov. all)	1 wrong 2 undecided 3 right
47	Scale III - Q 92	El. Ed. Cost - I (gov. all)	l not sure 2 fairly sure 3 sure

<u>Col</u> .	Scale/Item_	<u>Item Detail</u>	Code
48	Scale III - Q 93	High School Cost - C (gov. all)	l wrong 2 undecided 3 right
49	Scale III - Q 94	High School Cost - I (gov. all)	l not sure 2 fairly sure 3 sure
50	Scale III - Q 95	Medical Cost - C (gov. part)	1 wrong 2 undecided 3 right
51	Scale III - Q 96	Medical Cost - I (gov. part)	1 not sure 2 fairly sure 3 sure
52	Scale III - Q 97	Medical Cost - C (gov. all)	1 wrong 2 undecided 3 right
53	Scale III - Q 98	Medical Cost - I (gov. all)	l not sure 2 fairly sure 3 sure

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## ABS-MR-Card 3

<u>Col</u> .	Scale/Item_	<u>Item Detail</u>	Code
54	Scale III - Q 99	<pre>Food-Clothing - C (money)</pre>	1 wrong 2 undecided 3 right
55	Scale III - Q 100	<pre>Food-Clothing - I (money)</pre>	l not sure 2 fairly sure 3 sure
56	Scale III - Q 101	Parties - C	l wrong 2 undecided 3 right
57	Scale III - Q 102	Parties - I	1 not sure 2 fairly sure 3 sure
58	Scale III - Q 103	Date non-MR - C	<pre>1 wrong 2 undecided 3 right</pre>
59	Scale III - Q 104	Date non-MR - I	l not sure 2 fairly sure 3 sure

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<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
60	Scale III - Q 105	Movies non-MR - C	1 wrong 2 undecided 3 right
61	Scale III - Q 106	Movies non-MR - I	l not sure 2 fairly sure 3 sure
62	Scale III - Q 107	Marry non-MR - C	1 wrong 2 undecided 3 right
63	Scale III - Q 108	Marry non-MR - I	l not sure 2 fairly sure 3 sure
64	Scale III - Q 109	Soldier - C	l wrong 2 undecided 3 right
65	Scale III - Q 110	Soldier – I	l not sure 2 fairly sure 3 sure

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<u>Col</u> .	Scale/Item	Item Detail	Code
66	Scale III - Q 111	Protection - C (laws)	l wrong 2 undecided 3 right
67	Scale III - Q 112	Protection - I (laws)	l not sure 2 fairly sure 3 sure
68	Scale III - Q 113	Around City - C	l wrong 2 not sure 3 right
69	Scale III - Q 114	Around City - I	1 not sure 2 fairly sure 3 sure
70	Scale III - Q 115	Sterilize - C (males)	l right 2 not sure 3 wrong
71	Scale III - Q 116	Sterilize - I (males)	l not sure 2 fairly sure 3 sure

#### ABS-MR-Card 3

<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
72	Scale III - Q 117	Seperate Classes - C	l right 2 not sure 3 wrong
73	Scale III - Q 118	Seperate Classes - I	l not sure 2 fairly sure 3 sure
74	Scale III - Q 119	Reserve Jobs – C	l wrong 2 not sure 3 right
75	Scale III - Q 120	Reserve Jobs - I	l not sure 2 fairly sure 3 sure
80	face sheet	Occupational or interest group	<ol> <li>SER</li> <li>elem. teachers</li> <li>sec. teachers</li> <li>parents</li> <li>managers/executives</li> <li>laborers</li> <li>students</li> <li>parents: non- retarded</li> </ol>

ABS-MR-Card 4

Col.Scale/ItemItem DetailCode

FIRST 35 COLUMNS SAME AS CARD 1 EXCEPT FOR COL. 8, CARD NO.

