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**A COMPARISON OF CHILDREN'S SOCIAL VALUES
IN STORY COMPLETIONS BY CULTURE-GROUPS**

By

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ABSTRACT

The Anderson Incomplete Stories have been administered to children in eight countries speaking seven languages. For this study data have been taken from children in twelve principal locations in the eight countries. Completions to the Football Story, the fifth story in Series A, were written by 5,068 seventh-grade children in their native languages and translated into English.

For this study 150 seventh-grade children, 75 boys and 75 girls, with two exceptions, were drawn in random order from the pool of story completions from each of the twelve locations listed below.

The locations were arranged into four culture-groups as follows: Anglo-american culture-group: Benton Harbor, Michigan; Knoxville, Tennessee; and Birmingham, England. Scandinavian culture-group: Helsinki, Finland; Drammen, Norway; and Stockholm, Sweden. Latin-american culture-group: Mexico City; San Juan, Puerto Rico; and Rio de Janeiro, Brazil. German culture-group: Karlsruhe, Hamburg, and Munich, Germany.

The two aims of the study were to determine if the social values of the children differed ~~between~~ the culture-groups and to determine if the social values of the children from locations within culture-groups differed from one another. These problems were stated as hypotheses:

Hypothesis I: There are differences between culture-groups.

Hypothesis II: Locations do not differ within a culture-group.

Five categories comprising 35 items were used for coding and recording the story completions to the Football Story. Certain items in the coding categories were arranged into clusters classified as acceptable, not acceptable, or not evaluated in terms of hypothesized and defined social values, based on general cultural expectations of children in the United States.

The frequencies of tallies in the item clusters were compared by a method of analysis using the components of the total chi-square. This method provided a means of testing Hypothesis I with the between-group chi-square components and Hypothesis II with the within-group chi-square components.

Hypothesis I that there were differences between the values of the children from the different culture-groups was accepted. Without exception the between-group chi-squares were significant beyond the .001 level. The rank order of culture-groups in acceptable social values was: 1, Anglo-american; 2, Scandinavian; 3, Latin-american; and 4, German.

Hypothesis II was that the culture-groups would be found to be homogeneous on the five categories examined. Instead, the culture-groups were found to be heterogeneous in the following number of categories: Anglo-american, five; Scandinavian, two; Latin-american, four; and German, four.

Hypothesis II that the children within the same culture-groups would make similar choices and hold similar social values when writing their story completions was not supported.

Each culture-group had one location deviant from the two other locations. Deviant locations high in acceptable social values were Drammen and Rio de Janeiro; deviant locations low in acceptable social values were Birmingham and Karlsruhe.

Approved Harold H. Anderson
Signature of Major Professor

Date 12 May 1961

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I. INTRODUCTION

Background

The Anderson Incomplete Stories, Series A and Series B (3,4) were developed in 1952 and 1953. The text of the 11 incomplete stories is presented in Appendix A. Each story presents a social conflict situation to which children are asked to write an ending. The incomplete stories contain situations with child-parent, child-teacher, and child-child relationships. They were designed as a projective device in the hope that they would be sensitive to social awareness, social inventiveness, and social values of adolescents.

The development of this tool stemmed from the knowledge that there are individual differences in the skills and techniques employed by children in conflict situations and that such differences are due, in part, to differences in cultural influences. Hypotheses underlying the use of the Anderson Incomplete Stories are that: children write from their own perceptions and experiences; if human relations differ in different locations children in different locations will have had different experiences; children from different locations will write different story completions to an incomplete social conflict situation; and that the choices the children make when writing the story completions will reflect their social values.

The first story completions were gathered from children in Karlsruhe, Germany, in 1952. In 1959 the story completions of children in Rio de Janeiro, Brazil, brought the number of story completions to over 10,000. Story completions have been written mainly by fourth and seventh-grade children. Table 1 gives a listing of the principal locations where the stories were administered to seventh-grade children. The children wrote in their native languages and their story completions have been since translated into English.

Table 1. Numbers of seventh-grade children by location who completed the Football Story with dates of research administration.

<u>Location</u>	<u>Date of administration</u>	<u>Number of children</u>
Karlsruhe, Germany	Sep. '52	821
Knoxville, Tennessee	Apr. '53	220
Mexico City, Mexico	May '53	1153
Hamburg, Germany	Jan. '54	487
Munich, Germany	Feb. '54	328
Birmingham, England	Mar. '54	435
Drammen, Norway	Mar. '54	223
Stockholm, Sweden	Mar. '54	158
Helsinki, Finland	Apr. '54	209
San Juan, Puerto Rico	Dec. '56	531
Benton Harbor, Michigan	Jan. '57	285
Rio de Janeiro, Brazil	Aug. '59	218
Total		5068

The Football Story

This study is based on the Football Story, the fifth story from Series A of the Anderson Incomplete Stories, which reads as follows:

George and Tom are playing with a football. They knew that they should not play football in the narrow space in front of the house. George gives the ball a strong kick and the ball hits a window and makes a big crack in it. Tom thought that someone had appeared behind the window. No one could have seen who kicked the ball against the window.

