BOUNDARY MAINTENANCE AND PERSONALITY TEST SCORE DIFFERENCES BETWEEN OLD ORDER AMISH AND NON-AMISH CHILDREN

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY

Carl Raymond Jantzen

1959

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BOUNDARY MAINTENANCE AND PERSONALITY TEST SCORE DIFFERENCES BETWEEN OLD ORDER AMISH AND NON-AMISH CHILDREN

By
Carl Raymond Jantzen

AN ABSTRACT

Submitted to the College of Science and Arts
Michigan State University of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Sociology and Anthropology

1959

Approved: Chas T Loomis

ABSTRACT

This study is based on differences which have been found between Old Order Amish and non-Amish children in their scoring patterns on standardized psychological tests, implying differences in personality between the two groups. In a sample of 233 Old Order Amish children and 316 non-Amish children, significant differences appeared about 56 per cent of the time in two tests--Aspects of Personality and FIRO-B (Fundamental Interpersonal Relations Orientation in the Behavioral Aspects)--with the use of chi square as the statistical test. However, in controlling for residence--comparing the rural farm Old Order Amish children with the rural farm non-Amish children in the sample--significant differences appeared only 28 per cent of the time. In further controlling for test conditions--comparing only the rural farm Amish and non-Amish who took the tests at the same time and in classrooms with each other--differences were found in 11 per cent of the eighteen possibilities.

Dividing the Old Order Amish group according to whether or not their families had or owned items which are, in general, proscribed for the Old Order Amish (electricity, automobile, radio, telephone, and tractor) showed differences within the group which tended to correspond to the differences between the Old Order Amish and the non-Amish children. Although only a few of the differences were significant, the rural farm sample in general and the rural farm sample controlled for test conditions showed that the mean scores of the Old Order Amish children whose families had one or more of the proscribed items were nearer to the mean score of the non-Amish than was the mean score of the Old Order Amish children whose families had none of these items.

However, weakening boundary maintenance (having one or more proscribed items) seemed to make almost no difference in the patterns of friendship choices. The Old Order Amish children whose families had no proscribed items, as defined in this study, and those Old Order Amish children who had them both chose non-Amish children about 25 per cent of the time. About 50 per cent of the individuals in each group chose at least one non-Amish person in four choices.

This study appears to substantiate the literature on the Old Order Amish by demonstrating that Amish children coming from families who are adopting proscribed practices are also adopting orientations which are closer to non-Amish orientations than are those orientations of the Amish children whose families have not adopted the proscribed practices. A caution is injected, however, with the finding that the adoption of these practices seems to have no particular influence on friendship choice.

Differences in personality between Amish and non-Amish children seem to exist, judging from and if the data in this study are valid. More important, however, seems to be the conclusion that the school experience has a great effect in linking the Amish and non-Amish social systems. This linkage appears to be greatest with those non-Amish who live on farms.

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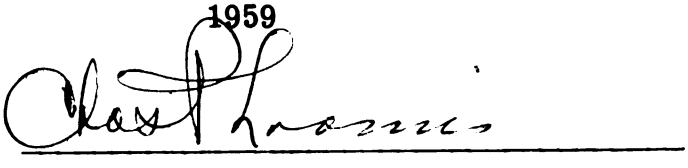
Approved: 

ACKNOWLEDGEMENTS

The writer is indebted to many persons who have contributed in time and ideas to make possible the final form of this thesis. First of all, special appreciation is expressed to Dr. Charles P. Loomis, who inspired the original study and made many important suggestions along the way. Thanks also are due for his having obtained funds to support the study from the United States Public Health Service, Project W108--Anglo-Latino Relations in Hospitals and Communities and from the Carnegie Corporation for a project dealing with intergroup relations. Others who deserve special acknowledgement are:

Dr. J. Allan Beegle for his constructive suggestions and for his understanding and willingness to help.

Dr. John A. Hostetler for his professional guidance in the early stages of the study.

Dr. Archie O. Haller for critically reading the manuscript.

Dr. Charles R. Hoffer for his encouragement at various points along the way.

Harold Goldsmith for methodological and technical assistance and advice, often requested on a moment's notice.

Fellow students and colleagues who were willing to listen to and encourage the writer as he grappled with various problems.

Judith Rathbun, very deserving of special gratitude for typing the final copy of the manuscript.

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CHAPTER I

INTRODUCTION AND BACKGROUND

This study of the Old Order Amish social system is an investigation of the way in which Amish children score on standardized tests of personality and interpersonal relations. Boundary maintenance and systemic linkage are used as conceptual tools in the descriptive analysis. Dividing the Old Order Amish group into those who own or those who do not own certain items facilitates comparisons of Amish test scores with non-Amish test scores and may illustrate both boundary maintenance and systemic linkage.

As a rural, socio-religious sect, the Amish represent a way of life which is quite different from that of modern American society. The successful maintenance of this Amish way of life in a surrounding culture of constant change offers possibilities for the study of certain sociological processes operative in the social system. Using the Loomis and Beegle conception of social system as the patterned interaction of a plurality of individuals,[1] it is possible to see the Amish as constituting one social system in contrast to another, the non-Amish social system. While neither of these systems can achieve complete isolation from the other, each has certain characteristics which tend to keep them partially separate. This means that members of each system will interact more with members of their own system; however, there will also be occasions on which members of the two systems will interact with each other.

Such partial interaction between two social systems often influences change in either one or both of the systems. But the study of

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[1]Charles P. Loomis and J. Allan Beegle, Rural Social Systems (New York: Prentice-Hall, Inc., 1950), pp. 3-5.

social and cultural change must take into account not only the contacts but also the devices which limit contact between two systems. This situation of limited contact provides conditions in which the concepts, boundary maintenance and systematic linkage, can be used.

Boundary maintenance refers to the retention of identity and interaction patterns within a social system, thus giving the system a measure of integration.[1] As an expression of boundary maintenance, the Old Order Amish deny themselves the ownership of certain items or facilities[2] which are widely used in non-Amish society. Systemic linkage, on the other hand, refers to the articulation of two systems so that in some way they function as a unitary system.[3] Through the linkage of Amish and non-Amish social systems and the relaxations of some restrictions, some Amishmen have begun to purchase various of these normally proscribed items. It is hypothesized that the changes in ownership pattern have resulted in social change which will be reflected in the scores of the Amish children.

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[1]Charles P. Loomis and J. Allan Beegle, Rural Sociology: The Strategy of Change (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957), p. 9.

[2]"Facilities may be defined as the means used by the system to attain its ends...For a farm or ranch family, facilities involve property such as equipment, livestock and real estate used in the farming operation." Ibid., p. 7. In this study, the terms "item" and "facility" are used interchangeably; and the terms take on a special meaning in use with the Amish. This will be explained more fully in Chapter III.

[3]Charles P. Loomis, "Systemic Linkage of El Cerrito," Rural Sociology, XXIV (March, 1959), pp. 54-57.

Several studies have attempted to show that the social and cultural differences between Amish and non-Amish children have resulted in differences in the modal personality types of the two groups. However, with what is known about the changing Old Order Amish social system, it should also be possible to predict which of the Amish children are most nearly like the non-Amish children.

The purpose of this study, then, is to demonstrate through the use of statistical techniques that the scores of the Old Order Amish and the scores of the non-Amish not only differ but also that these scores differ in a predictable manner--in line with what is known about the social system of the Old Order Amish. This will be discussed further in Chapter II.

After a brief historical account of the origin of the Amish sect, a description of the Old Order Amish social and cultural systems will constitute most of Chapter I. Chapter II will review the literature on tests of Amish and non-Amish school children, state the problem in more detail, and list the hypotheses. Chapter III will explain the selection of the sample to be used in this study. Chapter IV will present the data for this present study and analyze it in a sociological framework. Chapter V will summarize the study, present conclusions, and offer suggestions for further research.

Historical Background of the Amish

The roots of Amish belief and practice can be traced to the rise of the Anabaptists during the Protestant Reformation in Western Europe. The early decades of the sixteenth century witnessed the growth of at least three factions of dissenters from Catholicism. Several years after Martin Luther touched off the German religious revolt in 1517, the Reformed party, a somewhat more liberal movement, was started by

Ulrich Zwingli in Zurich, Switzerland. In the 1520's, a third religious body, the Swiss Brethren, appeared as the radical wing of Zwinglianism, forming a part of the general movement called Anabaptism. From these three groups arose respectively the Lutheran, the Reformed, and the Mennonite Churches.

The Swiss Brethren felt that, while Luther and Zwingli had made steps in the right direction by breaking with Catholicism, they had not gone far enough in returning to the example of the New Testament Christian Church. Another change demanded by the Brethren was that the church should be a free and independent religious organization, entirely separate from the state and consisting of members who had been baptized as adults upon their confession of faith and commitment to Christian discipleship. Other cardinal principles of the Swiss Brethren as main-line Anabaptists were: The right of every believer to interpret the Bible without an intermediate hierarchy; the insistence upon voluntary association with the church; and the idea of a pure church composed only of individuals whose life and conduct was transformed by the new faith. The Anabaptists were determined to make a break with the social order of their time in order to found a way of life wholly based on New Testament practices. Out of their somewhat literal interpretation of the Bible came also their complete refusal to bear arms, to take oaths, and to hold political office.

Believing the radical ideas of the Brethren to be a threat to its own stability, the Zwingli-controlled church seized upon the practice of adult baptism as being a heresy and used the force of the state against the rapidly spreading movement. The Swiss Brethren came to be known as Anabaptists (a Greek term meaning "rebaptizer"), although, technically, they were not rebaptizers, since they denied that infant baptism was really a baptism at all. However, a more basic reason for objection to being called Anabaptists was that this branded them as heretics from the true

church when they considered themselves to be the true church. In addition, the imperial law code from Justinian's time (A.D. 529) on made rebaptism a heresy punishable by death. The resulting persecution caused the Anabaptists to scatter from the urban centers, where the movement had arisen, into the rural areas of Switzerland and southern Germany. As the movement continued to spread, contact was made with other Anabaptist groups in The Netherlands and Germany. Many of these Anabaptists eventually came to be known as Mennonites, taking their name from Menno Simons, an early Anabaptist leader in The Netherlands and Germany.

The opposition which the movement received from the established churches, as well as from the governments, led to the development of a theology of martyrdom in Anabaptism. The duty of a Christian was seen to be a challenge to the "world," but this meant that suffering would be the inevitable lot of all true believers. In addition to continual persecution by church and state authorities, the Mennonites were also plagued by disagreements over their own church policy and doctrine. Between 1693 and 1697, a major split developed over Meidung, the practice of "shunning," or the avoidance of members who had been excommunicated. Jacob Amman, a conservative Mennonite bishop from Switzerland, called for a stricter observance of the Meidung, insisting that shunning be extended to include social and domestic relations in addition to expelling excommunicated members from the communion table. While such strict observance was new to many of the Swiss Mennonites, Amman found a considerable following; and the adherents to his point of view came to be known as Amish. They remain to this

day a conservative element of the Mennonite movement.[1]

Having been forced through persecution to withdraw to unproductive mountain regions, the Anabaptists devised intensive agricultural methods in order to survive. With the death of many of the leaders, the basic character of the Anabaptist movement changed from that of suffering and martyrdom to that of survival. The remaining scattered groups were content to become "Die Stillen im Lande" (the quiet people of the land). The original Anabaptist enthusiasm for preaching and testifying to the outside world largely disappeared, and a quietistic attitude developed. But, along with this withdrawal came the tendency to "defend" and continue the practice of a life based on the literal interpretation of the Bible.

The results of persecution and war, together with the desire to work out their own ideal of life, led the Amish to migrate to America. The first ones may have come as early as 1720, along with the arrival of other Mennonites into Pennsylvania. The bulk of the eighteenth century migration had arrived by 1754. The earliest known Amish settlements were made in Berks County, Pennsylvania, just north of the large present-day settlement in Lancaster County. The surplus population of the early settlements and the immigrants of the nineteenth century moved

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[1]The main sources of information for this historical portion were the following:

Harold S. Bender, "Amish Division," The Mennonite Encyclopedia, Vol. I (Scottdale, Pennsylvania: Mennonite Publishing House, 1955), pp. 90-92.

Harold S. Bender, "Amish Mennonites," ibid., pp. 93-97.

Harold S. Bender, "Anabaptists," ibid., pp. 113-114.

C. Henry Smith, The Story of the Mennonites (3d Ed., revised and enlarged by Cornelius Krahn; Newton, Kansas: Mennonite Publication Office, 1950), pp. 1-27.

westward into Ohio, Indiana, Illinois, Iowa, and several other states. The present Old Order Amish settlements, consisting of 250 congregations and an adult membership of 17,785, are located in 19 states and in Ontario.[1] The three largest concentrations of Amish today are found in the areas of Holmes County, Ohio; Elkhart and LaGrange Counties, Indiana; and Lancaster County, Pennsylvania.

The Amish still survive as a social system separate from the larger American society through a favorable combination of temporal, environmental, economic, and sociological conditions. At the same time that the Amish needed a place to migrate, America needed migrants. Then there was a sufficient lapse of time during the early years of isolation in America to allow the roots of the Amish belief to become firmly grounded. The continuation of excellent farming practices fostered a material prosperity which was considered a divine blessing for being faithful, thus reinforcing the already firm beliefs.[2] Furthermore, their migration in groups facilitated settlement in compact communities, an important factor in the maintenance of their traditions. The Amish in Europe never lived in compact settlements and were thus in an unfavorable position to withstand pressure toward assimilation with their neighbors. Hostetler sees the lack of compact settlements as an important factor in the complete disappearance of the Amish as a separate socio-religious group in Europe.[3]

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[1] Ellrose D. Zook (ed.), Mennonite Yearbook and Directory 1959 (Scottdale, Pennsylvania: Mennonite Publishing House, 1959), pp. 80-85.

[2] D. Paul Miller, "Amish Acculturation" (unpublished Master's thesis, University of Nebraska, 1950), pp. 148-149.

[3] John A. Hostetler, "Old World Extinction and New World Survival of the Amish: A Study of Group Maintenance and Dissolution," Rural Sociology, XX (September, 1955), p. 213.

However, while the historical development and the value orientation of the Amish in America have been essentially complementary in the maintenance of a way of life, it cannot be said that the Amish constitute a static society, if such a term means no change. Although the Amish have resisted change, they have not been completely successful. Only the fact that the rest of society has changed at a faster pace makes the Amish seem as unique and peculiar today as they were fifty years ago.[1]

Description of Amish Life and People

The Old Order Amish are only one of several groups which are known as Amish. In order to differentiate these divisions, the terms Amish, Old Order Amish, or Old Order House Amish will be used interchangeably to refer to the same group. Where necessary to designate any other Amish division, a specific name--Church Amish or Beachy Amish--will be used. The Old Order Amish are not entirely homogeneous in belief and practice. Differences do exist within church districts and settlements as well as between states. However, for the purposes of this study, the description of Amish life and culture will be general enough to apply to most of the Old Order Amish wherever they are found.[2]

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[1] John A. Hostetler, "The Amish Family in Mifflin County, Pennsylvania," (unpublished Master's thesis, Pennsylvania State College, 1951), p. 212.

[2] One of the most extensive sociological studies of the Amish is reported in the monograph by Walter M. Kollmorgen, Culture of a Contemporary Rural Community: The Old Order Amish of Lancaster County, Pennsylvania, Rural Life Studies, No. 4, (United States Department of Agriculture, September, 1942.) The Kollmorgen study has become a standard and widely used reference work. Comparison of Kollmorgen's findings with works on the Amish in other areas shows a basic similarity in culture and social organization of the Old Order Amish regardless of locality.

See also Peter Gutkind, "The Old Order House Amish People of Northern Indiana," Man, LIII (August, 1953); D. Paul Miller, op. cit.; and John A. Hostetler, "The Amish Family in Mifflin County, Pennsylvania," op. cit.

The Amish are an almost exclusively rural-dwelling group. While their farms are not as highly mechanized as those of their non-Amish neighbors, many Amishmen are highly successful farmers. They often have been in advance of other farmers in the adoption of new methods of rotating crops, applying fertilizer, and developing commercial agricultural products.[1]

Their rural life has been one factor enabling the Amish to retain numerous characteristics of belief and practice which are quite different from those found in the general American society. True to their sect-like character, the Amish make a point of being a "peculiar people," justifying their nonconformity by referring to several Biblical passages (Titus 2:11-14; Romans 12:2) which say that God's people are peculiar and are not conformed to this world. This emphasis on nonconformity and "peculiarity" has resulted in the retention of customs, some of which date back to Reformation times in Europe.

Included in the distinctive content of Amish culture is their insistence on a certain mode of dress and appearance. Amish men and boys wear their hair quite long, parted in the middle, and with bangs over the forehead. Married men must grow a beard; however, a mustache is prohibited. Women are not allowed to cut or curl their hair, and nearly all comb their hair exactly alike; young girls are allowed to braid their hair. There are few variations in style of clothing except for respective sex and age groupings. Those variations that do occur signify the degree of conservatism of the group to which the wearer belongs. Changes from the group standard stimulate application of negative sanctions by the group leaders against the nonconformist.

Amish dress is quite different from the current style of outsiders. Men and boys wear broadfall trousers with plain home-made suspenders. The dress coats have no lapels, have no outer pockets, and are

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[1]Walter M. Kollmorgen, op. cit., pp. 3-4

secured with hooks and eyes. Work clothes, on the other hand, are considered utilitarian and may have buttons and zippers. The males wear broad, flat black hats in winter and broad, flat straw hats in summer.

Women of the same age group wear outer clothing of identical pattern. The only variation is in the color, and no prints are permitted. Married women wear aprons which are either black or match the color of their dress. Unmarried women wear white aprons. All Amish women must wear a white "prayer cap." Even the young girls who have not joined the church wear these caps when attending a worship service or when dressed up to go visiting.

At least two cultural functions involving boundary maintenance are served by the Amish customs of dress: "(1) They provide a constant and easily discriminated stimulus for both the group members and outsiders, which tends to evoke customs appropriate to this particular group; and (2) they tend to represent the symbolic pattern of 'peculiarity' of this culture as based upon the Scriptures."[1]

The usual Amish home is large but simply furnished. There are no curtains at the windows, and only home-made "rag" rugs on the floors. The furniture is of simple design. Electric lights, radios, telephones, and most home gadgets are forbidden. The ban on electricity does not prevent the Amish family from owning refrigerators, power washers, and power lawn mowers, however; the only stipulation is that such appliances be powered by gas or a gasoline engine rather than by electricity.

Horse-drawn carriages take the place of cars for the Amish. In most cases, teams of horses or mules rather than tractors are used for draft power with farm machinery. Occasionally, tractors are allowed for use with belt-power only.

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[1]John Gillin, The Ways of Men, Appleton-Century-Crofts, Inc., New York, 1948, p. 212.

Church services are held every two weeks in the houses of respective members, or in the barns if the house is too small. Men and women occupy separate sections of the room, sitting on backless benches which are transported from place to place for each service. Services last two hours or more and consist of sermons, silent and spoken prayer, and testimonies, mostly from the older men. Bible readings and sermons are in High German, but the rest of the service is usually in Pennsylvania Dutch, a dialect also used for all casual conversation among themselves.

The strength of the Amish life lies in their relative isolation, their dialect, their rejection of many innovations, their social controls, and their family life. Families are large, and a great intimacy with frequent association binds relatives and friends. The ideal of mutual aid helps to stabilize the social order. Their practice of cooperation provides a remarkable system of nongovernmental social security.

Formalized education in rural schools is encouraged, since the Amish realize the value of basic skills in reading, writing, and arithmetic. However, there is objection to the consolidation of school districts and raising the age of compulsory school attendance because the Amish claim that too much education is not only useless but also undermines their isolation.

Commercial entertainment is forbidden, but various sports and games are allowed. Young people attend Sunday night "sings" at the various Amish homes, where they sing folk tunes and hymns. Courtship is rather secret and often confined to late-night dating. Weddings are important social events.

Just how the Amish have been able to resist many modern inventions is often a puzzle to the outsider. Although the Amish often rationalize it as thrift,[1] rather than inherently immoral, the close-knit social system

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[1]Elmer Lewis Smith, The Amish People (New York: Exposition Press, 1958), p. 189.

of the Amish indicates that the unanimity of opinion on how to maintain boundaries--that is, separation from the "outside world"--is more important. The rise of the Beachy Amish Mennonite Church[1] provides an interesting instance of how quickly modern innovations come into the possession of members of the congregation once the permission of leaders is granted. In 1927, Bishop Beachy was losing the fight to reconcile a congregational split over the strict ban. Finally, believing that the opposition to the lenient ban would refuse to compromise, he gave up hope of reconciliation and began to allow some innovations which he had previously tried to hold in check. Prior to the split, the major problem was seen to be interpretation of the ban. However, in retrospect, the Beachy Amish leaders saw that the split was certainly aggravated by those desiring unrestricted use of electricity, automobiles, and other things. Within a month after the split, the Beachy group was holding Sunday School classes (the Old Order Amish do not have Sunday School). Soon after, electricity was allowed, and members were beginning to buy automobiles. After 1927, the Beachy congregation was cut off from fellowship with the other Old Order Amish churches. After about three years, other Amish congregations desiring greater leniency contacted and joined the Beachy Amish. In 1959, the Beachy Amish were listed as having 2,446 church members in 24 congregations in 10 states and the province of Ontario.[2] In each community where a Beachy Amish congregation exists amidst the Old Order Amish, the Beach congregation constitutes linkage or a bridge over which those who are dissatisfied with the strictness of the Old Order group may have greater freedom without discarding many of their social habits.