36	Scale IV-Q 121	Share Seat-C	1 2 3	no don't know yes
37	Scale IV-Q 122	Share Seat-I	1 2 3	not sure fairly sure sure
38	Scale IV 123	Fellow Worker-C	1 2 3	no don't know yes
39	Scale IV-Q 124	Fellow worker-I	1 2 3	not sure fairly sure sure
40	Scale IV-Q 125	Employee-C	1 2 3	no don't know yes
41	Scale IV-Q 126	Employee-I	1 2 3	not sure fairly sure sure

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<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
42	Scale IV - Q 127	Live next to - C	1 no 2 don't know 3 yes
43	Scale IV - Q 128	Live next to - I	1 not sure 2 fairly sure 3 sure
44	Scale IV - Q 129	Party - C	l no 2 don't know 3 yes
45	Scale IV - Q 130	Party - I	l not sure 2 fairly sure 3 sure
46	Scale IV - Q 131	Dinner – C (house)	l no 2 don't know 3 yes
47	Scale IV - Q 132	Dinner – I (house)	l not sure 2 fairly sure 3 sure

25

<u>Col</u> .	<u>Scale/Item</u>	Item Detail	Code
48	Scale IV - Q 133	Movies - C	l no 2 don't know 3 yes
49	Scale IV - Q 134	Movies – I	l not sure 2 fairly sure 3 sure
50	Scale IV - Q 135	Date - C	l no 2 don't know 3 yes
51	Scale IV - Q 136	Date - I	1 not sure 2 fairly sure 3 sure
52	Scale IV - Q 137	Progeny-Date - C	1 no 2 don't know 3 yes
53	Scale IV - Q 138	Progeny-Date - I	1 not sure 2 fairly sure 3 sure

## ABS-MR-Card 4

<u>Col</u> .	Scale/Item_	Item Detail	Code
54	Scale IV-Q 139	Progeny-marry - C	l no 2 don't know 3 yes
55	Scale IV-Q 140	Progeny-marry - I	l not sure 2 fairly sure 3 sure
56	Scale IV-Q 141	Sexual ease - C	l no 2 don't know 3 yes
57	Scale IV-Q 142	Sexual ease - I	l not sure 2 fairly sure 3 sure
58	Scale IV-Q 143	Working with MR - C	l no 2 don't know 3 yes
59	Scale IV-Q 144	Working with MR - I	l not sure 2 fairly sure 3 sure

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<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
60	Scale IV-Q 145	MR <u>VS</u> other-C	l no 2 don't know 3 yes
61	Scale IV-Q 146	MR <u>VS</u> other-I	l not sure 2 fairly sure 3 sure
62	Scale IV-Q 147	MR/Emotion- C	l no 2 don't know 3 yes
63	Scale IV-Q 148	MR/Emotion- I	l not sure 2 fairly sure 3 sure
64	Scale IV-Q 149	Hire MR- C	l no 2 don't know 3 yes
65	Scale IV-Q 150	Hire MR- I	l not sure 2 fairly sure 3 sure

ABS-MR-Card 4

<u>Col</u> .	Scale/Item	<u>Item Detail</u>	Code
66	Scale IV - Q 151	MR in class - C	l no 2 don't know 3 yes
67	Scale IV - Q 152	MR in class - I	l not sure 2 fairly sure 3 sure
68	Scale IV - Q 153	MR Sterilized - C	l yes 2 don't know 3 no
69	Scale IV - Q 154	MR Sterilized - I	l not sure 2 fairly sure 3 sure
70	Scale IV - Q 155	Seperate MR - C	l yes 2 don't know 3 no
71	Scale IV - Q 156	Seperate MR - I	l not sure 2 fairly sure 3 sure