Finish this story with a few sentences. Tell how the two boys felt about it and what they did.

The following are examples of children's story completions, each identified by the location and number of the child:

Knx 004: George's mother went to the doorway and called him in. She said "You have deliberately disobeyed me so I shall have to keep you from playing in the football game tomorrow." George felt miserable but he knew he deserved what he got so he was quite. (sic)

Ehm 111: George felt frightened and wanted to run away but Tom says that he will share the blame if George would come with him to own up. In the end they did but no-one came to the door. They went away with a clear consciences. (sic)

Drw 222: The boys walked in and said that they were the ones who had done it. They took their savings and bought a new window.

Ham 675: The one however who came to the window asked who had done it. The boys said that both of them had done it. Then the man decided and the boys had to pay the bill for the new window. In that incident Manfred and Karl do not play football in that place again.

Kar 363: Manfred and Karl were afraid of their father, and therefore did not want to say it. In the evening Manfred and Karl went to the people whose window they kicked in.

The coding manual¹

A coding manual for content analysis of the story completions has been developed. At the beginning, several hundred story completions from different locations were read. Actions, feelings, and intentions which seemed to be mentioned frequently were noted. General headings or major classifications for coding different parts of the story completions were established. The general headings were called categories of behavior. A category is defined as an area of behavior or a topic of classification which provides a means of referring to a particular episode or development or to a situation of interpersonal relationship included in a story completion.

The system of classification is carried one step further by listing specific kinds of behavior, called items of behavior, that are included under the heading of a category.

The coding manual for the Football Story contains 16 defined categories subdivided into items, each defined and accompanied by instructions for its use and by examples of coding. An abstract of the coding manual is included in Table 2. Table 2 lists each of the categories and its respective items. The number assigned to each category refers to the number of the column on the IBM card to which that category has been assigned.

¹ The coding manual for the Football Story was developed in group conferences during the period from November 1959 to May 1960. Members of the group were Dr. Harold H. Andersen, Dr. Gladys L. Andersen and Special Graduate Research Assistants David J. Erickson and Barbara M. Erickson.

Table 2. An abstract of the Football Story coding manual.

- 21 First Character
 - 1 Boys
 - 2 Parent
 - 3 Owner
 - 4 Others-unclear
- 22 Owner-Parent Identity
 - 1 Owner and Parent separate
 - 2 Owner and Parent same
 - 3 Not clear
 - 4 No mention of either
- 31 Kicker's Intention Regarding the Owner
 - 1 Include
 - 2 Exclude then include
 - 3 Exclude
 - 4 Include then exclude
 - 5 No information
 - 6 Kicker not mentioned
- 32 Companion's Intention Regarding the Owner
 - 1 Include
 - 2 Exclude then include
 - 3 Exclude
 - 4 Include then exclude
 - 5 No information
 - 6 Companion not mentioned
- 33 Boys' Identity Revealed to the Owner
 - 1 Voluntarily
 - 2 Involuntarily
 - 3 After delay
 - 4 Not clear whether or how
 - 5 Not revealed
- 34 Boys' Intention Regarding the Parent
 - AFTER Identity or Restitution
 - 1 Include
 - 2 Exclude then include
 - 3 Exclude
 - 4 Include then exclude
 - BEFORE Identity or Restitution
 - 5 Include
 - 6 Exclude then include
 - 7 Exclude
 - 8 Include then exclude
 - 9 Not clear
 - 0 No information
- 35 Boys' Identity Revealed to Parent
 - 1 Voluntarily
 - 2 After delay
 - 3 Involuntarily
 - 4 Not clear whether or how
 - 5 Not revealed
- 36 Restitution by Boys
 - 1 Voluntary--completed
 - 2 Voluntary--plan, intent, or fantasy