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[1] Alvin J. Beachy, "The Rise and Development of the Beachy Amish Mennonite Churches," Mennonite Quarterly Review, XXIX (April, 1955), pp. 118-140.

[2] Mennonite Yearbook 1959, op. cit., p. 79.

Numerous other splits over seemingly less important (to the outsider) matters have segmented the Amish, as well as the Mennonites, into groups with varying degrees of conservatism. These numerous divisions constitute a continuum from the very conservative (like the Old Order Amish) to the liberal (General Conference Mennonites). Disagreement over certain practices and interpretations of Amish tradition fosters movement along the continuum to less conservative Amish groups, or even into still less conservative Mennonite churches.

The Amish Value System

The basic values of the Amish social system relate to their "maintaining the Old Order in social and religious life and exhibiting stability and success in a rural way of life, preferably farming."[1] This Old Order in social and religious life demands strict adherence to the cardinal principles of the church--nonresistance; separation from and nonconformity to the non-Amish world or culture; avoidance of unnecessary social contact with outsiders; and avoidance of manifestations of pride. In order to maintain uniformity and harmony in effecting these principles, the Amish church enforces numerous disciplines such as prescription of certain manners of dress and the proscription of owning certain items as mentioned above. Those who abide fully by the rules exemplify the cherished virtues of the community.

The Amish believe the Bible to be the source of all their values, and many of their practices can be supported by scriptural references. However, a danger for the sociologist exists in the tendency to accept Biblical quotations as the rationale for Amish tradition. "Quoting Biblical passages in support of traditions is done by the Amish leaders, but frequently

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[1]Kollmorgen, op. cit., p. 82.

this is not done until some 'out-grouper' makes the observation."[1] It is much more rewarding for the social scientist to view the Amish social system with its beliefs and sentiments as having grown out of years of tradition and persecution rather than interpreting it as existentially reasoned from Biblical sources. While it is maintained that many Amish practices do date from practices introduced by early Anabaptist thinkers and leaders, these practices have become sufficiently institutionalized to be retained as part of the cultural system. The truth of this can be seen in various aspects of the Amish social and cultural system which are only indirectly related to Biblical injunctions. Among these non-Biblical aspects are the emphasis on farming, prohibitions against certain improvements, clothing styles, and others.

Hard work and thrift are basic virtues in the Amish community. Since agriculture is by far the most important occupation among the Amish, the farmer who is successful through hard work and thrift exemplifies these basic virtues. Also, the more valuable the livestock, the better it is cared for; the more productive and fertile the farm, the better it is kept and thus the higher the social rank of the owner. A good farmer further enhances his standing by demonstrating qualities of church leadership. This means that he must familiarize himself with the Scriptures and show that he is in sympathy with church regulations and practices.

Socialization of Amish Young People

Socialization--the transmission of the social and cultural heritage to the children--is the major task confronting the Amish parents. It is largely their responsibility to

> teach values and to create attitudes in the children which will incline them to follow in the footsteps of their forefathers... Children must be told why they cannot have clothes, bicycles,

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[1] John A. Hostetler, Review of The Amish People by Elmer Lewis Smith, Rural Sociology, XXIII, (December, 1958), p. 415.

> and many toys like those of other children; why the family cannot have electric lights, a car, a radio. The total impression of the children must be one of separateness, difference, and one of strong disapproval of the world and all its doings. That the children may understand the religious services and read available religious books, including the Bible, they must be taught to speak and read German.[1]

In elementary school, their garb and appearance continue to impress upon the Amish youth the fact that they are different.

The Amish children are required to accept the occupation of farmer or some closely associated rural work. Discussions in the Amish family take this for granted. "Failure to farm or to engage in some closely related activity is spoken of as failure and perhaps even a disgrace to the family and the community."[2] The children assume responsibility at an early age, and even their play centers around practical farm activity. At the age of eight and nine, boys and girls are already a great help in the house and in doing chores and field work.

The strength of the Amish family has been an important factor in creating the desire to become competent farmers and housewives and, of course, good Amishmen. As a closely knit group living on a farm, the Amish family provides security in a situation which the outside society rarely offers. There are limited occupational opportunities available, and there is very little uncertainty about preparation. The home environment is able to turn the Amish youth into well-trained farmers by the time their non-Amish peers are being graduated from high school. The meaning of cooperation and work is learned early, since Amish families are usually large, and much of the manual work is done in groups. When it comes time to join the church, the reputation of the family aids in demanding that the young person not be a disgrace to his relatives.

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[1] Kollmorgen, op. cit., pp. 58-59.

[2] Ibid., p. 59.

Boundary-Maintaining Mechanisms of Amish Social System

"Boundary maintenance signifies activity to retain the identity, value orientation, and interaction pattern of a social system. The process of boundary maintenance requires that the system actively resist forces which tend to destroy the identity and interaction pattern."[1] It is to a large extent through the erection of boundaries, which resist encroachment of the outside society, that the Old Order Amish have been relatively successful in maintaining their way of life and their social system. In believing they are "God's peculiar people," who must "not be conformed to the world," every act of life becomes one designed to keep the group intact and untouched by meaningful contacts with outside persons. Restrictions on dress, grooming, house furnishings, farm operations and facilities are effective in identification as Amish, both among themselves and to the outside society. Sanctions are thus easily applied to those who attempt to deviate from the cultural and social norms.

The nature of rural life permits some separation from those forces which have long since fostered the assimilation of other sect-like groups into American society.[2] The degree of self-sufficiency as a

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[1] Charles P. Loomis and J. Allan Beegle, Rural Sociology: The Strategy of Change, op. cit., p. 9.

[2] Stanley A. Freed, "Suggested Type Societies in Acculturation Studies," American Anthropologist, LIX (February, 1957), pp. 55-58. Freed points out how the Basques in Idaho and the Russian Molokan community in Los Angeles are examples of groups which failed to maintain boundaries sufficiently to prevent rapid assimilation. Their failure to perpetuate their distinctive cultures, Freed asserts, is due to their failure to develop certain aspects of culture which have helped preserve the Amish culture. These aspects are: (1) A readiness for change in aspects of culture (especially economics) outside the culture focus; (2) Patterns of mutual aid which are manipulated so as to shield the focal aspects of the culture; (3) Strong means of controlling deviants; (4) Strong opposition to secular education; (5) Endogamy; and (6) Possession of a distinctive language (p. 62).

community, which the Amish have been able to maintain, is effective in stabilizing the Amish social system, which in turn makes this degree of self-sufficiency possible. The Amish family is a closely knit unit which provides opportunity in terms of early employment, help in establishing the young farmer, cooperation in farm operations, and security in old age or times of disaster. Deviants from the norms of the Amish social system, however, are threatened with the loss of all of this stability. Furthermore, with a literal belief in heaven and hell, being excommunicated is an awful and solemn exclusion from eternal life in heaven with "God's chosen people."

Of further importance in boundary maintenance is the language spoken. Although all adult Amishmen can and do speak English, the language used in the home is Pennsylvania Dutch (a German dialect influenced by various English elements).

Continual reminders of past persecution, through reading the Martyrs Mirror,[1] have been effective in internalizing expectation of persecution from the outside society. In addition, the Old Order Amish have only to look about them at other Amish groups and those Amish who have "gone gay" (joined Mennonite groups) to see what compromise in "worldly" contacts can do.

Linkage of Amish and Non-Amish Social Systems

The concept, systemic linkage, has become increasingly important in the study of social change. As used by Loomis: "Systemic linkage may be defined as the process whereby the elements of at least two social systems come to be articulated so that, in some ways, they function as a

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[1] The Bloody Theater, or Martyrs' Mirror, of the Defenseless Christians, Who Suffered and Were Put to Death for the Testimony of Jesus, Their Savior, from the Time of Christ until the Year A.D. 1660.

unitary system. Systemic linkage is based upon a model which may be conceived as two or more social systems as going concerns which come to be related in such a way that the two eventually, in some ways and on occasion, function as one."[1]

Decreasing socio-cultural isolation of the Amish social system has brought about increased interaction with non-Amish social systems. Such interaction has led to certain inner tensions and strains which are accentuated by the desire to hold on to the past, while at the same time needing to compromise established tradition.

As a result, there is considerable variation among the Old Order Amish regarding the various proscriptions. Hostetler, for example, in his study of the Amish family,[2] outlines the distinctions between five Old Order House Amish groups in Mifflin County. These distinctions can also be placed on a continuum, ranging from a strict group which does not even allow the wearing of suspenders to those who allow rubber-tired tractors. Such variations are decided upon by the individual Amish congregations and districts, with the opinions of the bishops and preachers an important factor in the decisions to change or not to change. However, even in congregations where tractors and electricity are not permitted, an occasional home with electric lights, or perhaps a tractor in the field, may be noted. In such cases, the Amish families are usually tenants of a non-Amish landlord and explain their more worldly standards by a distinction between personal ownership and mere temporary use of worldly devices. Such a dichotomy allows cultural alternatives and compromises which tend to undermine isolation. It is this same dichotomy which allows

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[1]Charles P. Loomis, "Systemic Linkage of El Cerrito," op. cit., pp. 54-55.

[2]John A. Hostetler, "The Amish Family in Mifflin County, Pennsylvania," op. cit., pp. 251-258.

the Amish people to accept rides in automobiles, while yet refusing to purchase them. Or, again, it enables them to hire a tractor and baler outfit to bale their hay without owning the machinery itself. Another seeming inconsistency is the proscription of telephones in the house, while allowing a phone booth at the end of the lane.

Loomis notes that the partial utilization of such items as the automobile, tractor, and telephone by those Amish who are not allowed to own them is based directly on the Amish view of the goal of their social system and the activity related to realizing that goal. He hypothesizes that "goal-attaining activity in the external patterns can utilize those items in those ways which will not plunge the sect into deep contact with the outside world; that it must eschew those items which would tend to set up a rapid interaction with the outside world, even though their use might sizeably increase profits."[1]

But there are also other ways in which the Amish social system is linked to the outside society. Property ownership means that taxes must be paid to the government. Farm products are sold in a non-Amish market, and there is a dependency on the general economy of the area and the state. Prohibitions against the ownership of certain essential items for use on the farm may create hardship for the Amish in competing with non-Amish farmers who are not hindered by such rules. Modification of standards by dairy companies, for instance, may require changes in practice. If the Amish farmer is unwilling to change, he must either stand the loss or get out of dairying. The use of horse-drawn carriages on highways has prompted the passing of state laws requiring proper lighting on the vehicles at night. The

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[1]Charles P. Loomis, Systemic Sociology--Essays on the Persistence and Change of Social Systems (Princeton, New Jersey: D. VanNostrand Co., forthcoming), see Essay 5, "The Old Order Amish as a Social System."

same highways bring in cars and buses full of tourists who are attracted to the strange sights of Amish life.

There are various specialized agencies that serve and function for the benefit of the farmer. Cooperatives and cattle-breeding associations bring the Amish and non-Amish into close contact. Thus far, the Amish have managed to resist participation in most governmental programs of subsidies and financial loans to agriculture; however, this area of linkage with the larger society has not been free of problems.

With the retreat from self-sufficiency and into commercialization, the Amish farmers necessarily interact directly with many non-Amish people. Bread routes running through some Amish communities have greatly decreased the amount of baking which formerly needed to be done in the homes. While the Amish have not forgotten their vegetable gardens, grocery and meat trucks have many patrons in Amish communities. Marketing practices for farm products have become increasingly centralized with a growing tendency for eggs, poultry, cattle and other marketing to be done at a central auction or cooperative association. Practically all bulky products marketed from the farm or needed on the farm are conveyed by trucks. Commercial truckers are numerous and are constantly being hired by Amish farmers.

The growing industrialization of cities near the Amish areas has resulted in the building of factories and industrial facilities on what was formerly farm land. As the population increases, urbanization expands, and many city workers now live in what had been rural villages and towns. This expanding urbanization not only brings increased contact with the non-Amish but also intensifies the land problem for the Amish. With the large size of Amish families, the Amish ideal of helping to establish the children on the soil creates a growing land pressure. If the size of Amish farms are to remain above the marginal level, the young people must either move elsewhere or find work with non-Amish employers.

The problems surrounding the maintenance of boundaries while the Amish children are at a formative age receives a special focus in their interaction with non-Amish children in school.

The School Issue

One of the deepest concerns of recent years has been the school issue. Away from the supervision of the home, some Amish children spend the entire day with non-Amish children. Increasing the age requirements and the length of the school term fostered Amish resistance to some of the education laws. Consolidation of districts and the abandonment of the one-room country school brought further resistance and continues to create problems for local school boards and the Amish alike.

Amish parents want their children to receive an elementary education; however, an elementary school ability to read, write, and carry on simple arithmetic transactions is considered sufficient. With consolidation of schools and compulsory attendance beyond the eighth grade, the Amish see certain conditions which they view as cause for alarm. Their opposition to formal instruction beyond the eighth grade seems to be based on several reasons. Hostetler's listing[1] of the most prominent reasons found in the literature of court cases on the school issue is instructive, both concerning the school issues and the values of the Amish. The following are some of the reasons given:

(1) Children are needed for agricultural farm labor, and farming does not require higher education.

(2) Practical experience in farming is better than "book farming."

(3) Amish association with non-Amish children in high school ages leads to smoking, drinking, loose morals, and eventually less interest in the church.

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[1] John A. Hostetler, "The Amish Family in Mifflin County, Pennsylvania," op. cit., pp. 88-91.

(4) Education beyond the elementary level leads the Amish child to become interested in vocations other than farming and is therefore contrary to the cardinal belief that young people should remain on the farm.

(5) Higher education is contrary to the teaching of the forefathers.

(6) The German language can be taught more successfully if children are free from attending school after the age of 14.

According to Hostetler, chief among these various factors of Amish opposition

> is the desire to isolate their children from secular influences. The move toward school consolidation, where Amish children would need to mingle with large numbers of pupils from urban areas, is not desirable according to the Amishman. The Amish pupils would not feel at home in the larger school buildings where there are movies, competitive athletic sports, showers and gym suits. The social pressure brought to bear on Amish pupils and parents during wartime, since they hold to the principle of nonresistance, also added to their dislike for any further entanglements in "worldly" things.[1]

The Amish opposition to consolidation and high school is quite functional in terms of the preservation of their social and cultural systems, since youth is such a critical age group. When Amish young people reach the age group of 15-17, they are urged to become members of the church. Being baptized and formally joining the church is usually an indication that the young person is ready to settle down and accept the restrictions and the security of Amish life. However, such a late baptism allows Amish youth to get a taste of the "world" before they can be threatened with the loss of church membership. Having tasted, they may not want to return. The temptation is to "take a fling"--see a movie, buy a car, etc.--and is sometimes so strong that there may be a disinclination to join the church.

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[1] Ibid., p. 94.

The critical age period for the Amish youth reaches its peak just before marriage. Becoming married signifies a transition from a certain freedom of movement to strict obedience. The Amish way of life is viewed by its younger members with increasing skepticism; for them, it is one of great effort, demanding conformity, unnatural isolation, and little reward in a secular world. An early marriage at about 20 years of age is much desired by the elders , as marriage usually checks or dissipates the "wildness" of the youngsters.

Summary

The sociological importance of the Amish stems from their cultural patterns which have been retained with little change for over two centuries. Their manner of dress, their traditions and customs, their social organization, their value system, and their religion have undergone relatively little alteration since they left Europe in the eighteenth and nineteenth centuries. Furthermore, their way of life has been successfully maintained in a surrounding culture of constant change.

The understanding of the slow rate of change in the Amish social system must take into account the boundary-maintaining character of that system. However, the boundaries which have been erected can also focus attention on the "outside world." Interaction with the larger American society has increased as the Amish communities have become less isolated. This interaction has been instrumental in the introduction of change in the Amish social system.

CHAPTER II

REVIEW OF LITERATURE AND HYPOTHESES ON TESTING OF AMISH CHILDREN

Personality Tests of Amish and Non-Amish School Children

Amish school children have figured in several studies purporting to demonstrate that membership in a unique religious sect has an effect on personality. These studies have made use of standardized testing procedures, and, while differences between the Amish and non-Amish school children are reported, many of these differences have been small.

Of the four such studies known to this writer, two were reported in professional journals and two were the subjects of Master's theses. These four studies will be reviewed here briefly to serve as background for the present study.

1. Engle Study -- The earliest of the studies reported here was made by T. L. Engle and Eleanor Engle[1] in the Amish area of northeastern Indiana in 1942. The Engles noted that their university classes were frequently attended by teachers who had taught in schools attended by both Amish and non-Amish children. An opinion often expressed by these teachers was that, because of their unusual customs, "most Amish children are quite maladjusted, that they tend to feel themselves to be 'peculiar,' and that they are excessively submissive and introverted."[2] In attempting to measure the effect of "unusual customs" on the personality of the Amish

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[1] T. L. and Eleanor Engle, "Attitude Differences Between Amish and Non-Amish Children Attending the Same Schools," The Journal of Educational Psychology, XXXIV (April, 1943), pp. 206-214.

[2] Ibid., p. 206.

the Engles administered a personality inventory called Aspects of Personality.[1] This inventory was designed to measure three aspects of personality: Ascendance-submission, extroversion-introversion, and emotional stability. In most cases, a higher score in each of these three categories indicates a more satisfactory adjustment than does a lower score. The following table is a compilation of the scores which the Engles obtained for seventh and eighth graders:

TABLE 1. Mean Scores by Test Category in Aspects of Personality for Seventh and Eighth Grade Amish and Non-Amish School Children, as found by Engle Study in Northeastern Indiana [a]

		Test Category					
		Ascendance-Submission		Extroversion-Introversion		Emotionality	
Group Tested	No. of Subjects	Mean Score	Diff.	Mean Score	Diff.	Mean Score	Diff.
BOYS							
Amish	21	10.7		18.8		27.7	
Non-Amish	27	13.4	+2.7	20.5	+1.7	27.9	+0.2
GIRLS							
Amish	15	11.4		18.4		25.4	
Non-Amish	18	13.1	+1.7	21.8	+3.4	25.3	-0.1
GROUP							
Amish	36	11.0		18.6		26.6	
Non-Amish	45	13.5	+2.5	21.0	+2.4	26.9	+0.3

[a] Compiled from T. L. and Eleanor Engle, "Attitude Differences Between Amish and Non-Amish Children Attending the Same Schools," The Journal of Educational Psychology, XXXIV (April, 1943), pp. 206-214.

In each case except one (girls in Emotionality), the non-Amish mean was higher than the Amish mean score. The Engles thus concluded

[1] Rudolf Pinter, et al, Aspects of Personality (Yonkers-on-Hudson, New York: World Book Company, 1937). A description of the three sections in this test may be found in Chapter III.

that "belonging to a religious sect which insists upon unusual customs... does seem to produce personality patterns which are somewhat different from the personality patterns of other children, at least insofar as such patterns are measured by a personality inventory."[1]

2. Schlamp Study -- In 1952, Fredric Schlamp[2] made a study in the Amish area of Mifflin County, Pennsylvania. Fifty children of Amish parents were selected from four different schools. These children were matched with fifty children of non-Amish parents with rural backgrounds similar to that of the Amish parents. Five psychological tests were administered. Among these five was the California Test of Personality. Schlamp hypothesized that differences between Amish and non-Amish children would be found and that differences could be related to specific differences in rearing and societal patterns. With the California Test of Personality, the Amish were found to differ from the non-Amish control group in at least the following four ways:

> (a) The Amish children feel more constriction of personal freedom.
>
> (b) The Amish children are significantly more free from nervous symptoms.
>
> (c) The Amish children show significantly less understanding of the accepted social standards of American society.
>
> (d) The Amish have less skill and practice in the social niceties of everyday life.[3]

The differences were found in individual sections of the test. In overall scores on the California Test of Personality, however, Schlamp found no significant differences.

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[1] T. L. and Eleanor Engle, op. cit., pp. 213-214.

[2] Fredric Thuman Schlamp, "A Study of Differences in Children of Amish and Non-Amish Societies as Revealed by Psychological Tests," (unpublished Master's thesis, Pennsylvania State College, 1952).