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#### ABS-MR-Card 4

<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
72	Scale IV-Q 157	Care of MR - C (national)	l no 2 don't know 3 yes
73	Scale IV-Q 158	Care of MR - I (national)	l not sure 2 fairly sure 3 sure
74	Scale IV-Q 159	MR-Special class - C (regualr school)	l no 2 don't know 3 yes
75	Scale IV-Q 160	MR-Special class - I	l not sure 2 fairly sure 3 sure
80	face sheet	Occupational or interest group	<ol> <li>SER</li> <li>elem. teachers</li> <li>sec. teachers</li> <li>parents</li> <li>managers/executives</li> <li>laborers</li> <li>students</li> <li>parents: non- retarded</li> </ol>

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ABS-MR-Card 5

Col.Scale/ItemItem DetailCode

FIRST 35 COLUMNS SAME AS CARD 1 EXCEPT FOR COL. 8, CARD NO.

36	Scale V <sup>1</sup> -Q 1	Disliking - C	1 2 3	more same less
37	Scale V-Q 2	Disliking - I	1 2 3	not sure fairly sure sure
38	Scale V-Q 3	Fearful - C	1 2 3	more same less
39	Scale V-Q 4	Fearful - I	1 2 3	not sure fairly sure sure
40	Scale V-Q 5	Horrified - C	1 2 3	more same less
41	Scale V- Q 6	Horrified - I	1 2 3	not sure fairly sure sure

 $^{1}\text{See}$  page 15 of the U.S. 3968 version of the ABS-MR scale.

<u>Col</u> .	Scale/Item	Item Detail	Code
42	Scale V-Q 7	Loathing-C	1 more 2 <b>s</b> ame 3 less
43	Scale V-Q 8	Loathing-I	l not sure 2 fairly sure 3 sure
44	Scale V-Q 9	Dismay-C	1 more 2 same 3 less
45	Scale V-Q 10	Dismay-I	l not sure 2 fairly sure 3 sure
46	Scale V-Q 11	Hating-C	l more 2 same 3 less
47	Scale V-Q 12	Hating-I	l not sure 2 fairly sure 3 sure

<u>Col</u> .	<u>Scale/Item</u>	Item Detail	Code
48	Scale V-Q 13	Revulsion-C	1 more 2 same 3 less
49	Scale V-Q 14	Revulsion-I	l not sure 2 fairly sure 3 sure
50	Scale V-Q 15	Contemptful-C	1 more 2 same 3 less
51	Scale V-Q 16	Contemptful-I	l not sure 2 fairly sure 3 sure
52	Scale V-Q 17	Distaste-C	1 more 2 same 3 less
53	Scale V-Q 18	Distaste-I	1 not sure 2 fairly sure 3 sure

<u>Col</u> .	Scale/Item	<u>Item Detail</u>	Code
54	Scale V-Q 19	Sickened - C	1 more 2 same 3 less
55	Scale V-Q 20	Sickened - I	l not sure 2 fairly sure 3 sure
56	Scale V-Q 21	Confused - C	1 more 2 same 3 less
57	Scale V-Q 22	Confused - I	l not sure 2 fairly sure 3 sure
58	Scale V-Q 23	Negative - C	1 more 2 same 3 less
59	Scale V-Q 24	Negative - I	l not sure 2 fairly sure 3 sure

34

<u>Col</u> .	Scale/Item	<u>Item Detail</u>	Code
60	Scale V-Q 25	At ease - C	l less 2 same 3 more
61	Scale V-Q 26	At ease - I	l not sure 2 fairly sure 3 sure
62	Scale V-Q 27	Restless - C	1 more 2 same 3 less
63	Scale V-Q 28	Restless - I	l not sure 2 fairly sure 3 sure
64	Scale V-Q 29	Uncomfortable - C	1 more 2 same 3 less
65	Scale V-Q 30	Uncomfortable - I	l not sure 2 fairly sure 3 sure

<u>Col</u> .	Scale/Item	Item Detail	Code
66	Scale V-Q 31	Relaxed - C	1 less 2 same 3 more
67	Scale V-Q 32	Relaxed - I	l not sure 2 fairly sure 3 sure
68	Scale V-Q 33	Tense – C	1 more 2 same 3 less
69	Scale V-Q 34	Tense – I	l not sure 2 fairly sure 3 sure
70	Scale V-Q 35	Bad - C	l more 2 same 3 less
71	Scale V-Q 36	Bad - I	l not sure 2 fairly sure 3 <b>sur</b> e