- 3 Delayed--completed
- 4 Delayed--plan, intent, or fantasy
- 5 Involuntary
- 6 Not clear whether or how
- 7 Apology-confession without restitution
- 8 Boys made no restitution; others may
- 9 No mention of restitution by anyone
- 37 Boys' Clandestine Restitution
 - 1 Clandestine
 - 2 All other stories
- 38 Accord/discord Between the Boys
 - 1 Accord
 - 2 Discord then accord
 - 3 Discord
 - 4 Accord then discord
 - 5 No information or only one boy mentioned
- 41 Behavior of Owner or Fantasy of Owner's Behavior
 - 1 Acknowledging, supportive, resourceful
 - 2 Restrictive
 - 3 Waiver of Restitution
 - 4 Non-confronting
 - 5 Punitive: non-physical
 - 6 Negative statement of 41-5
 - 7 Punitive: physical
 - 8 Negative statement of 41-7
 - 9 Usurping
 - 0 No mention as above or at all
- 42 Sex of Owner
 - 1 Male
 - 2 Female
 - 3 Plural ownership or sex not clear
 - 4 Owner not mentioned
- 51 Behavior of Parent or Fantasy of Parent's Behavior
 - 1 Acknowledging, supportive, resourceful
 - 2 Restrictive
 - 3 Waiver of Restitution
 - 4 Non-confronting
 - 5 Punitive: non-physical
 - 6 Negative statement of 51-5
 - 7 Punitive: physical
 - 8 Negative statement of 51-7
 - 9 Usurping
 - 0 No mention as above or at all
- 52 Restitution by Parent
 - 1 Shared with boys
 - 2 Voluntary restitution; usurping
 - 3 Involuntary
 - 4 No Restitution by parent; others may
 - 5 Parent mentioned; no mention of restitution
 - 6 Parent not mentioned
- 53 Sex of Parent
 - 1 Male
 - 2 Female
 - 3 Plural; parents; unclear
 - 4 Parent not mentioned

The arrangement of categories and items in the coding manual was specifically done as an aid to the coders. The categories dealing with each of the different characters in the story completions, kicker, companion, owner, and parent, were arranged into groups. That is, the categories dealing with the actions or intentions of the boys were put first in the coding manual followed by the categories for the owner and then by those for the parent.

The arrangement of the items within the categories followed a rank ordering of the items of behavior according to a cultural value system agreed upon by the research group and discussed below. The most acceptable behavior has been listed first.

Training of coders

Once the coding categories and items had been assembled in the coding manual of instructions, the training program for the coders was begun. During this period two coders¹ read the manual and independently coded the same story completions. The training program had a dual purpose. It was primarily a period during which the coders learned to code the story completions independently and consistently to a pre-determined level of agreement of approximately 90 per cent. In addition, however, this period was used to re-phrase the coding manual for more precision or completeness of its instructions, definitions, and illustrations.

¹The two coders were David J. Erickson and Barbara M. Erickson.

After each exercise of coding, the percentage of agreement between the two coders was computed by the following formula which has been used in previous analyses of the Andersen Incomplete Stories data (16): Per cent agreement =

$$\frac{\text{Twice the number of items in agreement}}{\text{Total number of items recorded by two coders}} \times 100$$

Frequent revisions and changes in the coding manual followed discussions of disagreements in the coding. With clarification of the definitions in the manual, subsequent percentages of agreement increased.

Once the percentage of agreement was consistently greater than 90%, the reliability of the coding was considered to be sufficient for research purposes. The training period was ended and the coding manual was declared closed to further revision. The process of coding the entire sampling of story completions was begun.

Table 3 shows the percentages of agreement that were obtained during the training period from February 1960 to June 1960. The coding of the story completions for research purposes was begun in June 1960 and completed in September 1960.

Table 3. Percentages of agreement of two independent coders in coding with 91 items in 16 categories during coding training period.

Date 1960	Location	Number of Children	No of Items Coded	No of Items Coded	Number of Agreements	Per cent Agreement
Feb 24	Mexico City	44	499	488	399	81
	Braunschweig	28	312	321	255	82
	Karlsruhe	27	303	301	240	79
	Drammen	40	453	446	359	80
Mar 1	Karlsruhe	27	307	302	261	86
	Drammen	40	452	445	391	87
Apr 26	Hamburg	29	408	409	371	91
	Knoxville	20	280	280	227	82
May 17	Mexico City	33	496	496	454	91
	Braunschweig	31	474	472	430	91
May 18	Helsinki	28	421	421	377	89
	Karlsruhe	18	272	274	240	88
May 24	Drammen	39	602	601	490	81
May 30	Birmingham	34	511	512	468	91
** Jun 1,2	All locations	135	2065	2053	1944	94
Jun 6	Rio de Janeiro	43	428	426	418	98
Jun 20	Stockholm	25	363	362	328	91
Jun 21	Karlsruhe	28	432	431	395	92

*Coder 1 was David J. Erickson; Coder 2 was Barbara M. Erickson.

**Examples of story completions selected for the coding manual.

II. SOCIAL VALUES

Jeshay (14), in 1949, pointed out the necessity for evaluating children's development in social learning as a means of evaluating the school curriculum, saying that "one of the chief reasons for having a modern curriculum is its contribution to the social development of children and to the development of skills necessary in a democracy." He indicated that the notion of social learning was not abstract and intangible but was observable and therefore measurable. What, then, are these "skills?" Perhaps one should ask the question that Jarber (13) raised: What should a properly brought-up child be?