[3] Ibid., pp. 49-50.

3. Stuffle Study -- The third study reported here was made by Clarence Stuffle[1] in 1955. The test sample consisted of thirty Amish children and thirty non-Amish children in the fourth, fifth, and sixth grades of a small-town school in southwestern Indiana. The problems investigated included: (1) finding the degrees of personality adjustment of the pupils under consideration, (2) comparison of the two groups, and (3) a determination of the areas of maladjustment. Stuffle used three tests--Aspects of Personality, California Test of Personality, and the Washburne S-A Inventory.

On all of these tests he found an adjustment which was below normal for both Amish and non-Amish groups, with the non-Amish slighly higher in degree of adjustment. Stuffles' findings tend to support those of the Engles and Schlamp. Table 2 contains a compilation of scores based on information given by Stuffle in his thesis.[2] According to these computed scores, as

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[1]Clarence R. Stuffle, "A Comparison of the Adjustment of Amish and non-Amish in VanBuren Township Schools," (unpublished Master's thesis, Indiana State Teacher's College, 1955).

[2]Stuffle does not give the actual mean scores which he found. The scores given in Table 2 were computed from summary tables of Stuffle's thesis (pp. 136-138), where he listed the number of undesirable responses. Subtracting the number of undesirable responses from the total number of possible responses for each category (35 items multiplied by the number of children taking the test) and dividing the remainder by the number of children should result in the mean score if all of the items had been completed. The only possible checks which Stuffle gives for the mean score computed in this manner are the percentiles of adjustment which he gives. However, he does not indicate whether these percentiles are the norms for the test given in the test manual or whether these percentiles were computed on the basis of his own group. A comparison of scores based on the percentile norms given in the test manual with the mean scores computed from his list of undesirable responses shows a wide divergence. On the assumption that he may have computed his own percentiles, mean scores used here are the ones based on the list of undesirable responses. It is possible that even these may not be the true ones, since it is not really known whether the tests were all completed.

TABLE 2. Mean Scores by Test Category in Aspects of Personality for Fourth & Sixth ~~Seventh and Eighth~~ Grade Amish and Non-Amish School Children, as found by Stuffle Study in Southwestern Indiana [a]

		Test Category					
		Ascendance-Submission		Extroversion-Introversion		Emotionality	
Group Tested	No. of Subjects	Mean Score	Diff.	Mean Score	Diff.	Mean Score	Diff.
BOYS							
Amish	15	16.5		19.8		21.2	
Non-Amish	15	15.4	- 0.9	21.7	+1.9	24.9	+3.7
GIRLS							
Amish	15	14.6		19.0		22.0	
Non-Amish	15	18.0	+3.4	22.3	+3.3	21.7	- 0.3
GROUP							
Amish	30	15.5		19.4		21.6	
Non-Amish	30	15.7	+0.2	22.0	+2.6	23.3	+1.7

[a]Calculated from Clarence Stuffle, "A Comparison of the Adjustment of Amish and Non-Amish in VanBuren Township Schools," (unpublished Master's thesis, Indiana State Teachers' College, 1955), pp. 136-138.

shown in the table, the Amish boys score higher in Ascendance-Submission, and the Amish girls score higher in Emotionality. On the group scores with the sexes combined, the non-Amish mean score is higher in all three categories. However, Stuffle bases his conclusions also on the percentiles of adjustment. According to these percentiles, the Amish score higher for both sexes and, by group, in Ascendance-Submission and Emotionality. Yet, in spite of the fact that the Amish have a higher percentile of adjustment in two categories (tending toward a higher score), they apparently have a larger number of undesirable responses in each category (tending toward a lower score). Stuffle fails to explain this apparent contradiction. On the California Test of Personality, Stuffle

also finds more undesirable responses for the Amish pupils than for the non-Amish pupils. From his observations, Stuffle concludes:

> (a) There is evidence of considerable maladjustment among the pupils considered herein, as measured by the various tests.
>
> (b) The Amish showed better adjustment on such items as Sense of Personal Freedom, Feeling of Belonging, Family Relations, Extroversion-Introversion, Impulse Judgement, Spatial Relationships, and Non-Language Factors. The non-Amish seemed to excel in Language Factors, Control, Ascendance-Submission, Self-Reliance, Sense of Personal Freedom, Withdrawing Tendencies, Nervous Symptoms, Social Skills, Occupational Relations, and Community Relations.[1]

4. Smith Study -- The most recently reported (1958) of the four studies considered here was carried out in Lancaster, Pennsylvania, by Elmer L. Smith.[2] The research design of Smith's study seems to closely approximate that of the Engles', although Smith does not mention the earlier study. Smith used two rural schools, attended by both Amish and non-Amish pupils, and reported data on Aspects of Personality for the seventh and eighth grades. His findings, summarized in Table 3, closely approximate those of the Engle study.

Similar to the conclusions made by Engle, Smith states that "membership in a unique religious sect seems to produce personality patterns somewhat different from those of the more typical American society."[3]

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[1] Ibid., p. 97.

[2] Elmer Lewis Smith, "Personality Differences Between Amish and Non-Amish Children," Rural Sociology, XXIII (December, 1958), pp. 371-376.

[3] Ibid., p. 376.

TABLE 3. Mean Scores by Test Category in Aspects of Personality for Seventh and Eighth Grade Amish and Non-Amish School Children, as found by Smith Study in Lancaster County, Pennsylvania[a]

Group Tested	No. of Subjects	Test Category: Ascendance-Submission Mean Score	Diff.	Extroversion-Introversion Mean Score	Diff.	Emotionality Mean Score	Diff.
BOYS							
Amish	58	16.1		21.2		23.6	
Non-Amish	48	18.9	+2.8	25.0	+3.8	24.6	+1.0
GIRLS							
Amish	62	13.3		18.9		24.0	
Non-Amish	60	14.8	+1.5	21.4	+2.5	24.6	+0.6
GROUP							
Amish	120	14.7		20.1		23.8	
Non-Amish	108	16.8	+2.1	23.2	+3.1	24.6	+0.8

[a]Compiled from Elmer L. Smith, "Personality Differences Between Amish and Non-Amish Children," Rural Sociology, XXIII (December, 1958), pp. 373-374.

Implications of Amish Scores on Personality Tests

All of the four studies reviewed found that the mean scores of the Amish group differed from the mean scores of the non-Amish group in spite of variations in methods of testing and interpretation.[1] Some of the findings

[1]None of the four studies makes mention of each other in spite of the fact that two of them use the California Test of Personality, and three of them use Aspects of Personality. The omission of reference to an earlier study is most noticeable in the Smith study in 1958, which is styled much like the Engle study, as reported in 1943. Smith does, however, make mention of the Engle article in his book, The Amish People, op. cit., p. 108.

seem to be contradictory. Stuffle, for instance, found a higher degree of adjustment among the Amish than he found for the non-Amish on two categories of Aspects of Personality. However, judging from the apparent incompatibility between the scores based on his list of undesirable answers and his conclusions based on percentiles, it seems either that the tests given to the pupils were not entirely completed or that he does not give certain information necessary for the interpretation of the results.[1] With the exception, then, of Stuffle's findings, the Amish have tended to rank below the non-Amish in adjustment if these tests can be considered valid.[2]

Those who are familiar with Amish culture, as well as with the methods of standardized testing procedures, may have criticisms of the findings. Dividing schools into Amish and non-Amish populations means that the largely rural Amish may be compared with a non-Amish population which may be, to a great extent, rural non-farm, or town. This may partially account for the fact that Schlamp, the only one to select a completely rural non-Amish group, found fewer differences on the California Test of Personality than did Stuffle. Of course, another possible source of difference between the two studies may have been a variation in age and grade of the subjects tested. While Stuffle tested grades four to six, Schlamp does not indicate which grades he used. Still another possible source of difference is the degree of conservatism manifested by the various Amish congregations, which were involved through the children, assuming that such conservatism influences the responses on such tests.

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[1] See footnote 2 on page 27.

[2] Table 1 in Appendix summarizes the group data for the three studies using Aspects of Personality and compares the mean scores on these studies, with the mean scores obtained for the present study.

The importance of the four studies just reviewed for this present study lies in the proposition which each of the four studies attempts to demonstrate. This proposition is that the "peculiarity" of the Amish children, which is manifest in their dress and appearance and their customs, reflects a different set of attitudes and orientations in the world. While the difference seems to be slight in terms of score on any one test, the direction is consistent enough to warrant the following generalization: Whatever factors may be operating to guide the child in choosing one way of answering a question or selecting a statement rather than another, the Amish/non-Amish dichotomy is, tentatively at least, a reflection of these basic differences. If this generalization is true, further testing of Amish and non-Amish children should continue to produce findings which manifest differences similar to the ones found by the Engles, Schlamp, Stuffle, and Smith. In a sense, this difference in score, which seems to occur concomitantly with difference in orientation, can be looked upon as an index of orientation.[1] If the tests actually measure that which they are designed to measure, this difference in orientation and score could imply a difference in personality between Amish and non-Amish children.

However, there seems to be another possibility which may or may not mean personality differences. Critics of standardized testing have pointed out that the testee, who responds to statements in such tests, tends to respond in terms of what he deems socially acceptable rather

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[1] As used in this study, orientation refers to the awareness which a person has of his temporal, spatial, cultural, social, and personal relationships. This combination of factors presumably serves to influence one person to respond slightly differently from every other person in any situation. However, the more nearly alike these factors are for any group of persons, the more nearly alike they can be expected to respond.

than in terms of how he actually feels or acts.[1] Assuming that the Amish social system is composed of norms, beliefs, and other elements which differ from those of the non-Amish social system, that which is deemed socially acceptable should also differ between the two systems. This would tend to produce a difference in scoring patterns, if the assumption of the tendency toward socially acceptable answers holds true. It would seem to follow from this discussion that variations within the Amish social system would also tend to manifest variations in test scores. If it can be demonstrated that one portion or subsection of the Amish social system shows less evidence of boundary maintenance toward the non-Amish than another portion of the Amish social system, an element of directionality is introduced. This directionality should also be manifested in test scores.

A further examination of the Old Order Amish is necessary at this point. The culture of the Old Order Amish is composed of certain customs, culture traits, and traditions. Seen from outside the Amish social system, these traits and traditions take on the character of prohibitions against doing certain things or against owning certain items or facilities generally common in American society. These aspects of Amish culture have become manifest indications of the separation or the difference between the Amish and their non-Amish neighbors and fellow citizens. Among these signs of separation are included the particular dress and appearance of the Amish; their use of horses rather than automobiles and tractors for transportation and draft purposes; their prohibitions against having a telephone in the house and against the use of electricity, thus

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[1] Allen L. Edwards, "The Relationship Between the Judged Desirability of a Trait and the Probability that the Trait will be Endorsed," Journal of Applied Psychology, XXXIII (April, 1953), pp. 90-93.

helping to enforce the proscription against owning radios; their widespread use of the Pennsylvania German dialect; and their disapproval of higher education for their children. Such boundary maintaining mechanisms as these signs of separation serve to reinforce the Amish culture and preserve it against complete assimilation into American society.

Amish and Non-Amish as Opposites on a Continuum

There is, according to the literature, a tendency for the Amish to avoid situations which might bring about a relaxation of their cultural boundaries and subsequent changes in the institutional structure of Amish culture. However, the public school system, the commercialized character of present-day agriculture, and the extension of urban influence into rural areas have all been instrumental in producing change in the Amish social system. A comparison of Amish life now with Amish life fifty years ago shows that changes have occurred and are occurring. Rather than having one Old Order Amish social system unitedly in opposition to all linkages with non-Amish social systems, the extremely strict Old Order Amish must be seen as one end of a continuum. Opposite to this well-defined type of Amish social and cultural system stands a rather general non-Amish social and cultural system. Various degrees of Amish conservatism can be approximately located on this continuum somewhere between the strict Old Order Amish and the non-Amish.

In reality, the movement of the Amish along this continuum is usually predictable, since the Amish often pass into or through less conservative Mennonite congregations on the way to assimilation with the larger American society. Concomitant with these changes in group identification comes a change in the customs and practices of the Amish. With membership in a less conservative group, there is a relaxation of

the proscriptions against the automobile, the tractor, electricity, and other facilities which are essentially prohibited in the strict Old Order Amish society. For any one family or church district, however, these changes are likely to be gradual over the space of at least several years. It is possible to have accepted some of these changes, either as a family or as a church district, while still being technically considered Old Order Amish.

Differences Within Amish Groups

Viewing the Amish/non-Amish dichotomy as a continuum makes it possible to further test the reported findings that the Amish tend to differ consistently from the non-Amish in scores on standardized tests of personality. As previously stated, these differences in scores can be attributed to the orientations which result from differences in cultural background. However, as this cultural background changes, it is expected that the orientations would also change. Since the possession of certain key facilities is a reflection of differences in the degree of conservatism of the Amish, the difference in orientation should occur in harmony with the possession of these facilities.

In short, it is expected that the difference in orientation and thus the difference in score from the non-Amish would be accentuated among those Amish whose families adhere most strictly to the proscriptions against owning certain key facilities.

Other things being equal, two different systems linked together temporarily as one are likely to become more similar than if they were never linked. A possible alternative to this growth in similarity, however, might be found under conditions where systemic linkage actually results in the more strict application of boundary maintenance, perhaps through the formation of certain personality characteristics. The result

then would be that the two systems become more dissimilar through being linked. The position taken in this study, however, is that systemic linkage results in the lowering of boundary maintenance rather than increasing it, even though there might be an increased awareness of these boundaries as members of the two systems interact.

Applied to the situation of Amish and non-Amish school children, the assumption that a greater amount of systemic linkage results in the lowering of boundary maintenance has predictive value for the interpretation of test score differences. Assuming differences between the Amish and the non-Amish mean scores, the Amish showing greater systemic linkage through ownership of proscribed items, would show less boundary maintenance as reflected in their test scores. That is, the Amish children with these items would score more like the non-Amish children than would the Amish children who have none of these items.

Hypotheses

Several hypotheses have been formulated to test the implications of the above discussion. An assumption implicit in all of these hypotheses is that the scores on standardized tests reflect personality orientations which are based on social and cultural backgrounds. The selected standardized tests to be used are Aspects of Personality and FIRO-B. Selection of the tests and the sample will be explained later in the next chapter.

Hypothesis I. Assuming that the social and cultural backgrounds of the non-Amish children differ from the social and cultural backgrounds of the non-Amish children, it is hypothesized that the mean score of the Amish children on the selected standarized test used in this study will differ from the mean scores of the non-Amish children on the individual sections of the same test.

Hypothesis II. If two social systems are linked to each other, the subsection of the first which manifests more evidence of boundary maintenance toward the second will manifest less similarity in orientation to the second social system.

For actual testing, Hypothesis II will need to be made more specific in the following way:

Hypothesis IIa. For each individual test category in which the mean score of the Amish children is found to be numerically greater than the non-Amish mean score, the following is hypothesized:

> The mean score of the Amish children whose families have no electricity, no radio, no automobile, no telephone, and no tractor will be numerically greater than the mean score of the Amish children whose families have one or more of the items or facilities in question.

Hypothesis IIb. For each individual test category in which the mean score of the Amish children is found to be numerically smaller than the non-Amish mean score, the following is hypothesized:

> The mean score of the Amish children whose families have no electricity, no radio, no automobile, no telephone, and no tractor will be numerically smaller than the mean score of the Amish children whose families have one or more of the items or facilities in question.

A parallel test of the above hypotheses is proposed by hypothesizing the following:

Hypothesis III. Assuming that friendship groups tend to manifest a similarity in orientation and share boundary maintaining characteristics, those Amish children whose families have no electricity, no radio, no telephone, no automobile, and no tractor

will more often choose only other Amish children as their best friends than will those Amish children whose families possess one or more of the items in question.

Elaboration concerning methods of procedure in testing the above hypotheses will be a part of the next chapter. Chapter III will also contain an explanation of how the sample of Amish and non-Amish children was selected.

CHAPTER III

METHODS OF PROCEDURE

Selection of Amish Areas and Schools

The data used in this study were gathered in October of 1958 and January of 1959. The Amish areas selected were Elkhart and LaGrange Counties, Indiana, and Lancaster County, Pennsylvania, respectively the second and third largest Amish concentrations in the United States.[1] One of the schools used was actually located in Maryland, just across the southern border of Pennsylvania.[2] These areas were selected due to their having been used in two of the four studies reviewed earlier. An attempt was made to replicate the Engle and the Smith studies using the same schools. However, due to (1) consolidation of one of the schools into a larger district in Indiana, and (2) difficulty in obtaining the name of one of the schools in Pennsylvania, it was not possible to duplicate the schools as used by Smith and Engle. However, in both Pennsylvania and Indiana, schools in addition to ones used earlier were contacted, and permission was obtained to administer the set of tests.

In each of these two general areas, an attempt was made to locate public schools of three types. These were (1) schools with Old Order Amish children and non-Amish children in approximately equal proportions in the same classrooms; (2) schools with Old Order Amish children only; and (3) schools in the same general areas with non-Amish children only. No attempt was made to choose a completely random

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[1] The largest Amish concentration, the Holmes County, Ohio, area was not included in this study for at least two reasons: (1) It has not been included in a published study using personality tests such as was done in Pennsylvania and Indiana, and, thus, there was no possibility of replication in actual schools used; and (2) the intensity of the controversy between the Amish and the school officials in Ohio made it seem inadvisable to make a study there at the time.

[2] A listing of the schools included in the samples is contained in Appendix I.

sample of Amish and non-Amish children in these areas. As explained in Chapter I, the school situation is endemically tense in Amish areas due to the opposition of the Amish to consolidation and other innovations in the public school system. Selection of the sample was thereby contingent upon authorization by teachers and school administrators, some of whom opposed a testing program of any kind at that particular time.

Administration of Tests

Once authorization was granted, two standardized tests and a questionnaire were administered by the teachers themselves. Each teacher was asked to administer the tests and questionnaire in a certain order and according to certain instructions.[1] However, it was also requested that the tests be administered as though part of the school activity and not part of a research project from outside the school itself. The Amish tend to be suspicious of such research, especially when they themselves are the object of the research. This is not unusual considering the boundary maintaining character of the Amish social system.

Since one of the original purposes of this study was to make use of the time dimension in replicating two of the earlier studies (Engle and Smith), the Aspects of Personality, as used by Engle and Smith, was used for this study also. The authors of this inventory state[2] that Aspects of Personality attempts to offer aid in solving problems of behavior adjustment in the area of temperament and the personality traits of the children. The inventory consists of three sections designed respectively to provide

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[1] See Appendix for copy of questionnaire, tests, and test instructions.

[2] Rudolf Pintner, et al, Aspects of Personality Manual of Instructions (Yonkers-on-Hudson, New York: World Book Company, 1938).

a measure of ascendancy-submission, introversion-extroversion, and emotionality. Separate scores are obtained for each of these sections.

Its authors have the following to say about the respective sections of Aspects of Personality:[1]

> Ascendance-Submission. A very low score on this test may indicate a submissive, retiring type of child. Such a child is not likely to be a leader, but rather a docile follower. His attitude may be due to repression at home. It may be the result of a domineering home environment. It may also be due to feelings of inferiority, real or imaginary, on the part of the child....
>
> Extroversion-Introversion. Children with low percentiles on this test are presumably too introverted, too much turned in on themselves. They withdraw too much from the world and tend to find too great satisfaction in their own daydreams. They may dodge the responsibilities of the real world and obtain their satisfactions in an imaginary one....
>
> Emotional Stability. A very low percentile rating on this section may indicate lack of emotional balance. Such ratings point toward the psychoneurotic individual type. Such a child is likely to be flighty, easily upset; he probably has anger outbursts or temper tantrums; he may have many fears and anxieties; minor excitements may cause psychic shocks out of all proportion to their stimuli.

However, as a general caution in the interpretation of the tests, the authors go on to note:

> The percentile scores on these three sections are to be thought of more as a general description of a child's personality than as an accurate diagnosis of personality difficulties. No simple group test of this type can diagnose, but it can indicate children who may need careful attention.

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[1] Ibid., pp. 6-8.

The second inventory administered to the school children was called FIRO-B, a title made up of initials standing for Fundamental Interpersonal Relations Orientation in the Behavioral Aspects. This title

> signifies the basic idea that every person orients himself in characteristic ways toward other people, and the basic belief that knowledge of these orientations allows for considerable understanding of individual behavior and the interaction of people.[1]

FIRO-B is based on the postulate that every individual has three interpersonal needs: Inclusion, control, and affection.