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ABS-MR-Card 5

<u>Col</u> .	Scale/Item_	Item Scale	Code
72	Scale V-Q 37	Calm - C	l Less 2 same 3 more
73	Scale V-Q 38	Calm - I	l not sure 2 fairly sure 3 sure
74	Scale V-Q 39	Нарру – С	1 less 2 same 3 more
75	Scale V-Q 40	Нарру - І	l not sure 2 fairly sure 3 sure
80	face sheet	Occupational or interest group	<pre>1 SER 2 elem. teachers 3 sec. teachers 4 parents 5 managers/executives 6 laborers 7 students 8 parents: non- retarded</pre>

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ABS-MR-Card 6

<u>Col</u> .	Scale/Item	<u>Item Detail</u>	<u>Co</u>	de
FIRST <u>35 COLU</u>	J <u>MNS SAME</u> AS CARD 1 1	EXCEPT FOR COL. 8, CARD NO.		
36	Scale VI-Q 41	Shared Seat - C	1 2 3	no uncertain yes
37	Scale VI-Q 42	Shared Seat - I	1 2 3 4	no experience unpleasant in between pleasant
38	Scale VI-Q 43	Eaten together - C	1 2 3	no uncertain yes
39	Scale VI-Q 44	Eaten together - I	1 2 3 4	<sup>no</sup> experience unpleasant in between pleasant
40	Scale VI-Q 45	Same neighborhood - C (lived)	1 2 3	no uncertain yes
41	Scale VI-Q 46	Same néighborhood - I (lived)	1 2 3 4	no experience unpleasant in between pleasant

39

<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
48	Scale VI - Q 53	Acquaintance - C	l no 2 uncertain 3 yes
49	Scale VI - Q 54	Acquaintance - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
50	Scale VI - Q 55	Good Friends - C	l no 2 uncertain 3 yes
51	Scale VI - Q 56	Good Friends - C	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
52	Scale VI - Q 57	Donated to help - C	1 no 2 uncertain 3 yes
53	Scale VI - Q 58	Donated to help - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>

41

<u>Col.</u>	<u>Scale/Item</u>	<u>Item Detail</u>	Code
60	Scale VI - Q 65	Worked/Pay - C	l yes 2 no
61	Scale VI - Q 66	Worked/Pay - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
62	Scale VI - Q 67	Children/Play - C	l no 2 uncertain 3 yes
63	Scale VI - Q 68	Children/Play - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
64	Scale VI - Q 69	Children/School - C	l no 2 uncertain 3 yes
65	Scale VI - Q 70	Children/School	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>

ABS-MR-Card 6

<u>Col.</u>	<u>Scale/Item</u>	<u>Item Detail</u>	Code
66	Scale VI-Q 71	Extra taxes - C	l no 2 not certain 3 yes
67	Scale VI-Q 72	Extra taxes - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
68	Scale VI <b>-Q</b> 73	Worked/Jobs - C	l no 2 not certain 3 yes
69	Scale VI-Q 74	Worked/Jobs - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
70	Scale VI-Q 75	Sexually enjoyed - C	l no 2 no answer 3 yes
71	Scale VI-Q 76	Sexually enjoyed - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>

43

72	Scale VI - Q 77	Studied About - C	l no 2 yes
73	Scale VI - Q 78	Studied About - I	<pre>1 no experience 2 unpleasant 3 in between 4 pleasant</pre>
74	Scale VI - Q 79	Worked/Teacher - C	l no 2 yes
75	Scale VI - Q 80	Worked/Teacher - I	l no experience 2 unpleasant 3 in between 4 pleasant
80	face sheet	Occupational or interest group	<ol> <li>SER</li> <li>elem. teachers</li> <li>sec. teachers</li> <li>parents</li> <li>managers/executives</li> <li>laborers</li> <li>students</li> </ol>

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ABS-MR-Card 7

<u>Col.</u> <u>Scale/Item</u> <u>Item Detail</u> <u>Code</u>

FIRST 35 COLUMNS SAME AS CARD 1 EXCEPT FOR COL. 8, CARD NO.