> The interpersonal need for inclusion is defined behaviorally as the need to establish and maintain a satisfactory relation with people with respect to interaction and association. "Satisfactory relation" includes (1) a psychologically comfortable relation with people somewhere on a dimension ranging from originating or initiating interaction with all people to not initiating interaction with anyone; (2) a psychologically comfortable relation with people with respect to eliciting behavior from them somewhere on a dimension ranging from always initiating interaction with the self to never initiating interaction with the self.
>
> The interpersonal need for control is defined behaviorally as the need to establish and maintain a satisfactory relation with people with respect to control and power. "Satisfactory relation" includes (1) a psychologically comfortable relation with people somewhere on a dimension ranging from controlling all the behavior of other people to not controlling any behavior of others, and (2) a psychologically comfortable relation with people with respect to eliciting behavior from them somewhere on a dimension ranging from always being controlled by them to never being controlled by them.
>
> The interpersonal need for affection is defined behaviorally as the need to establish and maintain satisfactorily a relation with others with respect to love and affection. Affection always refers to a two-person (dyadic) relation. "Satisfactory relation" includes (1) a psychologically comfortable relation with others somewhere on a dimension ranging from initiating close, personal relations with

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[1] William C. Schutz, FIRO, A Three-Dimensional Theory of Interpersonal Behavior (New York: Rinehart and Company, Inc., 1958), p. vii.

> everyone to originating close personal relations with no one; (2) a psychologically comfortable relation with people with respect to eliciting behavior from them on a dimension ranging from always originating close personal relations toward the self to never originating close personal relations toward the self.[1]

The FIRO-B inventory is divided into three sections designed to measure a person's behavior in satisfying each of the interpersonal needs. Each section is further divided into two aspects of this behavior: (1) The behavior which the individual expresses toward others, and (2) how the individual wants others to behave toward him.

> FIRO-B, therefore, is designed to measure the individual's behavior toward others (e) and the behavior he wants from others (w) in the three areas of interpersonal interaction. This measure leads to six scores: Expressed inclusion behavior (eI), wanted inclusion behavior (wI), expressed control behavior (eC), wanted control behavior (wC), expressed affection behavior (eA), and wanted affection behavior (wA).[2]

The questionnaire which accompanied the administration of the two inventories included questions pertaining to religious groups, sex, age, grade, residence, occupation of father, and a level of living scale which included items pertaining to facilities usually proscribed by the Amish. In addition, a sociometric question asked for choices of best friends in the school.

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[1] Ibid., pp. 18-19.

[2] Ibid., pp. 58-59.

Being one of the earlier personality inventories, Aspects of Personality becomes subject to the criticisms made concerning the validity of personality questionnaires.[1] However, the importance of the test in this study is not in terms of personality dimensions. The use of such a test here is mainly to furnish an instrument for differentiating between Amish and non-Amish responses to a common set of statements. Having been used in earlier studies, it also provides a basis of comparison with those studies.

FIRO-B was used in an attempt to assess the behavioral aspects of Amish and non-Amish interaction and interpersonal relations. While such assessment may prove fruitful in interpreting Amish and non-Amish interaction, this test is also used in this study as an instrument in testing the hypotheses.

The Sample

The sample for this study was selected from a larger sample of children who had taken either one or both of the tests which are being used in this study. In the original sample, there were 1,020 children in grades four to nine. After an intitial selection of those who lived in the two major Amish areas in Indiana and Pennsylvania, a further selection was then made of seventh and eighth graders only in three general religious groups--Old Order Amish, Mennonites (Old Mennonites and General Conference Mennonites), and non-Mennonites--who had completed at least one test

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[1] Albert Ellis, "The Validity of Personality Questionnaires," Psychological Bulletin, XLIII (September, 1946), pp. 385-440. Ellis says, "We may conclude, therefore, that, judging from the validity studies on group-administered personality questionnaires thus far reported in the literature, there is at best one chance in two these tests will validly discriminate between groups of adjusted and maladjusted individuals, and there is very little indication that they can be safely used to diagnose individual cases or to give valid estimations of the personality traits of specific respondents." (p. 425)

and who had supplied the information necessary for selection. This left a total of 549, of which 233 were Old Order Amish, 142 were Mennonites, and 174 were non-Mennonites.

This selection of religious groups eliminated the Beachy Amish and other Church Amish groups, the Old Order Mennonites, and the Stauffer Mennonites, all of which are quite similar to the Old Order Amish in some respects, but do differ in others.

The Old Mennonites and the General Conference Mennonites constitute the largest and least sect-like divisions of the Mennonite churches in North America. While they are still considered a conservative segment of American Protestantism, their position with respect to the Amish is a liberal one. The Old Mennonites, to some extent, and the General Conference Mennonites, to a large extent, have lost the traditions which made their grandfathers a separate people. C. Henry Smith lists the Old Mennonites as Moderates and the General Conference Mennonites as Progressives within the broad group included under the name of Mennonite in America.[1] All Amish groups are, of course, labeled Conservatives.

Despite the fact that Mennonites might be expected to share certain orientations with the Amish due to the similarity in background, no distinction will be made between the Old Mennonites, General Conference Mennonites, and the non-Mennonites in the sample. These three will all be included within the group called non-Amish. The main division to be observed is the Amish/non-Amish dichotomy, which constitutes the first breakdown to be considered in the analysis.

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[1] C. Henry Smith, op. cit., pp. 744-746.

Control for Residence

In order to meaningfully compare two groups on the basis of one characteristic, it is necessary to match the two samples on all other important characteristics which might make a difference. Controlling for various characteristics is, of course, limited by the size of the samples which must be retained to assure some validity to the findings. If one were to examine various characteristics of the Amish/non-Amish sample as thus far selected, one of the most obvious of these characteristics is related to the difference in residence patterns between the Amish and the non-Amish.

Table 4 indicates that 87.1 per cent of the Amish children in the general sample are rural farm residents. One the other hand, only 36.4 per cent of the non-Amish are rural farm residents. Town residence shows opposite tendencies with 31.5 per cent of the non-Amish living in towns, while only 1.3 per cent of the Amish children live in towns.

TABLE 4. Residence According to Religious Grouping of Those Seventh and Eighth Graders in Original Sample Who Lived in Pennsylvania and Indiana.

Type of Residence	Amish		Non-Amish	
	Number	Per Cent	Number	Per Cent
Rural Farm	203	87.1	112	36.4
Rural Non-farm	27	11.6	99	32.1
Town	3	1.3	97	31.5
TOTAL	233	100.0	308	100.0

If differences in personality can be traced to rural-urban differences, it seems likely that residence characteristics are at least associated with the differences between the Amish and non-Amish children. Many of the papers on the subject of urban-rural differences in

personality suggest that much of the research has been inconclusive. Stott says that "certain circumstances and conditions of rural living are definitely associated with the achievement of desirable personality adjustment by the child."[1] Mangus also concludes that the average level of personality adjustment was significantly higher among farm children than among children living in city homes.[2] Other studies, however, imply that there are no such differences. Burchinal, Hawkes and Gardner, reporting on several studies in four states, indicate an increasing similarity between the two groups. "Assuming a trend toward urbanization of small towns and rural areas, one should expect to find no significant differences in personality characteristics of farm and rural/non-farm children and children from smaller cities."[3]

With such uncertainty of evidence, the decision whether or not to control for residence seems to be almost an arbitrary one. While there seems to have been a general agreement in the studies just mentioned that the rural-urban dichotomy was somehow meaningful at one time for interpreting differences in personality, this difference is apparently disappearing due to the increasing urbanization of rural areas.

However, not all rural areas have been equally touched by this urban influence. The boundary-maintaining Amish communities are

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[1]Leland H. Stott, "Some Environmental Factors in Relation to the Personality Adjustments of Rural Children," Rural Sociology, X (December, 1945), pp. 394-403.

[2]A. R. Mangus, "Personality Adjustment of Rural and Urban Children," American Sociological Review, XIII (October, 1948), pp. 566-576.

[3]Lee G. Burchinal, Glenn R. Hawkes and Bruce Gardner, "Adjustment Characteristics of Rural and Urban Children," American Sociological Review, XXII (February, 1957), p. 87.

examples of how an essentially rural way of life in the more traditional manner has been retained. One would expect, then, that, if there were differences between rural and urban personality characteristics, they would certainly be found in comparing the Amish with the non-Amish in the general sample for this study. However, it would not be clear as to how much of this difference was due to difference in orientations between farm environments and town environments. Since the Amish have sect-like characteristics in addition to being almost entirely an agricultural people, meaningful analysis depends even more on the control of variables which are possible sources of differences in themselves. That is, being both Amish and rural could conceivably either cancel out or accentuate differences which might be due to religion alone or to being rural alone.[1]

Control for Type of School and Test Conditions

There is another factor which might be of importance in a rigorous comparison of Amish and non-Amish children. The residence breakdown in Table 4 is made regardless of type of school. Earlier in this chapter, it was stated that three types of schools were selected: (1) schools with Amish and non-Amish together in the same classrooms, (2) schools

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[1] Tables 2 and 3 in the Appendix show how the scores of the non-Amish children, by residence, compare with the scores of the rural farm Old Order Amish children. The expectation that the rural farm Amish and rural farm non-Amish children would score closest to each other is not the case with the general sample, as shown in Table 2. However, among the Amish and non-Amish who share the same classrooms (see Table 3 in Appendix), the two rural farm groups do tend to score closer to each other than to the other residence groups.

with Amish only, and (3) schools with non-Amish only. It is possible that the conditions under which the tests were given in these various schools could have produced certain variations in scoring patterns. The only way to control such variations in the test sample of Amish and non-Amish is to use only these subjects who took the test under the same conditions. This implies that, for the most rigorous examination of the data, the Amish and non-Amish to be compared should be those who were in the same classrooms when the tests were given. Controlling for test conditions in this way also serves to simulate the conditions under which tests were given in the studies mentioned in Chapter II, since their concern was with Amish and non-Amish children in the same schools. Assuming that the scores are more objectively comparable in such mixed schools, scores of the rural farm resident Amish and non-Amish children in these schools will constitute the final group for comparison and analysis on the basis of religion alone.

Control for Sex

In all of the studies reviewed in Chapter II, there was a tendency for the boys to score differently from the girls. For Aspects of Personality, percentile norms are given for boys and girls separately; and variations in these norms imply that boys and girls are expected to score differently. Due to this difference, analysis of scores will be made with the scores of boys separated from the scores of girls.

Selection According to Proscribed Items

It was hypothesized in Chapter II that the ownership of any one or more of the items--electric lighting facilities, automobile, tractor, radio, and telephone--indicates a partial breakdown in boundary maintenance and thus a movement along the continuum in the direction of the non-Amish, as indicated by scores on standardized tests. While the test of

this hypothesis remains for Chapter IV, it has not yet been demonstrated why these particular items were selected.

The level of living scale, which had been administered as part of the questionnaire, requested information on the following items: Lighting in house, refrigeration, running water, indoor toilet, daily newspaper, power clothes washer, radio, automobile, telephone, and tractor. Table 5 shows the percentages of Amish and non-Amish respondents whose families owned these facilities. The percentages of

TABLE 5. Percentage of Rural-Farm Amish and Non-Amish Families Possessing Items on Level of Living Scale

Item	Percentage of Amish Who Possess Item	Percentage of Non-Amish Who Possess Item
Electric Lighting in House	5.1	97.4
Mechanical Refrigeration	68.4	98.7
Running Water in House	77.8	91.0
Indoor Toilet	68.4	88.5
Daily Newspaper	73.4	87.2
Power Clothes Washer	66.3	98.7
Radio	7.9	88.5
Automobile	6.8	100.0
Telephone	6.8	91.0
Tractor	29.4	92.3

non-Amish owning these facilities in all cases exceeds the percentage of Amish owning the same facilities. However, while the percentage of non-Amish ownership of any one facility does not go below 87 per cent, five of these ten facilities are not owned by more than 30 per cent of the Amish respondents. Four of these five items are not owned by more than

8 per cent of the Amish. The five showing low percentage of Amish ownership are: Electric lighting (5.1 per cent ownership), radio (7.9 per cent), automobile (6.8 per cent), telephone (6.8 per cent), and tractor (29.4 per cent).

Non-ownership of these items does not seem to imply a lack of ability to buy them. Kollmorgen, for instance, says that the Amish have generally prospered more than their neighbors.[1] And, as Smith indicates,[2] retaining some of the old practices, such as the use of the horse and buggy, may actually be just as expensive as buying an automobile. It seems more likely that the percentages shown in Table 6 support the generalization made in Chapter I that the majority of the Old Order Amish are religiously opposed to possession of electricity, automobiles, radios, telephones, and tractors. Of these five, the ownership of tractors has been most widely accepted. Since the majority of the Amish do not own these items because of religious reasons, they will be referred to as proscribed items or facilities.

The very fact that even a small percentage own these items indicated a change for the Amish. D. Paul Miller, for instance, lists such items as the automobile, the tractor, and electricity as negative forces in Amish acculturation or culture change. In his definition of negative force, the ownership of proscribed items fosters conditions which tend to destroy the status quo of the group and thereby changes the culture.[3]

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[1] Kollmorgen, op. cit., p. 23.

[2] Elmer L. Smith, The Amish People, op. cit., p. 189.

[3] D. Paul Miller, op. cit., pp. 31 and 145.

Testing Procedures

In testing the two hypotheses stated in Chapter II, three tests will be made of each one. Testing for gross difference first, the application of controls to the sample will be made in an attempt to become increasingly rigorous. The following outline will be followed:

Test of Hypothesis I:

1. Comparison of Amish with non-Amish regardless of residence.
2. Comparison of rural farm resident Amish with rural farm resident Non-Amish.
3. Comparison of rural farm resident Amish with rural farm resident non-Amish who are in schools together.

Test of Hypothesis II:

1. Comparison of two Amish groups in rural farm resident test sample.
2. Comparison of two Amish groups in rural farm resident test sample, leaving out those whose families own a tractor but have none of the other proscribed items.
3. Comparison of two Amish groups in rural farm resident test sample who are in school with non-Amish.

Test of Hypothesis III:

1. Comparison of two Amish groups in rural farm resident test sample who are in school with non-Amish.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this chapter is to statistically examine the data for this study in terms of the hypotheses given in Chapter II. The hypotheses will be restated here as the appropriate data are being examined. However, they will be stated as null hypotheses, since this is the desired form for the use of statistical techniques. Rejection of the null hypothesis allows acceptance of the original hypothesis.

Choice of Test

Various considerations enter into the choice of a statistical test. Among these considerations are: (1) the power of the test; (2) the manner in which the sample scores were drawn; (3) the nature of the population from which the sample was drawn; and (4) the kind of measurement or scaling which was employed in the operational definitions of the variables involved--that is, in the scores.[1] The data for this study must be evaluated in the light of all of these considerations.

(1) Power of Test. The power of a statistical analysis--that is, the likelihood that a false hypothesis will be rejected and a true hypothesis will be accepted--is partly a function of the test which is used. A review of the other considerations shows how the nature of the present data limits the selection of the test and hence the power of the test to be used.

(2) Selection of Sample. The sample for this study was not randomly selected and is possibly biased through selecting usable and discarding unusable schedules. In the case of the division based on ownership of proscribed items, it was necessary to accept only the schedules of those Amish children who gave complete answers on all of the key items. Since

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[1] Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Co., Inc., 1956), p. 18.

there was no need to classify the non-Amish in accordance with their possession of these items, no rejection on this account was made for the non-Amish so that a larger sample could be retained.

(3) Nature of Populations. The selection of the schools to be tested was made arbitrarily, except for the stipulation that the non-Amish schools be in the general vicinity of the Amish areas. An attempt was made to obtain schools with a large proportion of children with rural farm backgrounds. However, in Amish areas, the non-Amish residents are often those who live in or near villages and small towns providing services for the Amish through occupations and professions which are not permitted by the Amish for their own number. While the present data seem similar to those presented in other studies,[1] it is difficult to make comparisons between the Amish and non-Amish populations on the basis of the few schools tested because the schools were so widely scattered.

(4) Type of Scaling. As Siegel notes,[2] many personality inventories result in scores which have the strength of ranks and must be viewed as ordinal rather than cardinal enumerations. An example from FIRO-B, one of the tests used in the present study, demonstrates the truth of this statement. With the instructions that the testee record the number of the category which best applies to him, he is presented with fifty-four statements, the first of which is:

"I try to be with people."

1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

If any one of the first three categories are chosen, the testee receives one point toward a score in "expressed Inclusion." However, if he chooses the fourth, fifth or sixth category, he receives no points. What can become a shared rank position (two or more persons accepting the

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[1] See Table 1 in Appendix.

[2] Siegel, op. cit., p. 24.

same statement), may actually be made up of two different answers--for instance, one person answering "usually," while the other answers "sometimes."

The above discussion indicates that the nature of the present data prohibits fulfillment of the following assumptions of a parametric statistical model: (1) The observations must be independent, (2) the observations must be drawn from normally distributed populations, and (3) these populations must have the same variance.[1] It seems imperative, then, to use an applicable nonparametric statistical test.

The hypotheses in this study do not stipulate which statistical test must be used.

> It is obvious that the fewer or weaker are the assumptions that define a particular model, the less qualifying we need to do about our decision arrived at by the statistical test associated with that model. That is, the fewer or weaker are the assumptions, the more general are the conclusions. However, the most powerful tests are those which have the strongest or most extensive assumptions.[2]

Since many of the assumptions for a more powerful test cannot be made with the data in this study, it seems imperative to use a test for which unrealistic assumptions need not be made. Of the various possibilities, chi-square, needing only frequencies of certain magnitude and order, requires fewer assumptions than many of the others. While chi-square provides only a crude measurement in terms of test-scoring patterns, it will be used in this study due to the above-stated reservations concerning the data.

The possible values of chi-square which cause rejection of hypotheses make up the rejection region, or critical region. The rejection region for the tests of hypotheses in this study is defined as any probability value which is below the .05 level.

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[1] Ibid., p. 19.

[2] Ibid., p. 19.

In testing Hypothesis I, probabilities of a two-tailed chi-square test will be used, since it is possible that Amish and non-Amish scores can vary in two ways--the Amish score might be larger than the non-Amish score or the Amish score might be smaller than the non-Amish score. In testing Hypothesis II, however, a direction in scores is hypothesized. Predicting the direction of difference requires the use of a one-tailed test. The probability associated with a one-tailed test for a certain chi-square is one-half that for a two-tailed test with the same chi-square value.[1]

Test of Hypothesis I

The first hypothesis to be tested is stated in the null form as follows:

> Hypothesis I. Although assuming that the social and cultural backgrounds of the Amish children differ from the social and cultural backgrounds of the non-Amish children, the mean score of the Amish children on the selected standardized tests used in this study will not differ from the mean scores of the non-Amish children on individual categories of the same test.

The use of chi-square for testing this hypothesis requires the setting up of a frequency table with four cells and two variables. The two variables are (1) religion and (2) rank with regard to the mean score of the entire group to be considered. The mean score (to the nearest whole number) for the entire group is used as the mid-point in determining the frequencies of the cells. Counting the number of Amish children who received a score below and including the mid-point provides the frequency for the upper left-hand cell. The count of Amish children who score above the mid-point constitutes the frequency for the right-hand cell. The same relationship of below and including the mid-point for the

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[1] Ibid., p. 108.

right-hand cell provides frequencies in the lower two cells for the non-Amish children. The following diagram illustrates the arrangement of a four-cell frequency table:

Mean Score to the Nearest Whole Number

	Below	Above
Amish	Number of Amish who score below or the same as the mean score.	Number of Amish who score above the mean score.
Non-Amish	Number of Non-Amish who score below or the same as the mean score.	Number of Non-Amish who score above the mean score.

Comparisons of the frequencies which are observed in the data with frequencies which would theoretically obtain if chance alone were operating yields a chi-square value. The theoretical cell frequencies and the chi-square values for the data in this study were computed on MISTIC, an electronic computer at Michigan State University.[1] Since the concern here is with differences and the probability that these differences might be due to chance, the actual means and frequencies are not given in this chapter. The Amish and non-Amish mean scores, as well as the combined Amish/non-Amish group mean scores, are to be found with a listing of the observed frequencies of scores above and

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[1] The program number used was K6M under Problem No. 309T. The use of K6M on MISTIC yields the same chi-square value as does the use of the formula:

$$\text{Chi-Square} = \frac{N\,(ux - vw)^2}{(n_1)\,(n_2)\,(n_3)\,(n_4)}$$

The letters (u, x, v, and w) refer to cell frequencies, while the n's refer to marginal sums of these frequencies. The total number of cases is designated by the letter N. See Thomas C. McCormick, Elementary Social Statistics (New York: McGraw-Hill Book Co., Inc., 1941), p. 209.

below the group mean scores in Table 6 to Table 8 in the Appendix. The chi-square values for these differences are to be found in the same tables.

If the observed frequencies are in close agreement with the theoretically expected frequencies, the differences--and consequently the chi-square value--will be small. With a small value of chi-square, it is not possible to reject the null hypothesis that the two sets of characteristics are independent of each other. However, the larger the chi-square, the more likely it is that the two groups differ with respect to the classifications.

The level of significance associated with a chi-square value is expressed in terms of probability that the difference is due to chance. Small chi-square values have a high percentage of probability that the observed difference is not significant; and, therefore, the null hypothesis of no differences cannot be rejected. The rejection region used here is less than the .05 (5 per cent) level; that is, those test categories with differences which have a probability of having occurred due to chance more than five times in a hundred tries will be considered insufficient for rejecting the null hypothesis.

In testing the hypotheses for the present study, the tables in the text indicate the decision to accept or reject the null hypothesis and give the corresponding percentage of probability for each test category and for each group constituting a breakdown in the test sample.

The three categories in Aspects of Personality and the six categories in FIRO-B were explained in Chapter III. As pointed out in the same chapter, the importance of these tests in this study is not in terms of personality dimensions as such. The tests are used instead as instruments in differentiating between Amish and non-Amish responses. Comments on possible meanings of the test outcomes in terms of the test categories themselves will be made in Chapter V. Rather than writing out the names of the categories each time they are mentioned, the

following abbreviations are used in making reference to the test categories: A-S (Ascendance-Submission), Ex-In (Extroversion-Introversion), Em (Emotionality), eI (expressed Inclusion), wI (wanted Inclusion), eC (expressed Control), wC (wanted Control), eA (expressed Affection), wA (wanted Affection).

(1) General Sample. Table 6 shows the decisions made in testing Hypothesis I, which says, in null form, that there are no differences between the Amish and non-Amish scores in the overall test sample.

In four out of the nine categories of the two tests, the boys show differences with probabilities of .05 or below. In A-S and Ex-In, the differences are at the .001 level and the .025 level, respectively. In eA, the difference is at the .005 level. All three of these are highly significant. In addition, wC shows a difference at the .01 level. Category eI manifests a difference just greater than the .05 level. However, the categories of Em, wI, eC, and wA show very insignificant differences, all of them at the .3 level or more.

The girls show differences with probabilities below .05 in six of the nine categories. In A-S and Ex-In, this difference is at the .0005 level. Other categories with significant differences are eC (.001), eI (.025), and wC (.025). While not acceptable as significantly different, categories eA and wA show important differences at just above the .05 level. In Em, the difference is at the insignificant level of .6.

The combined scores of both boys and girls in each religious grouping are not included here for the following reasons: (1) Scores of the Amish boys can differ from scores of non-Amish boys in different direction and magnitude from that between the scores of Amish and non-Amish girls--thus, possibly confusing the difference between the religious groups as such; (2) the numbers of boys and girls in each religious division have not been held constant, and there is the possibility that the unevenness in numbers may bias the group score.

TABLE 6. Decisions Regarding Null Hypothesis I for Differences in Scores on Aspects of Personality and FIRO-B Between Amish and non-Amish Children in Grades Seven and Eight[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis	Probability[b]	Decision Regarding Null Hypothesis	Probability[b]
Aspects of Personality				
Ascendance-Submission	Reject	< .001	Reject	< .0005
Extroversion-Introversion	Reject	< .025	Reject	< .0005
Emotionality	Accept	> .80	Accept	> .60
FIRO-B				
expressed Inclusion	Accept	> .05	Reject	< .025
wanted Inclusion	Accept	> .30	Reject	< .025
expressed Control	Accept	> .75	Reject	< .001
wanted Control	Reject	< .01	Reject	< .025
expressed Affection	Reject	< .005	Accept	> .05
wanted Affection	Accept	> .75	Accept	> .05

[a]Number of subjects included in each individual category varies from 207 to 255 for the boys and from 217 to 273 for the girls. For mean scores, frequencies, and chi-square values, see Table 6 in Appendix.

[b]Shows probability per one degree of freedom that observed frequencies are due to chance alone.

Three of the test categories--A-S, Ex-In, and wC--show significant differences between the Amish and non-Amish scores for both boys and girls considered separately. The null hypothesis is thus rejected for these three categories. In addition, the boys differ significantly on one (eA),

and the girls differ significantly on three more (eI, wI, and eC). This makes a total of eleven significant differences out of eighteen possibilities. For this group of Amish and non-Amish children, the null hypothesis that there are no differences is thus rejected about 56 per cent of the time.

(2) Rural Farm Resident Sample. In choosing the test sample, however, a control was made for residence. Testing the same hypothesis--that there are no differences between the mean scores of Amish and non-Amish children--frequency tables using only the rural farm children were set up. Table 7 shows the results. Using the same rejection region--all those probabilities beyond the .05 level--the Amish and non-Amish boys differ significantly in one category, and the Amish and non-Amish girls differ significantly in four categories.

The rural farm test sample differs slightly from the general group regarding the categories in which significant differences are found. For the boys, of course, only one category (A-S) shows a significant difference in both samples. The girls differ significantly in four categories for both samples (A-S, Ex-In, eC, and wC), although the rural farm girls, in contrast to the girls in the general sample, fail to show significant differences on eI and wI. For both boys and girls, the differences between Amish and non-Amish in the rural farm group tend to be less significant than those corresponding differences in the general sample.

In the test sample of rural farm children, there are significant differences in the distribution of Amish and non-Amish scores in five out of eighteen possibilities--one for the boys and four for the girls. Only about 28 per cent of the time, then, is the null hypothesis of no difference rejected for the rural farm test sample. In an additional three categories, however, the probability is still less than .10. The categories with near significant differences are Ex-In, eI, and wI for the boys.

TABLE 7. Decisions Regarding Null Hypothesis I for Differences in Scores on Aspects of Personality and FIRO-B Between Amish and Non-Amish Rural Farm Resident Seventh and Eighth Grade Children.[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis	Probability[b]	Decision Regarding Null Hypothesis	Probability[b]
Aspects of Personality				
Ascendance-Submission	Reject	< .05	Reject	< .005
Extroversion-Introversion	Accept	> .05	Reject	< .025
Emotionality	Accept	> .30	Accept	> .20
FIRO-B				
expressed Inclusion	Accept	> .05	Accept	> .10
wanted Inclusion	Accept	> .05	Accept	> .10
expressed Control	Accept	> .70	Reject	< .01
wanted Control	Accept	> .20	Reject	< .025
expressed Affection	Accept	> .50	Accept	> .10
wanted Affection	Accept	> .30	Accept	> .70

[a]Number of subjects included in each individual category varies from 123 to 134 for the boys and from 130 to 144 for the girls. For mean scores, frequencies, and chi-square values, see Table 7 in Appendix.

[b]Shows probability per one degree of freedom that observed frequencies are due to chance alone.

(3) Sample of Amish and Non-Amish in Schools Together. As was explained in Chapter II, the final comparison of scores includes only the scores of those Amish and non-Amish children who are in school with each other. Table 8 shows the results of comparison on this final test sample. Only two categories show differences which are significant.

TABLE 8. Decisions Regarding Null Hypothesis I for Differences in Scores on Aspects of Personality and FIRO-B Between Amish and Non-Amish Rural Farm Resident Seventh and Eighth Grade Children with Amish and Non-Amish in the Same Classrooms.[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis	Probability[b]	Decision Regarding Null Hypothesis	Probability[b]
Aspects of Personality				
Ascendance-Submission	Accept	> .25	Reject	< .025
Extroversion-Introversion	Accept	> .30	Reject	< .025
Emotionality	Accept	.00	Accept	> .90
FIRO-B				
expressed Inclusion	Accept	> .80	Accept	> .80
wanted Inclusion	Accept	> .70	Accept	> .40
expressed Control	Accept	> .40	Accept	> .60
wanted Control	Accept	> .25	Accept	> .30
expressed Affection	Accept	> .10	Accept	> .30
wanted Affection	Accept	> .90	Accept	> .10

[a]Number of subjects included in each individual category varies from 50 to 59 for the boys and from 49 to 56 for the girls. For mean scores, frequencies, and chi-square values, see Table 8 in Appendix.

[b]Shows probability per one degree of freedom that observed frequencies are due to chance alone.

These categories are A-S and Ex-In, and the differences are of this magnitude only between Amish and non-Amish girls. No other category shows a difference at less than the .01 level. For the Amish and non-Amish in schools together, the null hypothesis of no difference between their scores is rejected only two times out of eighteen possibilities, or 11 per cent of the time.

For statistical acceptance or rejection of the null hypothesis, all or nearly all of the probabilities would need to be either greater than .05 or less than .05. Such a clear-cut division is not the case with the data in testing Hypothesis I. Any conclusions that can be drawn must be stated in terms of tendencies or trends. It has been demonstrated that the Amish scores do differ from non-Amish scores in several categories. These differences nearly disappeared when the comparison was restricted still further to include only those Amish and non-Amish children who are in classrooms together.[1]

Furthermore, the differences between Amish and non-Amish was less for the boys than for the girls. While some of the differences were highly significant statistically, the overall difference between Amish and non-Amish was slight for the rural farm resident sample when test conditions were controlled.

Test of Hypothesis II

Hypothesis II is dependent upon the findings of Hypothesis I. Making use of the directions in scores between Amish and non-Amish children in the several samples, Hypothesis II predicts the direction of differences between the two groups of Amish children: (1) Those whose families have none of the proscribed items, and (2) those whose families possess one or more of these items. Stated in the null form, this hypothesis is:

> Hypothesis II. If two social systems are linked to each other, the subsection of the first which manifests most evidence of boundary maintenance toward the second will manifest no difference in orientation to the second social system.

---

[1] It is possible the decrease in number of subjects tested contributed to the decline in the level of significance. Such a decline may be especially noticeable in the use of chi-square, since it does not have the power of the "t test," for example, which could have been used if certain other assumptions could have been met. However, the loss in number of subjects must be accepted if the control for various characteristics is deemed necessary.

For the actual testing of this hypothesis, while taking account of direction, Hypothesis II is made more specific by subdividing it as follows:

Hypothesis IIa. For each individual test category in which the mean score of the Amish children is found to be numerically greater than the non-Amish mean score the following is hypothesized:

> The mean score of the Amish children whose families have no electricity, no radio, no automobile, no telephone, and no tractor will be numerically less than or equal to the mean score of the Amish children whose families have one or more of the items in question.

Hypothesis IIb. For each individual test category in which the mean score of the Amish children is found to be numerically smaller than the non-Amish mean score, the following is hypothesized:

> The mean score of the Amish children whose families have no electricity, no radio, no automobile, no telephone, and no tractor will be numerically equal to or greater than the mean score of the Amish children whose families have one or more of the items in question.

Hypotheses IIa and IIb assume some differences between the test scores of the Amish and non-Amish children. While the actual mean scores do differ numerically, it has been shown that, in most cases, the distribution around an overall mean score of both groups is not significantly different in terms of chi-square distribution when the test sample is controlled for residence and test conditions.

However, it has been the numerical difference between Amish and non-Amish scores which has led to the test of their independence. It has also been this numerical difference which, when combined with what is known of the Amish social and cultural systems, has led to the hypothesizing of numerical differences among Amish children depending upon their families' ownership of certain items.

The method of setting up four-cell frequency tables used earlier is used here also. The two dichotomies for this contingency table, however, now become based upon: (1) The division of the Amish children into two groups, depending upon ownership of the items in question; and (2) the position above or below this mean score. The non-Amish score enters into the analysis only to provide a base point for the hypothesis of direction. Here again, the actual mean scores are not given in this chapter, but they are included in Tables 9 to 11 in the Appendix.

(1) Rural Farm Test Sample. Table 9 shows the decisions made regarding differences between the two Amish groups, separating the scores according to sex. The scores which follow the hypothesized direction of the null hypotheses are indicated as accepted and followed by a plus sign (Accept +). This is the same as saying that these are the scores which do not follow the hypothesized direction of the positively stated hypotheses. The scores which do not follow the hypothesized direction of the null hypotheses, but are not significantly different, are indicated as accepted and followed by a minus sign (Accept -). This implies rejection of the positively stated hypotheses; however, the direction is as predicted. If the scores are not in the direction predicted by the null hypotheses and are significantly different, they are indicated as rejected. This implies acceptance of the positively stated hypotheses.

None of the test categories are rejected; however, five of the categories for the boys and six of the categories for the girls are in a direction contrary to that predicted by the null hypotheses. The categories which show these opposite directions tend to have lower probabilities than those which show directions as hypothesized by the null hypotheses. Three categories--wC for the boys and eI and eA for the girls--have differences in the opposite direction, which are just slightly above the .05 level.

The positive version of Hypotheses IIa and IIb is not accepted in any of the categories for this sample; however, the direction was correctly hypothesized in eleven out of eighteen possibilities.

(2) Rural Farm Test Sample Leaving Out Those Whose Families Own Tractor Only. Using the same basic sample, the next step is to take into account the high percentage of tractor ownership in comparison with possession of electric lighting facilities, automobiles, radios, and telephones among the Amish in the test sample. In Chapter III, it was noted

TABLE 9. Decisions Regarding Null Hypotheses IIa and IIb for Differences in Scores on Aspects of Personality and FIRO-B Between Groups of Seventh and Eighth Grade, Rural Farm Resident Amish Children Who Differ According to Ownership of Proscribed Items.[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis[b]	Probability[c]	Decision Regarding Null Hypothesis[b]	Probability[c]
Aspects of Personality				
Ascendance-Submission	Accept -	> .20	Accept -	> .10
Extroversion-Introversion	Accept +	> .45	Accept -	> .20
Emotionality	Accept +	> .20	Accept -	> .10
FIRO-B				
expressed Inclusion	Accept -	> .20	Accept -	> .05
wanted Inclusion	Accept -	> .40	Accept +	> .49
expressed Control	Accept -	> .20	Accept +	> .35
wanted Control	Accept -	> .05	Accept +	> .40
expressed Affection	Accept +	> .45	Accept -	> .05
wanted Affection	Accept +	> .40	Accept -	> .15

[a]Number of subjects included in each individual category varies from 70 to 83 boys and from 77 to 94 girls. For mean scores, frequencies and chi-square values, see Table 9 in Appendix.

[b]Accept +indicates scores which follow the hypothesized direction of the null hypotheses. Accept - indicates scores which are opposite to the direction stated by the null hypotheses.

[c]Shows probability per one degree of freedom that observed frequencies are due to chance alone.

that nearly 30 per cent of the Amish children indicated ownership of tractors, while less than 10 per cent indicated ownership of any one or more of the other four proscribed items. This comparatively high ownership of tractors would seem to imply that the sanction against tractor ownership is not as great among the Amish as is the sanction against having electricity, automobiles, radios, or telephones. It is thus possible that the inclusion of the Amish children whose families own tractors, but do not have any of the other items, covers up what might be a sharper difference between the Amish children with none of the proscribed items and the Amish children with such items as an automobile or a radio. While no change was made in the hypotheses, an analysis of Amish scores was made excluding the scores of the children whose families owned a tractor, but did not own any of the other four proscribed items.

Table 10 shows the decisions and levels of probability regarding differences between scores, according to direction, between those Amish who owned none of the five proscribed items and those Amish who owned at least one of the items other than a tractor.

In five out of eighteen possibilities, the null hypotheses are rejected. The categories showing rejection are eC and eA for the boys and A-S, eA, and wA for the girls. In addition, six of the categories show a direction contrary to that predicted by the null hypotheses. In seven categories, the null hypotheses are accepted. In one of these (Em), the difference is significant for the boys.

(3) Sample of Amish and Non-Amish in Same Schools. In making one further breakdown of the Amish test sample, type of school environment was used as a control factor. This was done on the assumption that the comparison of Amish and non-Amish scores was most meaningful when the two groups to be compared were actually given the tests

TABLE 10. Decisions Regarding Null Hypotheses IIa and IIb for Differences in Scores on Aspects of Personality and FIRO-B Between Groups of Seventh and Eighth Grade, Rural Farm Resident Amish Children Who Differ According to Ownership of Proscribed Items, Excluding Those Who Indicated Owning a Tractor, but None of the Other Four Items.[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis[b]	Probability[c]	Decision Regarding Null Hypothesis[b]	Probability[c]
Aspects of Personality				
Ascendance-Submission	Accept -	> .40	Reject	< .005
Extroversion-Introversion	Accept -	> .15	Accept -	> .45
Emotionality	Accept +	> .025	Accept -	> .05
FIRO-B				
expressed Inclusion	Accept +	> .45	Accept -	> .05
wanted Inclusion	Accept +	> .15	Accept +	> .10
expressed Control	Reject	< .05	Accept +	> .20
wanted Control	Accept -	> .10	Accept +	> .10
expressed Affection	Reject	< .05	Reject	< .025
wanted Affection	Accept +	> .45	Reject	< .01

[a]Number of subjects included in each individual category varies from 51 to 62 boys and from 55 to 69 girls. For mean scores, frequencies and chi-square values, see Table 10 in Appendix.

[b]Accept + indicates scores which follow the hypothesized direction of the null hypotheses. Accept - indicates scores which are opposite to the direction stated by the null hypotheses. Reject indicates scores which do not follow direction of null hypotheses and are significantly different.

[c]Shows probability per one degree of freedom that observed frequencies are due to chance alone.

under the same conditions. The closest approach to similar test conditions necessitates using only those schools in which the Amish and the non-Amish were in the same classrooms. Dividing the Amish children

in these schools according to their ownership of proscribed items constitutes the final breakdown to be considered under the hypotheses concerned with differences in score. In order to retain a sizeable sample, the scores of the children whose families have the tractor only are now included with the scores of the children whose families have one or more of the proscribed items.

Table 11 shows the decisions made regarding differences, according to sex, between the two Amish groups, both of whom were in the same schools with non-Amish children. In two cases (Em for both boys and girls), the null hypotheses are rejected. In five cases--wI and eA

TABLE 11. Decisions regarding Null Hypotheses IIa and IIb for Differences in Scores on Aspects of Personality and FIRO-B Between Seventh and Eighth Grade Groups of Rural Farm Resident Amish Children (in Schools with Non-Amish) Who Differ According to Ownership of Proscribed Items.[a]

Test and Test Category	Boys		Girls	
	Decision Regarding Null Hypothesis[b]	Probability[c]	Decision Regarding Null Hypothesis[b]	Probability[c]
Aspects of Personality				
Ascendance-Submission	Accept -	> .05	Accept +	> .45
Extroversion-Introversion	Accept -	> .30	Accept -	> .10
Emotionality	Reject	< .05	Reject	< .05
FIRO-B				
expressed Inclusion	Accept -	> .20	Accept -	> .30
wanted Inclusion	Accept +	> .15	Accept +	> .45
expressed Control	Accept -	> .30	Accept +	> .40
wanted Control	Accept -	> .05	Accept -	> .10
expressed Affection	Accept +	> .30	Accept -	> .30
wanted Affection	Accept -	> .30	Accept -	> .35

[a]Number of subjects included in each individual category is 25 for the boys and varies from 28 to 31 for the girls. For mean scores, frequencies, and chi-square values, see Table 11 in Appendix.

[b]Accept + indicates scores which follow the hypothesized direction of the null hypotheses. Accept - indicates scores which are opposite to the direction stated by the null hypotheses. Reject indicates scores which do not follow direction of null hypotheses and are significantly different.

[c]Gi[illegible] probability, one degree of freedom that observed fre-

for the boys and A-S, wI, and eC for the girls--the null hypotheses are accepted, although the differences are not significant. In eleven cases--six for the boys and five for the girls--the null hypotheses cannot be rejected, although the differences are not in the hypothesized directions.

Consideration of Hypotheses I and II in Positive Form

Having accepted and rejected the null hypotheses for the various groups and test categories, consideration of the data in terms of the positively stated hypotheses becomes the next step. Table 12 shows a summary of the decisions concerning Hypothesis I when it was stated in

TABLE 12. Acceptance or Rejection of Positively Stated Hypothesis I (Difference in Mean Scores Between Amish and Non-Amish) According to Test Sample, Test Category, and Sex

Group According to Sex and Test Sample	Average No. of Subjects	Aspects of Personality			FIRO-B					
		A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Total Sample										
Boys	237	+	+	-	-	-	-	+	+	-
Girls	250	+	+	-	+	+	+	+	-	-
Rural Farm Residents										
Boys	128	+	-	-	-	-	-	-	-	-
Girls	136	+	+	-	-	-	+	+	-	-
Rural Farm Sample with Amish and Non-Amish Together										
Boys	56	-	-	-	-	-	-	-	-	-
Girls	53	+	+	-	-	-	-	-	-	-

+ indicates significant difference
- indicates nonsignificant difference

the original positive form.[1] These decisions of acceptance and rejection are reversals of the decisions with respective categories as they were

[1] See Chapter II, p. 36.

made when the data were examined according to the null hypotheses. Rejection of the null hypothesis with statistical techniques allows the acceptance of its positive counterpart.