Life Situations Scale

36	Life Q 107	Eliminate war - C	1 2 3 4	Strongly disagree disagree agree strongly agree
37	Life Q 108	Eliminate war - I	1 2 3 4	not sure not very sure fairly sure very sure
38	Life Q 109	Luck/Fate - C	1 2 3 4	strongly agree agree disagree strongly disagree
39	Life Q 110	Luck/Fate - I	1 2 3 4	not sure not very sure fairly sure very sure

<sup>&</sup>lt;sup>1</sup>See page 28 of the U.S. 3968 version of the ABS-MR scale. This scale is intended to measure <u>Efficacy</u> or man's sense of control over his environment. See Husen, J. (Ed.) <u>International Study of Achievement in Mathematics</u>. Vol. I, New York: John Wiley and Sons, 1967.

45

<u>Col.</u>	<u>Scale/Item</u>	Item Detail	Code
40	Life Q 111	Science Believe – C	<ol> <li>strongly disagree</li> <li>disagree</li> <li>agree</li> <li>strongly agree</li> </ol>
41	Life Q 112	Science Believe - I	<pre>1 not sure 2 not very sure 3 fairly sure 4 very sure</pre>
42	Life Q 113	<b>Pover</b> ty Eliminate - C	<ol> <li>strongly disagree</li> <li>disagree</li> <li>agree</li> <li>strongly agree</li> </ol>
43	Life Q 114	Poverty Eliminate - I	<pre>1 not sure 2 not very sure 3 fairly sure 4 very sure</pre>
44	Life Q 115	Life/Length - C	<ol> <li>strongly disagree</li> <li>disagree</li> <li>agree</li> <li>strongly agree</li> </ol>
45	Life Q 116	Life/Length - I	l not sure 2 not very sure 3 fairly sure 4 very sure

46

<u>Col</u> .	Scale/Item_	<u>Item Detail</u>	Code
46	Life Q 117	Deserts/Farming - C	l strongļy disagree 2 disagree 3 agree 4 strongly agree
47	Life Q 118	Deserts/Farming - I	l not sure 2 not very sure 3 fairly sure 4 very sure
48	Life Q 119	Educ./Change - C	<ol> <li>strongly agree</li> <li>agree</li> <li>disagree</li> <li>strongly disagree</li> </ol>
49	Life Q 120	Educ./Change - I	<pre>1 not sure 2 not very sure 3 fairly sure 4 very sure</pre>
50	Life Q 121	Work succeeds - C	<ol> <li>strongly disagree</li> <li>disagree</li> <li>agree</li> <li>strongly agree</li> </ol>
51	Life Q 122	Work succeeds - I	l not sure 2 not very sure 3 fairly sure 4 very sure

#### ABS-MR-Card 7

<u>Col</u> .	<u>Scale/Item</u>	<u>Item Detail</u>	Code
52	Life Q 123	Problems Solved-C	<ol> <li>strongly disagree</li> <li>disagree</li> <li>agree</li> <li>strongly agree</li> </ol>
53	Life Q 124	Problems Solved-I	1 not sure 2 not very sure 3 fairly sure 4 very sure

# Mental Retardation Knowledge Scale

54	MR Q 125	Educating MR	1 2 3 4	handwork vocational practical practice
55	MR Q 126 *	Occup. Trainning MR	1 2 3 4	entering high school 2nd year high school last year high school beginning of school

<sup>1</sup>Adapted from Haring, N. S., Stern, G. G., and Cruickshank, W. N., <u>Attitudes</u> of <u>Educators toward Exceptional Children</u>, Syracuse: Syracuse University Press, 1958.