With nine possible acceptances or rejections for the boys and nine more for the girls, the hypothesis of differences between Amish and non-Amish children in the total sample is accepted ten times out of these eighteen possibilities. For the rural farm resident sample of Amish and non-Amish children, the hypothesis of differences is accepted five times out of eighteen possibilities. Finally, for the rural farm sample of Amish and non-Amish children in schools together, the hypothesis of differences in mean scores is accepted in only two out of the eighteen possibilities. With all three samples, the boys showed fewer differences than did the girls.

Table 13 shows a summary of the decisions concerning Hypotheses IIa and IIb of differences between the scores of Amish children when they are grouped according to their ownership of proscribed items. In the rural farm sample of Amish children, none of the differences are significant, but the scores of the Amish with no proscribed items are further from the non-Amish scores in the hypothesized direction in eleven out of eighteen possibilities. While the remaining seven are not in the hypothesized direction, they are not sufficiently different in the other direction to be significant.

Turning again to the entire rural farm sample, a different variable was controlled. This new control consisted of leaving out all those Amish children whose families owned a tractor, but who owned none of the other proscribed items. For this sample, there are eleven instances where the Amish children with no proscribed items score further away, although in the same direction, from the non-Amish than do those Amish children who have at least one of the items in addition to a tractor.

TABLE 13. Acceptance or Rejection of Positively Stated Hypotheses IIa and IIb (Difference in Mean Scores Between Groups of Amish According to Ownership of Proscribed Items) According to Test Sample, Test Category, and Sex.

Group According to Sex and Test Sample	Average No. of Subjects	Aspects of Personality			FIRO-B					
		A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Rural Farm Sample:										
Boys	78	-	ø	ø	-	-	-	-	ø	ø
Girls	87	-	-	-	-	ø	ø	ø	-	-
Rural Farm Sample Leaving Out Those with Tractor Only:										
Boys	58	-	-	0	ø	ø	+	-	+	ø
Girls	64	+	-	-	-	ø	ø	ø	+	+
Rural Farm Sample of Amish in Schools with Non-Amish										
Boys	25	-	-	+	-	ø	-	-	ø	-
Girls	30	ø	-	+	-	ø	ø	-	-	-

+ indicates significant difference in direction as hypothesized.
- indicates nonsignificant difference, but direction as hypothesized.
ø indicates nonsignificant difference, but direction is not as hypothesized.
0 indicates significant difference, but direction is not as hypothesized.

In the rural farm sample of Amish children who were in school with the non-Amish, thirteen of the differences are in the hypothesized direction, and two are significantly so. The five instances which show a direction contrary to that hypothesized are not significantly different.

Test of Hypothesis III - Null Form

Hypothesis III was proposed as a parallel to Hypothesis II. As stated in the null form, this third hypothesis is:

Hypothesis III. Although assuming that friendship groups tend to manifest a similarity in orientation and share boundary-maintaining characteristics, those Amish children whose families have no electricity, no radio, no automobile, no telephone, and no tractor will less often or equally as often choose only other Amish children as their best friends, as will those Amish children whose families possess one or more of the items in question.

In testing Hypothesis II, it was found that the Amish children answer differently on some test categories according to whether or not their families own certain facilities. It is tentatively assumed from this finding that the ownership of these facilities identifies a family which is less conservative than the majority of the Old Order Amish and is perhaps even deviating from the Old Order Amish norms of its church district. It is further assumed that the orientations of the children in this family have become more non-Amish than would be found in the majority of the other Old Order Amish families. Due to this incipient, non-Amish orientation, it is to be expected that the children coming from families owning proscribed items would more often choose non-Amish children as their best friends than would those Amish children whose families do not own any of the proscribed items.

In testing Hypothesis III, the Amish children who were in schools with non-Amish children were divided according to whether or not their families owned proscribed facilities. In ascertaining their choices of friends, their answers on the following question were used:

> "Of those you pal or play with at school, put the name of the person you like best on the first line, the person you like second best on the second line, etc."

While spaces were provided for as many as seven answers, the number of choices varied. In order to consider an equal number of choices

for each child, the first four choices were selected as the ones to be used in the analysis, since the majority of the children gave at least four names. The few who did not give at least four names were not included in the analysis.

Table 14 shows the number and percentage of these Amish children, according to sex and ownership of proscribed items, who chose only other Amish children, or who also chose non-Amish children. The boys show no difference in choice patterns according to ownership of proscribed facilities. The girls show a trend in the direction opposite to that predicted by the null hypothesis; however, the difference is not significant.

TABLE 14. Number and Percentage of Rural Farm Amish Children (in School with Non-Amish) by Sex and Ownership of Proscribed Items Who Chose Only Other Amish or Who Chose Non-Amish Children as Their Best Friends.

Group According to Sex and No. of Proscribed Items	Those Choosing Amish Children Only		Those Choosing Non-Amish Children		Chi Square[a]
	No.	Per Cent	No.	Per Cent	
BOYS					
None	8	50.0	8	50.0	0.00
One or More	4	50.0	4	50.0	
GIRLS					
None	8	53.3	7	46.7	1.08
One or More	4	33.3	8	66.7	
GROUP					
None	16	51.6	15	48.4	0.66
One or More	8	40.0	12	60.0	

[a]Shows chi-square value of difference between the number of Amish children making in-group choices and the number of Amish children making out-group choices. Since the hypothesis predicts direction, probabilities associated with one-tailed test would be used. None of the chi-square values are statistically significant (at or below the .05 level) for one degree of freedom.

The numbers are already quite small in this rural farm sample of Amish and non-Amish in the same schools. In an attempt to clarify the trend noted in the choices by the girls, a count was made of the individual choices.

Table 15 shows the frequency of Amish and non-Amish choices by sex and the groups of Amish children according to ownership of proscribed facilities. Whatever trend was begun in counting the number of Amish children who chose non-Amish children has nearly disappeared in counting the actual number of choices. Both groups in both sexes chose Amish children about three out of four times. The chi-square values for

TABLE 15. Frequency and Percentage by Sex and Ownership of Proscribed Items of In-Group and Out-Group Choices by Rural Farm Amish Children Who Were in the Same Schools With Non-Amish Children.

Group According to Sex and Number of Proscribed Items	Choices of Amish Children		Choices of Non-Amish Children		Chi Square[a]
	No.	Per Cent	No.	Per Cent	
BOYS					
None	47	73.4	17	26.6	0.03
One or More	24	75.0	8	25.0	
GIRLS					
None	47	78.3	13	21.7	0.17
One or More	36	75.0	12	25.0	
GROUP					
None	94	75.8	30	24.2	0.02
One or More	60	75.0	20	25.0	

[a]Shows chi-square value of difference between the number of choices made of Amish children and the number of choices made of non-Amish children. None of the chi-square values are significant (at or below the .05 level) for one degree of freedom.

the differences are all insignificant. While the self-preference of the Amish children is fairly high, the ownership of proscribed items or facilities makes almost no difference in the direction of friendship choice according to the group tested here.

Since it is impossible to reject the null form of Hypothesis III, the positively stated form is rejected.

CHAPTER V

SUMMARY, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

This study has been an attempt to discover evidences of boundary maintenance and systemic linkage between the Old Order Amish and non-Amish social systems through the analysis of scores received by Amish and non-Amish school children on two standardized tests--Aspects of Personality and FIRO-B (Fundamental Interpersonal Relations Orientation in Behavioral Aspects).

By maintaining boundaries--a special dress and appearance; proscriptions against owning certain items such as automobiles; allowing only farming or related occupations; separation from the "world," et cetera--the Amish have managed to retain a unique way of life in the midst of a changing American society. However, through the linkage of Amish and non-Amish social systems--in schools, through commercial and business contacts, neighborhood activities, et cetera--the Old Order Amish have been exposed to other beliefs, norms of behavior and values which they have not been fully successful in resisting.

In the examination of the literature comparing Amish and non-Amish personalities through the use of standardized inventories, it was noted that several writers came to the conclusion that Amish children had less well-adjusted personalities than did non-Amish children. However, the findings seemed to be very inconclusive, suggesting that there was one or more factors other than religion which may have led to a difference in the test scores. In an attempt to isolate at least two of the possible factors--residence patterns and differences in conservatism among the Amish--this study was designed around two hypotheses, with a third hypothesis made as a parallel to the second. Chi square was used as a statistical test of the hypotheses.

Summary of the Findings

It was first hypothesized that differences would be found between scores of the Amish children and scores of the non-Amish children on the two tests used in this study. In a sample of 233 Amish children and 316 non-Amish children, it was found that the scores of Amish boys differed significantly from the scores of the non-Amish boys in four out of nine categories on the two tests. The girls differed significantly in six out of the nine categories.

Upon controlling for residence, however, and testing for differences between rural farm Amish children and rural farm non-Amish children, the two religious groups differed significantly five times--once for the boys and four times for the girls. Upon further controlling for test conditions--using only those Amish and non-Amish children who were in classrooms with non-Amish and Amish children, respectively--no significant differences were found for the boys, and two were found for the girls. While some of the decrease in significance may have been due to a smaller sample size, it was nevertheless necessary to reject the hypothesis of significant differences between rural farm resident Amish and non-Amish children in this particular sample and with the use of chi-square test. However, it can be said that there was a slight tendency to differ.

It was assumed that the test scores were evidences of the orientations of those children taking the tests. Due to the assumed differences between Amish and non-Amish orientations--the awareness which they would have of their social, cultural, and personal relationships and surroundings--the Amish child can be expected to answer somewhat differently from a non-Amish child. However, there are also differences within the Amish group in relation to the maintenance

of boundaries, some Amish families having adopted certain practices (common in American society) which are proscribed for the Old Order Amish as a whole.

Based on the literature about the Amish and the percentage of Old Order Amish children in the sample whose families owned certain items, five items were selected to indicate a weakening of boundary maintenance, if they were owned by Amishmen, or a strong boundary maintenance, if they were not owned by Amishmen. The five items were: Electric lighting facilities, automobiles, tractors, radios, and telephones. It was then hypothesized that those Old Order Amish children whose families had maintained strict boundaries by not adopting certain aspects of American culture would have orientations which are less similar to the non-Amish orientations than would those Old Order Amish children whose families have adopted certain practices of the general American society.

In testing the second hypothesis, use was made of the scoring differences found in testing the first hypothesis. If the differences were not significant, the difference in score between Amish and non-Amish was assumed to be in the same direction (numerically greater or smaller) as would have been the case if the difference had been significant. For example, if the non-Amish mean score on a certain category were 15.0 and the Amish mean score were 14.0, the prediction was that the Amish children with one or more of the proscribed items would tend to score higher than 14.0, while the Amish children with none of the items would tend to score lower than 14.0.

In the rural farm sample, the Old Order Amish children with strong boundary maintenance (no proscribed items) scored numerically farther away from the non-Amish in eleven out of eighteen possibilities; but there were no significant differences between the two Amish groups.

One further control was made with the rural farm test sample to determine the effect on the mean scores of those Amish children whose families owned a tractor but none of the other items. Leaving out those Amish children whose families owned tractors but had none of the other items, the direction in mean score between the Amish children with strong boundary maintenance and the Amish children with weak boundary maintenance (owning at least one other item besides the tractor) was correctly predicted in eleven out of eighteen possibilities. Five of these eleven correctly predicted differences were statistically significant with the chi-square test.

In the case of the rural farm test sample including only the Amish and non-Amish children who were in schools together, the direction was correctly predicted in thirteen out of the eighteen possibilities, and two of these differences were significant.

In attempting to determine the patterns of friendship choice according to the same criterion (owning proscribed items), it was next hypothesized that the Amish children having none of the proscribed items would tend to make more Amish choices if their orientation were really less non-Amish. However, this hypothesis could not be accepted. The ownership of proscribed items shows only a slight effect toward influencing a greater number of non-Amish choices.

Conclusions

(1) Conclusions based on the data. Reported differences in personality characteristics between Amish and non-Amish children seem to be true in a general sense. There is an indication that Amish children respond to statements on standardized tests in a manner which is somewhat different from the responses made by non-Amish children in the same general territory. Judging from the evidence in this study,

however, at least some of this difference in response can be attributed to the fact that comparisons between Amish and non-Amish children are also comparisons between children who experience an essentially rural farm environment and children who come from varied environments--farm as well as rural nonfarm and town backgrounds. Furthermore, the similarities in religious atmosphere, occupational orientations, level of living, and social experiences result in a sample of Amish children whose cultural and social environments are relatively homogeneous in comparison to the various activities, ideas, vocational opportunities, and styles of life which are possible among the non-Amish. It is therefore not surprising to find differences.

Controlling for two variables, however, resulted in a disappearance of most of these differences in this study. Controlling for residence--comparing rural farm Amish children with rural farm non-Amish children--cut in half the number of test categories showing differences. Controlling further for test conditions and school environment (using only the scores of Amish children who were in school with non-Amish children and vice versa) brought the number of statistically significant differences down to two out of eighteen possibilities.

A clearer indication of differences where Amishness or non-Amishness is under consideration results from seeing these two qualities in terms of a continuum. Dividing the scores of Old Order Amish children according to their families' ownership of certain items which are, in general, proscribed for the Old Order Amish points toward a direction in scoring patterns. The Amish who show fewer indications of changing their way of life tend to score least like the non-Amish. It is evident from this observation that speaking of the Amish as different from the non-Amish may be true, but such a generalization tends to obscure the differences among the Amish themselves.

These differences, according to ownership of proscribed items, seem to be less operative in choosing friends across religious lines than in responding to standardized tests. Being Amish, as such, tends to restrict friendship choices to other Amish children in three out of four cases according to the sample in this study. Very little deviation from this pattern is shown by dividing the Amish according to their ownership of proscribed items.

(2) General conclusions. The school experience itself serves as a situation where linkage between the Amish and non-Amish social and cultural systems is part of the Amish child's socialization process. Even if the Amish child is not in interaction with non-Amish children, he is nevertheless being exposed to ideas which serve as a linkage to the larger American society. It appears, from the general similarity in test responses, that Amish and non-Amish children have developed similar personality orientations by the time they have reached the seventh and eighth grades. Judging from the test results themselves, the rural farm Amish children as a whole show little deviation from rural farm non-Amish in the ways in which they respond to test statements. Boundary maintenance seems to be at a minimum, and linkage between the two systems seems to be almost complete in terms of general orientations. Only by dividing the Amish children into groups according to boundary-maintaining characteristics of their families does the evidence for differences become clearer. Those Amish children who come from families showing a relaxatinn of boundaries in certain areas show a greater tendency toward assuming an essentially rural farm non-Amish orientation. Those who have maintained strict boundaries show a tendency, on the other hand, to be less like the non-Amish in orientation.

Judging from the way in which Amish and non-Amish children scored on the two tests used in this study, boundaries between the Amish and non-Amish are most clearly maintained through the retention of a rural way of life. Linkage between the Amish and non-Amish social systems appears to be greatest with those non-Amish who live on farms. However, even more important appears to be strict adherence to rules against owning certain items which are proscribed for the Amish.

Interpretations of the Test Scores

The data gathered through the use of Aspects of Personality and FIRO-B have been largely restricted in this study to their usefulness in testing the hypotheses. As explained in Chapter II, the purpose of using the scores of these two tests in this study was not for whatever information might have been derived in terms of personality dimensions or the interpretation of Amish and non-Amish interaction. Nevertheless, certain meanings are attributed to these tests by their authors; and, if the tests are valid, the scoring patterns should have meaning for the interpretation of Amish and non-Amish personality characteristics as well as Amish and non-Amish orientations toward interpersonal relations. While not actually a part of the problem of this study, an attempt will be made to make interpretations of these scores.

In assessing the differences in scores on these tests, minor variations will be ignored; and the differences that were statistically significant will largely constitute the bases for discussion. It should be remembered that any conclusions in this section should be prefaced by qualifications depending upon the validity of the tests.

The differences in scores will be examined in two sections: (1) Differences between Amish and non-Amish children, and (2) differences

between groups of Amish according to ownership of proscribed facilities as outlined earlier in this study.

(1) Differences between Amish and non-Amish. In the general sample, there is an indication in the scores on Aspects of Personality that the Amish boys are somewhat more submissive and introverted than are the non-Amish. They also tend to have a greater desire to be controlled by others and to act close and personal with people than do non-Amish boys, as shown by scores in FIRO-B. In the rural farm sample, the same tendencies are shown in all of these areas except for Extroversion-Introversion, in which the non-Amish tend more toward introversion than do the Amish. Only the difference in Ascendance-Submission is significant.

The Amish girls in the general sample also show a tendency toward submissiveness and introversion, as shown by scores on Aspects of Personality. On FIRO-B, they share with the Amish boys a tendency to initiate interaction with people, less desire to be included in groups, and more indication that they control people. The tendencies toward submissiveness and introversion on the part of Amish girls are retained in both the rural farm sample as a whole and in the rural farm sample where the Amish and non-Amish are in schools together. The only differences in FIRO-B which are retained in the rural farm sample are the desires of the Amish girls to control and to be controlled.

The boys and girls in all three samples show no differences in emotional stability nor in wanting people to get close and personal with them as far as the Amish/non-Amish dichotomy is concerned.

(2) Differences between groups of Amish children according to ownership of proscribed facilities. No significant differences were found in the rural farm sample between the scores of Amish children whose families have one or more of the proscribed facilities and those Amish

children whose families have none of these facilities. In the rural farm sample with Amish and non-Amish children in the same schools, however, the Amish boys with no facilities seem to be slightly more stable emotionally than the Amish boys with one or more facilities. The Amish girls show the opposite direction, with the ones whose families have no proscribed facilities being the less stable emotionally.

In returning to the rural farm sample and leaving out the scores of the Amish children whose families have a tractor but no other proscribed item, several significant differences appear. The Amish boys with no proscribed facilities show a tendency to be more stable emotionally, to have less desire to control people, and to have a greater desire to act in an intimate and personal way with others. The Amish girls with no proscribed facilities tend to be more submissive, to have a greater desire to act intimately with others, and to have a greater desire for people to get close and personal with them. Neither the Amish boys nor the Amish girls in the two groups according to ownership of proscribed facilities show significant differences in Extroversion-Introversion in the tendency to initiate action with other people in the desire to be included nor in the desire to be controlled.

Evaluation of Test Results

The above interpretation is made with the recognition that caution is needed in evaluating investigations that deal with central tendencies, even on the basis of standardized tests. It is probably true that members of any enduring social system tend to manifest certain personality traits more frequently than do members of other different social systems. While not denying the part played by constitutional factors, the similarities within groups are probably in large part due to formative influences of the environment.

In Chapter I of this study, an outline was made of some of the ways in which Amish culture differs from the general American culture of the non-Amish people who live near the Amish. From these cultural differences can be hypothesized certain variations which might tend to appear in the respective Amish and non-Amish personalities. However, while the personality of the Amish child can be expected, on the one hand, to be representative of Amish culture, the Amish child must also be seen as a potential dissenter from his way of life. This seems to be especially true of some of the young men. Hostetler notes that "Status among the young men is attained either by showing a special interest in the church and Amish religion or by the opposite, being a nonconformist to the established religious folkways and mores. All young people tend to show their loyalty to leadership in one or the other of the two groups."[1]

The Amish children are taught in the home that they must be different from non-Amish children; and, for many of the Amish children, this sense of separation is probably internalized in the personality, although this study does not have evidence to show such internalization. Through such internalization, they become less receptive to new ideas because they are provided with satisfaction in lieu of world frivolities. The school situation, however, can have a secularizing influence. By the time the Amish children reach the seventh and eighth grades, it seems quite possible they have developed somewhat of a double orientation--(1) the Amish orientation, and (2) the school orientation.

With non-Amish playmates, the Amish children learn other ways of thinking and acting. From the curriculum itself, a seemingly innocuous and neutral body of information and knowledge, is imparted a learning which has nothing necessarily to do with being Amish. This situation

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[1] John A. Hostetler, "The Amish Family in Mifflin County, Pennsylvania," op. cit., p. 108.

is defined by the Amish culture only to the extent that a trust has been placed in the Amish children to retain the values taught in the home. There are, of course, rewards and positive sanctions for remaining good Amishmen; however, the only other method of limiting this secular influence is the objection to school consolidation and high school education where the influence might become too great. The essential point of this discussion, however, is the hypothesis that many Amish children adopt essentially non-Amish orientations in the school situation. This seems to be evidenced by the similarity between Amish and non-Amish scores seen in this study.

In the personalities and in ways of thinking, the Amish and non-Amish systems have become closely linked. The maintenance of boundaries in other ways then becomes very important. The dress and appearance of the Amish children, the accustomed norms of behavior, the security of group acceptance--all of these become formidable deterents to overthrow if there is a desire to make a complete change.

It is easy to overstate one side of this problem. While it is difficult to say how strongly the group norms have been internalized in the individual Amish personality, it is generally accepted that the Amishman actually believes the ways of his group to be the best. This is to say that he feels "right" when he does those things which are considered "right," but feels guilty and ashamed when he deviates. Once the critical period of youth is passed, there is increased pressure for conformity through such internalization of group values.

Suggestions for Further Research

The limitations of this study offer bases for making suggestions in further research. Two subjects are selected here for further attention:

(1) Selection of the sample. The difficulties in selecting a random sample of Amish children was mentioned in Chapter II. However, a further difficulty can be seen in the possibility that there are certain weaknesses in using Mennonites as non-Amish in comparison with Amish children. The Amish recognize the difference between Mennonites and non-Mennonites and consider it more serious for an Amishman to join a non-Mennonite Protestant church than for him to join a Mennonite church. Various ideological and theological similarities--belief in nonresistance, belief in separation from the world, et cetera--foster Amish identification with Mennonites rather than non-Mennonites.

The original number of Mennonites (142) in the overall sample was smaller than the number of non-Mennonites (174). While less than one-fourth (40) of the non-Mennonites were farm residents, one half (72) of the Mennonites lived on farms. The final comparisons were made between the Amish and a group made up largely of Mennonites, whereas the first comparisons had been made between the Amish and a group which was predominantly non-Mennonite.

To avoid the possible confusion created by using Mennonites as non-Amish, it might be advisable to conduct further tests in Amish areas which do not include Mennonites. Comparisons of these Amish children with the non-Mennonite children in the schools they attend might well provide more reliable information regarding Amish and non-Amish differences.

(2) The use of standardized tests in determining cultural differences. Personality inventories, at best, can offer only broad indications of group characteristics. And, having given these, it is not entirely certain from viewing test results in themselves whether these group characteristics thus outlined are actual behavioral characteristics of the subjects

or are merely responses to certain value judgements stimulated by the structure of the tests' statements. Not enough is known of the reaction of Amish children to their school environment. From their church and home, they learn of the opposition to formal education beyond the eighth grade. They are instructed in the values of being different and of maintaining a separation from the non-Amish people. Having received such an emphasis on being different, it does not seem unusual to hypothesize that Amish children will answer differently from non-Amish children. Yet, in many respects, the differences are slight and seem to be attributable more to the confinement of their traditionally rural way of life rather than to religiously induced attitudes. If the answers were consistent with their socialization patterns, one would expect a low percentage of Amish agreement with statements such as the following: "I like to go to the movies." Ninety-one per cent of the non-Mennonites indicated that they liked to go to the movies. Of the Mennonites, on the other hand, only 37 per cent said they liked to go to movies. Such a decrease is to be expected, since Mennonites are often highly unfavorable to attendance at moving picture theatres. However, while it would be expected that the Amish children would register even less acceptance, 55 per cent of the Amish agreed with the statement.

Response to a similar statement with regard to radio listening brought the following percentages of agreement according to religious group: Amish, 87 percent agreeing; Mennonites, 90 per cent agreeing; and non-Mennonites, 78 per cent agreeing. While the Mennonites are allowed the ownership and use of radios, the Amish are supposedly in opposition to the ownership of such worldly devices.

Neither of the two statements just mentioned influences the scoring patterns, since they were used as extra items to break up the emotional

character of one of the categories in Aspects of Personality. But, if they are an indication of how the Amish tend to answer, the difficulties in prediction and interpretation become quite evident.

The point to be made here is that responses to statements on personality tests are not entirely consistent with the apparent norms, values, and beliefs of the Amish social system. It is known that the exposure of Amish young people to "worldly" ways is a serious threat to the Amish way of life. It is also known that many Amish youth do not return to the church of their parents once they have tasted of the "world." But there seems to be some question that the responses to standardized test items are really reliable in evaluating the personalities of the Amish children according to the meanings attributed to the tests. While this study has demonstrated findings consistent with the sociological knowledge of the Amish social system, the differences in dimensions of personality are not clearly established.

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APPENDIX

TABLE I

Comparisons on Aspects of Personality Scores in Mixed Schools of Amish and non-Amish Children

Grades Studied	Study Done by	Religious Group	Average No. of Subjects	Ascendance-Submission		Extroversion-Introversion		Emotionality	
				Mean Score	Diff.	Mean Score	Diff.	Mean Score	Diff.
Four, Five, and Six	Engle, 1942 Indiana	Amish	44	13.5		19.2		24.5	
		Non-Amish	41	15.1	+1.6	21.6	+2.4	24.5	0.0
	Stuffle, 1955 Indiana	Amish	30	15.5		19.4		21.6	
		Non-Amish	30	15.7	+0.2	22.1	+2.6	23.3	+1.7
	Jantzen, 1958 and 1959 Ind. and Pa.	Amish	93	14.6		20.3		24.5	
		Non-Amish	72	15.5	+0.9	21.3	+1.0	25.5	+1.0
Seven and Eight	Engle, 1942 Indiana	Amish	36	11.0		18.6		26.7	
		Non-Amish	45	13.3	+2.3	21.0	+2.4	26.9	+0.2
	Smith, 1955 Pennsylvania	Amish	120	14.7		20.1		23.8	
		Non-Amish	108	16.8	+2.1	23.2	+3.1	24.6	+0.8
	Jantzen, 1958 and 1959 Ind. and Pa.	Amish	69	12.3		20.1		26.1	
		Non-Amish	100	14.9	+2.6	21.5	+1.4	26.4	+0.3

TABLE 2

Mean Score Differences on Aspects of Personality and FIRO-B By Religion and Residence for Grades Seven and Eight

Test Categories	Amish Rural Farm Mean Score	Non-Amish Deviations from Amish Mean Score		
		Rural Farm	Rural Nonfarm	Town
Aspects of Personality:				
Ascendance-Submission	12.7	+2.3	+2.2	+3.5
Extroversion-Introversion	20.1	+1.6	+1.8	+1.0
Emotionality	25.3	+1.5	+1.2	- 0.2
FIRO-B:				
expressed Inclusion	5.5	+0.7	+0.5	+0.4
wanted Inclusion	5.8	+0.5	+0.1	+0.1
expressed Control	2.8	-0.3	- 0.5	-0.5
wanted Control	6.9	- 0.9	- 1.7	-1.7
expressed Affection	6.0	-0.8	- 0.9	- 0.8
wanted Affection	5.3	-0.1	- 0.6	- 0.6

TABLE 3

Mean Score Differences on Aspects of Personality and FIRO-B by Residence for Grades Seven and Eight for Amish and Non-Amish in same School

Test Categories	Mean Score of Amish	Non-Amish Deviations from Amish Mean Score		
	Rural Farm	Rural Farm	Rural Nonfarm	Town
Aspects of Personality:				
Ascendance-Submission	12.0	+3.0	+3.1	+2.6
Extroversion-Introversion	20.2	+1.1	+1.6	+1.6
Emotionality	26.3	+0.8	+0.1	- 1.2
FIRO-B:				
expressed Inclusion	5.8	0.0	0.0	- 0.2
wanted Inclusion	6.2	- 0.1	- 1.0	- 0.5
expressed Control	2.2	+0.4	+0.1	+ 0.1
wanted Control	6.4	-0.1	-0.7	- 1.0
expressed Affection	6.5	-1.1	- 1.5	- 1.5
wanted Affection	6.1	-0.3	- 1.2	- 1.4

TABLE 4

Selected Characteristics of the Rural Farm Resident Test Sample

Characteristics		Amish		Non-Amish	
		No.	Per Cent	No.	Per Cent
Sex	Boys	83	46.9	58	51.8
	Girls	94	53.1	54	48.2
Grade	Seventh	90	50.8	53	47.3
	Eighth	87	49.2	59	52.7
State	Pennsylvania	100	56.5	49	43.8
	Indiana	77	43.5	63	56.2
Occupation of Father	Farmer	162	91.5	85	75.9
	Semi-skilled or Skilled	12	6.8	13	11.6
	Other	3	1.7	14	12.5
Language Spoken at Home	Pennsylvania-German	167	95.4	21	18.9
	English	8	4.6	90	81.1
Attends Church Regularly	Yes	164	97.0	104	92.9
	No	5	3.0	8	7.1
Religious Affiliation	Amish	177	100.0	-	-
	Mennonite	-	-	72	64.3
	Other Protestant	-	-	37	33.0
	None	-	-	3	2.7

TABLE 5

Schools Included in Samples Showing Number by Religious Group in General Sample and in Rural Farm Resident Test Sample

State, County, and School Name	Total Number in Grades Seven and Eight			Number in Rural Farm Test Sample		
	Amish	Non-Amish	Total	Amish	Non-Amish	Total
INDIANA						
Allen County						
1. Milan Center.....	22	15	37	18	5	23
Elkhart County						
2. Middlebury.....	16	67	83	14	19	33
3. Clinton.....	14	10	24	11	3	14
LaGrange County						
4. Honeyville.....	32	0	32	32	0	32
5. Topeka.....	18	45	63	12	14	26
Noble County						
6. Perry Central.....	4	31	35	4	21	25
PENNSYLVANIA						
Lancaster County						
7. Conestoga.....	0	15	15	0	9	9
8. Intercourse.....	70	2	72	54	2	56
9. Mount Pleasant.....	44	0	44	35	0	35
10. Pequea Valley.....	0	104	104	0	22	22
11. Western.....	11	21	32	11	11	22
MARYLAND						
Garret County						
12. Yoder.....	2	6	8	1	6	7
Totals.....	233	316	549	192	112	304

TABLE 6

Mean Scores on Aspects of Personality and FIRO-B by Sex and Religion for Grades Seven and Eight

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
Amish	14.0	21.2	26.5	5.3	5.8	2.6	6.4	5.8	5.2
Non-Amish	16.0	22.3	26.8	5.8	5.7	2.8	5.3	5.0	4.8
Both	14.9	21.7	26.6	5.6	5.7	2.7	5.8	5.4	5.0
Number Scoring:									
At/Below Mean									
Amish	75	67	51	74	59	70	54	42	67
Non-Amish	44	43	43	89	70	95	94	81	93
Above Mean									
Amish	35	43	59	29	50	34	57	68	41
Non-Amish	54	55	54	56	75	50	50	63	53
Totals:									
Amish	110	110	110	103	109	104	111	110	108
Non-Amish	98	98	97	145	145	145	144	144	146
Both	208	208	207	248	254	249	255	254	254
Chi-Square of Differences	11.5	6.0	0.1	2.9	0.9	0.1	7.1	8.2	0.1
GIRLS									
Mean Scores:									
Amish	11.5	18.9	25.2	5.3	6.0	2.8	6.7	6.2	5.8
Non-Amish	14.7	21.3	26.3	6.2	6.4	2.1	5.8	5.3	5.0
Both	13.0	20.0	25.7	6.0	6.2	2.4	6.2	5.7	5.3
Number Scoring:									
At/Below Mean									
Amish	81	73	59	74	57	44	46	63	54
Non-Amish	42	40	49	82	56	101	88	103	94
Above Mean									
Amish	34	42	56	38	56	56	62	52	58
Non-Amish	60	62	53	76	101	55	64	55	64
Totals:									
Amish	115	115	115	112	113	100	108	115	112
Non-Amish	102	102	102	158	157	156	152	158	158
Both	217	217	217	270	270	256	260	273	270
Chi Square of Differences	18.9	12.8	.23	5.4	5.9	10.7	5.9	3.0	3.4

TABLE 7

Mean Scores on Aspects of Personality and FIRO-B By Sex and Religion for Seventh and Eighth Graders With Rural Farm Residence

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
Amish	14.2	21.4	25.9	5.3	5.6	2.7	6.7	5.9	5.0
Non-Amish	16.0	22.1	26.5	6.1	6.2	2.9	5.7	5.3	5.2
Both	14.8	21.6	26.1	5.7	5.9	2.8	6.3	5.7	5.1
Number Scoring:									
At/Below Mean									
Amish	53	49	39	51	44	50	35	44	48
Non-Amish	18	17	15	32	23	35	30	34	30
Above Mean									
Amish	30	34	44	19	33	26	44	33	27
Non-Amish	22	23	25	24	32	21	25	20	25
Totals:									
Amish	83	83	83	70	77	76	79	77	75
Non-Amish	40	40	40	56	55	56	55	54	55
Both	123	123	123	126	132	132	134	131	130
Chi Square of Differences	3.9	2.9	.99	3.4	3.0	.15	1.4	.45	1.2
GIRLS									
Mean Scores:									
Amish	11.4	18.9	24.8	5.7	5.9	2.9	7.2	6.1	5.6
Non-Amish	14.0	21.3	27.1	6.2	6.4	2.0	6.2	5.1	5.1
Both	12.2	19.6	25.5	5.9	6.1	2.6	6.8	5.7	5.4
Number Scoring:									
At/Below Mean									
Amish	58	56	50	52	45	45	39	53	44
Non-Amish	14	15	17	26	22	43	36	37	29
Above Mean									
Amish	36	38	44	31	38	32	44	38	40
Non-Amish	27	26	24	27	32	10	17	16	24
Totals:									
Amish	94	94	94	83	83	77	83	91	84
Non-Amish	41	41	41	53	54	53	53	53	53
Both	135	135	135	136	137	130	136	144	137
Chi Square of Differences	8.7	6.1	1.6	2.4	2.4	7.4	5.7	1.9	.07

TABLE 8

Mean Scores on Aspects of Personality and FIRO-B By Sex and Religion for Seventh and Eighth Grade, Rural Farm, Amish and Non-Amish Children in Schools Together

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
Amish	13.3	21.8	26.8	5.6	5.8	2.2	6.2	6.3	5.8
Non-Amish	16.0	21.3	26.4	5.4	5.7	2.9	5.8	5.1	5.6
Both	14.6	21.5	26.6	5.5	5.7	2.6	5.9	5.6	5.7
Number Scoring:									
At/Below Mean									
Amish	16	14	12	18	13	18	16	11	14
Non-Amish	12	11	12	25	16	21	17	21	19
Above Mean									
Amish	9	11	13	7	12	7	9	14	11
Non-Amish	13	14	13	9	18	13	17	13	14
Totals:									
Amish	25	25	25	25	25	25	25	25	25
Non-Amish	25	25	25	34	34	34	34	34	33
Both	50	50	50	59	59	59	59	59	58
Chi Square of Differences	1.3	.72	.00	.02	.14	.67	1.2	1.8	.01
GIRLS									
Mean Scores:									
Amish	11.0	18.8	25.9	6.0	6.6	2.3	6.6	6.7	6.3
Non-Amish	13.5	21.3	27.9	6.2	6.7	2.3	6.9	5.7	6.2
Both	11.9	19.8	26.6	6.1	6.6	2.3	6.7	6.3	6.3
Number Scoring:									
At/Below Mean									
Amish	21	21	15	16	19	18	18	12	11
Non-Amish	6	6	9	13	15	14	13	13	14
Above Mean									
Amish	10	10	16	14	9	10	11	18	18
Non-Amish	12	12	9	13	11	12	13	12	11
Totals:									
Amish	31	31	31	30	28	28	29	30	29
Non-Amish	18	18	18	26	26	26	26	25	25
Both	49	49	49	56	54	54	55	55	54
Chi Square of Differences	5.4	5.4	.01	.06	.60	.61	.81	.79	1.8

TABLE 9

Mean Scores on Aspects of Personality and FIRO-B by Sex and Ownership of Proscribed Items for Seventh and Eighth Grade Rural Farm Resident Amish Children

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
No Items	13.6	21.5	26.2	5.3	5.3	2.5	7.0	5.9	5.1
One or More	15.0	21.3	25.6	5.4	6.0	2.9	6.3	6.0	4.9
Non-Amish	16.0	22.1	26.5	6.1	6.2	2.9	5.7	5.3	5.2
Amish	14.2	21.4	25.9	5.3	5.6	2.7	6.7	5.9	5.0
Number Scoring:									
At/Below Mean[1]									
No Items	27	20	21	17	22	30	23	25	28
One or More	17	15	18	11	16	20	23	19	20
Above Mean[1]									
No Items	21	28	27	22	22	13	22	19	15
One or More	18	20	17	20	17	13	11	14	12
Totals:									
No Items	48	48	48	39	44	43	45	44	43
One or More	35	35	35	31	33	33	34	33	32
All Amish	83	83	83	70	77	76	79	77	75
Chi Square of Differences	.48	.01	.48	.47	.02	.70	2.2	.004	.05
GIRLS									
Mean Scores:									
No Items	11.0	18.3	24.7	5.6	5.9	2.8	7.0	6.2	5.8
One or More	12.2	19.7	24.9	5.9	5.9	3.1	7.5	6.0	5.3
Non-Amish	14.0	21.3	27.1	6.2	6.4	2.0	6.2	5.1	5.1
Amish	11.4	18.9	24.8	5.7	5.9	2.9	7.2	6.1	5.6
Number Scoring:									
At/Below Mean[1]									
No Items	33	31	30	35	26	25	24	29	27
One or More	18	18	16	18	19	20	15	24	23
Above Mean[1]									
No Items	23	25	26	15	22	19	26	26	22
One or More	20	20	22	15	16	13	18	12	12
Totals:									
No Items	56	56	56	50	48	44	50	55	49
One or More	38	38	38	33	35	33	33	36	35
All Amish	94	94	94	83	83	77	83	91	84
Chi Square of Differences	1.2	.6	1.2	2.1	.00	.11	.05	1.7	.95

[1]Refers to Amish mean.

TABLE 10

Mean Scores on Aspects of Personality and FIRO-B by Sex and Ownership of Proscribed Items for Seventh and Eighth Grade Rural Farm Resident Amish Children (Leaving out those whose family has tractor only)

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
No Items	13.6	21.5	26.2	5.3	5.3	2.5	7.0	5.9	5.1
One or More	15.6	22.1	24.3	4.9	5.3	4.1	6.7	5.6	4.3
Non-Amish	16.0	22.1	26.5	6.1	6.2	2.9	5.7	5.3	5.2
Amish	14.1	21.7	25.7	5.2	5.3	2.8	6.9	5.8	4.9
Number Scoring:[1]									
At/Below Mean									
No Items	27	28	21	17	15	30	23	25	28
One or More	7	6	10	5	6	5	9	9	7
Above Mean[1]									
No Items	21	20	27	22	29	13	22	19	15
One or More	7	8	4	7	6	7	5	4	4
Totals:									
No Items	48	48	48	39	44	43	45	44	43
One or More	14	14	14	12	12	12	14	13	11
All Amish	62	62	62	51	56	55	59	57	54
Chi-Square of Differences	.17	1.1	3.3	.01	1.0	3.2	.75	3.7	.008
GIRLS									
Mean Scores:									
No Items	11.0	18.3	24.7	5.6	5.9	2.8	7.0	6.2	5.8
One or More	13.4	19.2	26.1	6.1	5.3	3.8	7.6	5.2	4.3
Non-Amish	14.0	21.3	27.1	6.2	6.4	2.0	6.2	5.1	5.1
Amish	11.4	18.5	24.9	5.7	5.8	3.0	7.1	6.0	5.5
Number Scoring:[1]									
At/Below Mean									
No Items	33	31	30	35	26	25	24	29	27
One or More	4	7	4	6	8	5	4	11	11
Above Mean[1]									
No Items	23	25	26	15	22	19	26	26	22
One or More	9	6	9	6	3	6	8	2	1
Totals:									
No Items	56	56	56	50	48	44	50	55	49
One or More	13	13	13	12	11	11	12	13	12
All Amish	69	69	69	62	59	55	62	68	61
Chi Square of Differences	7.0	.01	2.2	1.7	1.3	.46	.84	4.4	5.5

[1]Refers to Amish Mean

TABLE 11

Mean Scores on Aspects of Personality and FIRO-B by Sex and Ownership of Proscribed Items for Seventh and Eighth Grade Rural Farm Resident Amish Children Who are in Schools with Non-Amish Children

	Aspects of Pers.			FIRO-B					
BOYS	A-S	E-I	Em	eI	wI	eC	wC	eA	wA
Mean Scores:									
No Items	12.1	22.1	28.1	5.7	5.3	1.8	6.7	6.2	5.9
One or More	15.0	21.4	25.0	5.3	6.6	2.8	5.3	6.4	5.5
Non-Amish	16.0	21.3	26.4	5.4	5.7	2.9	5.8	5.1	5.6
Amish	13.3	21.8	26.8	5.6	5.8	2.2	6.2	6.3	5.8
Number Scoring:[1]									
At/Below Mean[1]									
No Items	10	9	5	10	9	9	8	6	8
One or More	4	5	7	8	4	5	8	5	6
Above Mean[1]									
No Items	5	6	10	5	6	6	7	9	7
One or More	6	5	3	2	6	5	2	5	4
Totals:									
No Items	15	15	15	15	15	15	15	15	15
One or More	10	10	10	10	10	10	10	10	10
All Amish	25	25	25	25	25	25	25	25	25
Chi Square of Differences	1.7	.24	3.2	.53	.96	.24	1.9	.24	.11
GIRLS									
Mean Scores:									
No Items	11.0	18.6	24.6	5.9	6.8	2.3	6.2	7.2	6.4
One or More	10.9	19.2	27.7	6.2	6.3	2.3	7.2	6.1	6.2
Non-Amish	13.5	21.3	27.9	6.2	6.7	2.3	6.9	5.7	6.2
Amish	11.0	18.8	25.9	6.0	6.6	2.3	6.6	6.7	6.3
Number Scoring:[1]									
At/Below Mean[1]									
No Items	10	13	11	10	11	10	12	9	6
One or More	7	7	4	6	8	8	6	7	5
Above Mean[1]									
No Items	8	5	7	8	5	6	5	9	11
One or More	6	6	9	6	4	4	6	5	7
Totals:									
No Items	18	18	18	18	16	16	17	18	17
One or More	13	13	13	12	12	12	12	12	12
All Amish	31	31	31	30	28	28	29	30	29
Chi Square of Differences	.01	1.1	2.8	.09	.01	.05	1.3	.2	.12

[1]Refers to Amish Mean.