<sup>1</sup> <sup>2</sup> The correct answer to each item is starred. Seven of the items(starred ones) discriminate well between high and low scores on the scale and also have acceptable levels of "difficulty". These items(126, 127, 128, 130, 134, 139, 140) should be used as the MR Knowledge Scale in statistical analysis(see Harrelson, L. A facet theory analysis of attitudes toward the mentally retarded in the Federal Republic of Germany:Content, Structure, and Determinants, unpublished doctoral thesis, Michigan State University, 1969).
Code Book

## ABS -MR-Card 7

48

<u>Col</u> .	Scale/Item	Item Detail	Code
56	MCR Q 127 *	Educ. Goal MR	<ul> <li>* 1 social adequacy</li> <li>2 academic prof.</li> <li>3 occup. adequacy</li> <li>4 occup. adj.</li> </ul>
57	MRQ 128 *	Rejection of MR	<pre>1 poor learning * 2 behavior 3 dirty and poor 4 don't catch on</pre>
58	MR Q 129	Enot. needs MR	<pre>1 stronger * 2 same 3 not as strong 4 no concern</pre>
59	MR Q 130 *	Slow learn <b>er</b> (placement)	<ul> <li>* 1 regular class</li> <li>2 special class</li> <li>3 voc. arts.</li> <li>4 reg. till 16</li> </ul>
60	MR Q 131	Slow learner (in school)	<pre>1 successful * 2 failure 3 leader 4 aggressive</pre>

Code Book

ABS-MR-Card 7

<u>Col.</u>	<u>Scale/Item</u>	<u>Item Detail</u>	Code
61	MR Q 132	Slow learner (grades)	<pre>1 fail if indicated *2 grade to ability 3 grade no concern 4 grade to I.Q.</pre>
62	MR Q 133	Changing IQ	<ul> <li>*1 can change</li> <li>2 no change</li> <li>3 change in older</li> <li>4 change if early</li> </ul>
63	MR Q 134 *	Comp. program MR	<ul> <li>*1 diagnosis</li> <li>2 facilities</li> <li>3 psychiatrist</li> <li>4 organization</li> </ul>
64	MR Q 135	Physically MR	<pre>1 taller 2 shorter 3 heavier *4 average</pre>
65	MR Q 136	MR child	<pre>l look different *2 need special ed. 3 never support self 4 cannot benefit</pre>

Code Book

## ABS-MR-Card 7

<u>Col.</u>	Scale/Item	Item Detail	Code
66	MR Q 137	MR becomes	l craftsman 2 professional *3 semi-skilled 4 unemployable
67	MR Q 138	ED. Handicapped	l average IQ 2 high IQ 3 low IQ *4 varied IQ
68	MCR Q 139 *	Physically MR	<ol> <li>inferior motor</li> <li>superior motor</li> <li>superior physical</li> <li>*4 average motor</li> </ol>
69	MR Q 140 *	Public Reaction MR	1 rejecting *2 some acceptance 3 acceptance 4 covert rejection
70,71	MR Knowledge Scale	Knowledge about <sup>1</sup> MR (16 items)	l to total number correct 16
72	MR Knowledge Scale	Knowledge about <sup>2</sup> MR (7 items)	l to total number correct 16
80	Face sheet	Occupational or interest group	<ol> <li>SER</li> <li>elem teachers</li> <li>sec teachers</li> <li>parents</li> <li>managers/executives</li> <li>laborers</li> <li>students</li> <li>parents: non- retarded</li> </ol>

<sup>1</sup>For U.S. groups 1-16 only (1.e. Ed. 200: 1-15 and Medical Class: no. 16).

<sup>2</sup>The seven "starred" items (1.e. 126, 127, 128, 130, 134, 139, and 140). These seven items should be used as the MR Knowledge Scale.