NAME _____

GROUP _____

DATE _____

MALE ____ FEMALE _____

AGE _____

I C A

e

w

FIRO-B

Please place number of the answer that best applies to you in the space at the left of the statement. Please be as honest as you can.

____ 1. I try to be with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 2. I let other people decide what to do.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 3. I join social groups.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 4. I try to have close relationships with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 5. I tend to join social organizations when I have an opportunity.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 6. I let other people strongly influence my actions.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 7. I try to be included in informal social activities.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 8. I try to have close, personal relationships with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 9. I try to include other people in my plans.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 10. I let other people control my actions.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 11. I try to have people around me.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 12. I try to get close and personal with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 13. When people are doing things together I tend to join them.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

____ 14. I am easily led by people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 15. I try to avoid being alone.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 16. I try to participate in group activities.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 17. I try to be friendly to people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 18. I let other people decide what to do.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

PLEASE BE AS HONEST AS YOU CAN

___ 19. My personal relations with people are cool and distant.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 20. I let other people take charge of things.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 21. I try to have close relationships with people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 22. I let other people strongly influence my actions.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 23. I try to get close and personal with people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 24. I let other people control my actions.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 25. I act cool and distant with people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 26. I am easily led by people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 27. I try to have close, personal relationships with people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 28. I like people to invite me to things.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 29. I like people to act close and personal with me.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 30. I try to influence strongly other people's actions.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 31. I like people to invite me to join in their activities.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 32. I like people to act close toward me.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 33. I try to take charge of things when I am with people.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 34. I like people to include me in their activities.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 35. I like people to act cool and distant toward me.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 36. I try to have other people do things the way I want them done.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 37. I like people to ask me to participate in their discussions.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 38. I like people to act friendly toward me.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 39. I like people to invite me to participate in their activities.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

___ 40. I like people to act distant toward me.
1) most people 2) many people 3) some people 4) a few people 5) one or two people 6) nobody

4

PLEASE REMEMBER TO BE AS HONEST AS YOU CAN

___ 41. I try to be the dominant person when I am with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 42. I like people to invite me to things.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 43. I like people to act close toward me.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 44. I try to have other people do things I want done.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 45. I like people to invite me to join their activities.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 46. I like people to act cool and distant toward me.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 47. I try to influence strongly other people's actions.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 48. I like people to include me in their activities.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 49. I like people to act close and personal with me.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 50. I try to take charge of things when I'm with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 51. I like people to invite me to participate in their activities.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 52. I like people to act distant toward me.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 53. I try to have other people do things the way I want them done.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

___ 54. I take charge of things when I'm with people.
1) usually 2) often 3) sometimes 4) occasionally 5) rarely 6) never

ASPECTS OF PERSONALITY

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For Grades 4 to 9 Inclusive

Name.....Date.....19...

Grade.....Age....yrs....mos. Teacher.....

School.....City.....State.....

SECTION	ASPECT OF PERSONALITY	SCORE	PERCENTILE RANK
I	Ascendance-Submission		
II	Extroversion-Introversion		
III	Emotionality		

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PRINTED IN U.S.A. PLFA: AP1-17

SECTION I

I

1. When some child tries to push into line ahead of me, I am not afraid to tell him to get back..... S D 1
2. I try to be the first one to get on a streetcar..... S D 2
3. I am among the first to yell at a game..... S D 3
4. I try to get a seat in the streetcar or train before someone else does..... S D 4
5. I get angry when the class leader is too "bossy."..... S D 5
6. I am usually doing the talking in any crowd..... S D 6
7. I find it hard to talk before other children..... S D 7
8. I talk back to a friend who is "bossy."..... S D 8
9. I like to show people around to meet other people..... S D 9
10. If there are pieces of salt in my ice cream, I tell the storekeeper about it..... S D 10
11. I tell the groceryman that it is my turn when the grocer tries to wait on someone else first..... S D 11
12. I try to get the storekeeper to sell me candy at a cheaper price..... S D 12
13. Even though I don't understand what the teacher says, I don't ask her to say it again..... S D 13
14. I do almost everything other people tell me to do..... S D 14
15. I am often against what people say..... S D 15
16. I stick to what I've said even if other children don't like it..... S D 16
17. I don't mind when other children get ahead of me in line..... S D 17
18. I have a lot of nerve..... S D 18
19. I always want to have my way with other people..... S D 19
20. I try to get my own way even if I have to fight for it..... S D 20

 (Go right on to the next page.)

21. I think that friends who don't agree with me are stupid..... S D 21

22. I raise my hand so that the teacher will call on me to go on an errand..... S D 22

23. I do not like to be the leader in games..... S D 23

24. I start the fun at a quiet party..... S D 24

25. I do not like to start a new game among my friends, but I let someone else do it..... S D 25

26. I like to be the first in line when I play a game..... S D 26

27. I get the boys and girls together for parties, clubs, and teams..... S D 27

28. I don't like to ask questions in class..... S D 28

29. I want to lead the class..... S D 29

30. I like to stick up for my rights..... S D 30

31. I like to talk with someone else about my work..... S D 31

32. I like to go from one group of children to another and talk..... S D 32

33. When I make up my mind not to do a thing, I just won't do it..... S D 33

34. I always want to be with my father and mother..... S D 34

35. I feel sure I can do things I want to do..... S D 35

(Go right on to the next page.)

I

Score.....

SECTION II

II

1. I do not like to have people ask me questions about myself. . . . . S D 1
2. I like baseball and football better than quiet games. . . . . S D 2
3. I would rather go to a party than stay at home. . . . . S D 3
4. I would rather play with other children than play alone. . . . . S D 4
5. I have many friends. . . . . S D 5
6. I do not make friends easily. . . . . S D 6
7. I like to go to school early because I have many friends waiting for me. . . . . S D 7
8. I like to make new friends. . . . . S D 8
9. I like friends more than books. . . . . S D 9
10. I find it easy to start speaking to a new pupil. . . . . S D 10
11. I keep quiet when I am with other people. . . . . S D 11
12. I like to spend my vacation at some quiet place. . . . . S D 12
13. I do not mind when people say bad things about me. . . . . S D 13
14. I like to spend money. . . . . S D 14
15. I can be scolded without feeling hurt. . . . . S D 15
16. I make up my mind quickly. . . . . S D 16
17. I like to be in assembly plays. . . . . S D 17
18. I like to have people look at me when I am working. . . . . S D 18
19. I like to read before the class. . . . . S D 19
20. I do not like to work alone. . . . . S D 20
21. I make up my mind without much thinking. . . . . S D 21
22. I like to go camping rather than read about it. . . . . S D 22
23. I would sooner say than write what I think. . . . . S D 23

(Go right on to the next page.)

24. I like to think a great deal.. ..... S D 24

25. I want to work alone because I don't want other people to be praised for my ideas..... S D 25

26. I feel at home at parties..... S D 26

27. I would rather play checkers than play ball..... S D 27

28. I like to belong to clubs..... S D 28

29. I like to play rough sports..... S D 29

30. I like to tell my friends all about things that happen to me..... S D 30

31. I worry about the little mistakes I make..... S D 31

32. I like to read poetry..... S D 32

33. I think of smart things to say afterward, when it is too late..... S D 33

34. I like to take charge of things for the teacher..... S D 34

35. I like to go around classes, collecting money for the Red Cross..... S D 35

(Go right on to the next page.)

II

Score.....

SECTION III

III

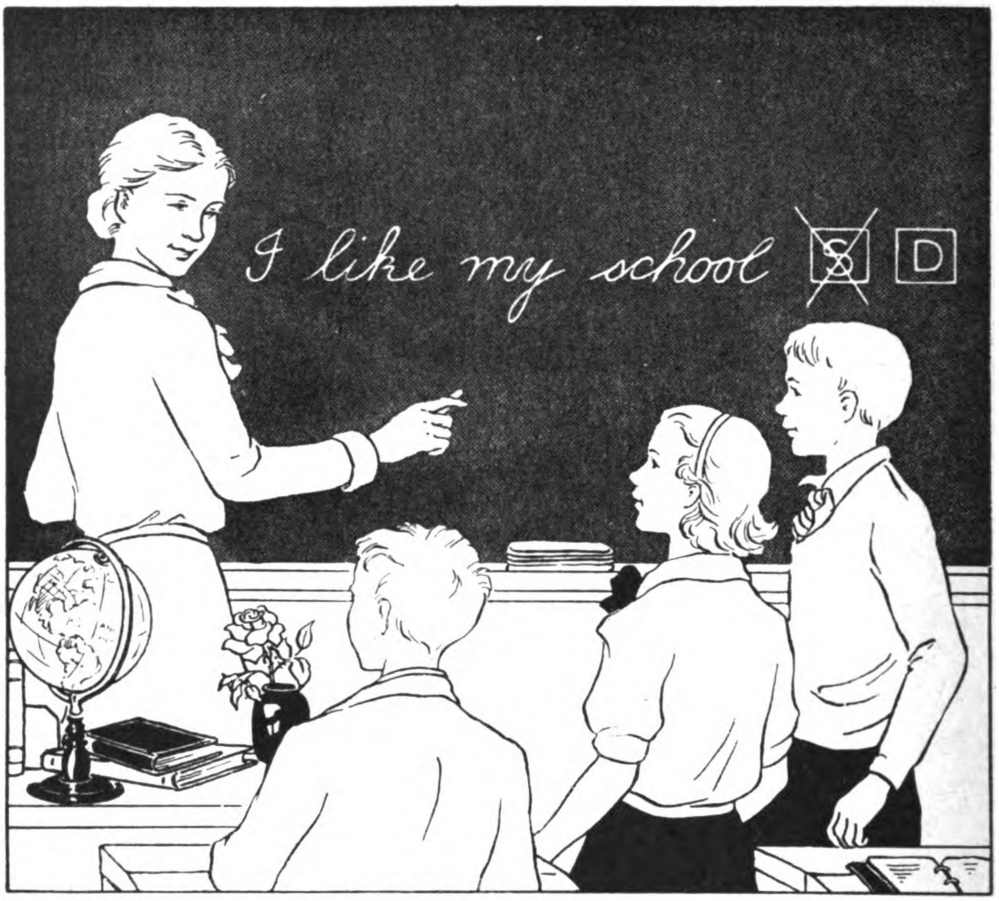
1. I like to go to the movies..... S D 1
2. I think most children like to make fun of me..... S D 2
3. I get angry about nothing..... S D 3
4. I get so angry I can't talk..... S D 4
5. I fall and trip over things..... S D 5
6. I like to listen to the radio..... S D 6
7. I find it hard to forget my troubles..... S D 7
8. I often talk to myself..... S D 8
9. I like animals as pets..... S D 9
10. I often have ideas run through my head, so that I cannot sleep..... S D 10
11. I never tear pages from my school or library books..... S D 11
12. I often giggle and laugh for no reason at all..... S D 12
13. I often cry without good reason..... S D 13
14. I make believe I am somebody else..... S D 14
15. I am always afraid that sad things will happen to me.... S D 15
16. I do not talk during fire drill..... S D 16
17. I think that I was happier when I was a baby..... S D 17
18. I always cross the street at the corners..... S D 18
19. I often think people follow me at night..... S D 19
20. I think that my friends are against me..... S D 20
21. I often find it hard to breathe..... S D 21
22. I feel tired most of the time..... S D 22
23. I often feel sick when I have to go to school..... S D 23
24. I worry about getting sick..... S D 24
25. I don't like to be absent..... S D 25

(Go right on to the next page.)

26. I am afraid to sit in a small room with the door shut....	S	D	26
27. I am very much afraid of water.....	S	D	27
28. I wish to do the right thing, but sometimes I can't get myself to do it.....	S	D	28
29. I cannot stand even a small noise.....	S	D	29
30. I am afraid of thunder.....	S	D	30
31. I feel that I haven't a friend.....	S	D	31
32. I like my school because it is clean.....	S	D	32
33. Everything gets on my nerves.....	S	D	33
34. I often feel sad for no reason at all.....	S	D	34
35. I say one thing and do another.....	S	D	35
36. I like to tease my friends until they cry.....	S	D	36
37. I like this Same–Different game.....	S	D	37
38. I believe almost anything that anybody tells me.....	S	D	38
39. I cry when I am in trouble, because then people pity me.	S	D	39
40. I can't forget a wrong that's been done me.....	S	D	40
41. I think that everybody keeps away from me.....	S	D	41
42. I think my teacher is always watching me.....	S	D	42
43. I think my parents pick on me too much.....	S	D	43
44. I feel I get blamed for things I did not do.....	S	D	44

III

Score.....



Here is a picture of some children playing a game called *Same-Different.* In playing this game the teacher writes a sentence on the blackboard, such as "I like my school." Then she asks all those children who feel the same way to raise their hands. Next she asks all those who feel different to raise their hands. Someone counts the hands and keeps score. The teacher writes a number of these sentences on the board, and for each one she asks those who feel the same to raise their hands and then she asks those who feel different to raise *their* hands.

We are going to play this game, too; only this time you will find all the sentences written in this booklet. Read each sentence carefully. Ask yourself whether you feel the same or different. If you feel the same, cross out the little square at the right which has the letter S in it, like this:

"I like my school." ~~S~~ D

If you feel different, cross out the square with the D in it, like this:

"I like my school." S ~~D~~

Read every statement, decide how you feel about it, and then cross out the square which tells how you feel.

There are no right or wrong answers, since many people feel different about these matters.

QUESTION FORM

I. ABOUT YOU

1. Your name is _____ 2. You are ___ years old.

3. You are __ a boy. __ a girl. 4. You are in the ___th grade.

5. Name of your school _____ 6. Today is _____ 19 __.

7. Where do you live? (Mark one of the following)

a. __ in the country on a farm.
b. __ in the country, but not on a farm.
c. __ in a town.

8. Name of town or closest town _____.

9. Your father's name is _____.

10. What does your father do for a living? He is a _____.

11. What language do you speak most at home? _____.

12. Do you attend a religious service on Sundays? __Yes __No

13. What is the name of the denomination or church you go to? _____.

14. What is the name of your pastor or church leader? _____.

15. What is the name of your bishop (if your church has one)? _____.

II. ABOUT YOUR FRIENDS

Of those you pal or play with <u>at school</u>, put the name of the person you like best on the first line, the person you like second best on the second line, and so on.

	First Name	Last Name	Grade	What church does he or she go to?
1.	_____	_____	____	_____
2.	_____	_____	____	_____
3.	_____	_____	____	_____
4.	_____	_____	____	_____
5.	_____	_____	____	_____
6.	_____	_____	____	_____
7.	_____	_____	____	_____

III. ABOUT YOUR HOME

1. Your parents' home is: a. __owned. b. __rented.

2. The number of rooms in your house is: ___.
(Do not include basements, bathrooms, porches, closets, halls)

3. The number of persons who live in your house is: ___.

4. Of the people who live in your house, how many are your:

a. __ Brothers d. __ Aunts g. __ Other relatives

b. __Sisters e. __ Grandfathers h. __ Not related

c. __ Uncles f. __ Grandmothers

5. The construction of your house is:
a. __ Brick
b. __ Unpainted wood frame
c. __ Painted wood frame
d. __ Other (specify) _ _ _ _ _ _ _ _ _ _ _ _ .

6. The lighting in your house is:
a. __ Oil lamps
b. __ Electric
c. __ Gas, mantle, or pressure lamps
d. __ Other or none

7. What kind of refrigeration do you have?
a. __ Ice
b. __ Mechanical (gas or electric)
c. __ Other or none

8. Do you have a deep freeze locker in your house? ___Yes ___No

9. Do you have running water in your house? ___Yes ___No

10. Do you have an indoor toilet? ___Yes ___No

11. Does your family take a daily newspaper? ___Yes ___No

12. Does your family have a power washing machine? ___Yes ___No

13. Does your family have a radio? ___Yes ___No

14. Does your family have a television set? ___Yes ___No

15. Does your family have a car? ___Yes ___No

16. Does your family have a truck? ___Yes ___No

17. Does your home have a telephone? ___Yes ___No

18. If you live on a farm, does your family have a telephone other than one in the house? ___Yes ___No

19. If you live on a farm, does your family have a tractor? ___Yes ___No

NOTE ON ADMINISTRATION OF TESTS

The three tests to be given are FIRO-B, Aspects of Personality, and Question Form. They should be given in the order listed in the previous sentence. Each should be given separately. That is, the students should finish the FIRO-B and hand it in before beginning on the Aspects of Personality.

On the following two pages are suggested directions for introducing the tests. Except for Aspects of Personality these introductions need not be followed word for word, but they should be followed as closely as possible. As noted in the introduction, the administrator may give dictionary definitions of any words not understood in the first two tests. If the students have any questions of a factual nature on the Question Form, the administrator may help if he is able to do so.

It is preferable not to give the students advance information as to when the test will be given or even that one will be given.

DIRECTIONS FOR ADMINISTERING TESTS

FIRO-B

Introduction:

We are conducting a survey of how students feel in various situations with other people. You can help us by telling us how you feel in the situations described in the statements which have been handed out to you.

This is not a test and answering the questions will in no way affect your grades. In fact no one in this school will know what answers you have put down.

In the first part just read each statement, and then select one of the six words below the statement which best applies to you. Place the number of this word in the blank space provided at the left of the statement. Notice that Statements 17 to 40 have different words to use.

Before beginning make sure you put your full name in the upper right hand corner of the first page. On the left side, put in the name of your school, beside the word, Group. Then write in today's Date; mark whether you are Male or Female; and finally, write down your Age (at your last birthday).

If there are any statements or words which you do not understand, ask your teacher or the person who is in charge to give the meanings.

Do not spend too much time on any one statement, but try to answer each one as truthfully as you can.

Some possible definitions:

social groups - gatherings of people who know each other, at least some of whom are probably good friends. Fellows and girls at a party would be a social group. Several fellows and girls talking together after church services is an example of an informal social group.

close relationships - being very good friends with another person or persons.

social organization - a certain type of social group which comes together for a special purpose. A baseball club is a social organization. A girls' sewing club would be a social organization.

dominant person - the most important person in the group. He or she is the one who decides what things the rest of the group will do.

ASPECTS OF PERSONALITY

To give the test, say: "I am going to give each of you one of these booklets (Examiner shows). It tells us how to play the Same-Different game. As soon as you receive your booklet, place it on your desk face up and unopened."

When each child has received his booklet, say: "Now take your pencil and write your first and last name clearly in the space for 'Name.'" The examiner proceeds in like manner until the required data on the front sheet are obtained. When all are ready, say: "Everybody will now turn his booklet over. Now read with me what it says about this picture." (Examiner reads aloud material on page 8 of the test booklet.)

"Are there any questions?" (The examiner may answer questions regarding the mechanics of taking the inventory, and later during the testing period may also answer questions regarding meaning of words or phrases.) The examiner then says: "Now open your booklet to page 2. The first sentence reads, 'When some child tries to push into line ahead of me, I am not afraid to tell him to get back.' If you feel the same way, cross out the little square with the D in it. Do the rest of the sentences in the same way. As soon as you have finished with page 2, go right on through the booklet to the last page. Be sure that you mark every sentence. Do not skip any of them. Ready. Go!

QUESTION FORM

In introducing this form say something like the following:

"This form contains a number of questions about you, about your friends, and about your home. Please answer each question fully. Most of the questions on the first page may be answered by writing in the correct words. Give as complete an answer as you can. For instance, in the question about church denomination, give the full name of your church--Wesleyan Methodist rather than only Methodist, or Evangelical United Brethren rather than only Brethran."

(If some of the answers are not known in entirety, ask them to answer as fully as possible. If their father works in a factory, but they do not know what his specific job is, it is sufficient to merely put "factory worker.")

"Nearly all of the questions on the second page may be answered by marking the space which is next to the correct answer. Questions 2, 3, and 4 on the second page must be answered by writing in the correct number."

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