Underlying the answer to this question is the basic hypothesis of this study (and the larger program of which the study is a part), namely that each culture has its own set of rules for bringing up children. Some of the rules are shared with other cultures, some are unique. One basic "rule" emerging throughout the Western world is a belief in the importance and dignity of the individual human being (21).

It should be remembered that the Anderson Incomplete Stories are considered to be a projective instrument (4). Frank (15), the originator of the term projective technique, suggested as a definition of the term that a projective method involves the presentation of a stimulus situation selected or constructed because its meaning will not be that arbitrarily chosen by the experimenter. Rather, the subject

imposes his private, idiosyncratic meaning and organization to the stimulus. The assumption is made that the individual's organization of the relatively unstructured stimulus situation is indicative of basic trends in his perception of the world and his response to it (31).

From the content of what the child writes, inferences may be drawn about his needs, attitudes, ~~values~~, ideologies, and conception of himself.

It was mentioned above that during the development of the coding manual the items of some of the categories were arranged in rank order and evaluated. When the members of the research group ranked the items they did so in terms of social values, values which could be hypothesized as an "ideal" for the United States. Coding items which were interpreted as indicative of the importance and dignity of the individual human being were ranked highest and evaluated as ~~acceptable~~. Items which did not meet this criterion were evaluated as ~~not acceptable~~. Some items were ~~not evaluated~~.

The coding manual was developed as a means of determining certain social values of each child who wrote a completion to the Football Story. The social values of the children are interpreted from the coding items in which their story completions were recorded in the several coding categories. From these social values of the children, inferences may be made about the social values of their parents, about the social values of their culture.

For an illustration of the ranking and evaluation of the coding items, consider Category 31, Kicker's intention regarding the owner. The first item (31-1) of this category, the kicker's immediate, spontaneous intention to include or to communicate the facts of the accident to the owner, has been regarded as demonstrative of an "ideal" or most acceptable behavior for a child to choose to write in his story completion. The remaining items in this category record less acceptable behavior. That is, it is less ~~acceptable~~ acceptable for the child to choose to write that the kicker intended first to run away and later to return to the owner (31-2) because the choice of the child indicates an initial hesitation to face the owner.

For the child to choose to write that the kicker's intention was to exclude the owner or to keep the facts of the accident from the owner (31-3) is for the child to choose an alternative that is ~~not acceptable~~ not acceptable. Nor is it acceptable for the child to choose to write that the kicker's intention changed from an intent to include to an intent to exclude the owner (31-4) because the choice of the child indicates an unreadiness to face the owner.

No evaluation was placed on the last two items of Category 31 which record that there was no information about the kicker's intention regarding the owner (31-5) or that the kicker was not mentioned in the story completion (31-6). However, one could say that the child who chose to write a story completion which could be recorded in either of these

items was not exhibiting acceptable behavior because the child did not or could not face the conflict situation.

The five categories

Five of the 16 categories of the coding manual for the Football Story record behavior, feelings, or intentions of the boys in relation to the owner and to each other. The five categories have been selected for analysis in this study for three reasons: (1) they include statements pertaining to the intentions and behavior of the boys, (2) more meaningful psychological content and finer cultural differentiations were anticipated, and (3) the five categories were expected to be more sensitive to the social values of the children as defined for this analysis.

The five categories are:

Category 31, Kicker's intention regarding the owner. Category 31 records the intention of the kicker regarding the owner; whether it was to include the owner in the situation and to inform him of the facts of the accident, or whether it was to exclude the owner from the situation and to keep from him the facts of the accident.

Category 32, Companion's intention regarding the owner. The same definitions, conditions, examples, and values are employed in both Category 31 and Category 32.

Category 33, Boys' identity revealed to the owner. Category 33 records the manner in which the boys' identity was revealed to the owner. In this category there is no differentiation of kicker from companion.

Category 36, Restitution by the boys. Category 36 records the manner in which the boys made restitution to the owner for the damaged window. In this category there is no differentiation of kicker from companion.

Category 38, Agreed/dissord between the boys. Category 38 records the manner in which the boys related to each other in the story completion.

Item clusters

The items of each of the five categories were combined into three "clusters." The clustering was done because with samples as small as 150 the frequency of tallies on several items was too low to be treated statistically. Related items were therefore combined. In the first four of the five categories the clusters exemplified assentable social values, not assentable social values, and not evaluated according to the values discussed above. Comparisons could thus be made across categories.

The item clusters in Category 38, Assord/dissord between the boys, have not been evaluated. Some children chose to have the boys in accord run away in their story completions which would be not assentable, while other children chose to have the boys act in accord and together reveal their identity to the owner which would be assentable. Similarly, if one boy ran away while the other told the owner, the intention of the boy who told the owner was, in the coding, given priority over acting in discord.

Less than 7% of the story completions in each of the 12 locations were "not clear" and were recorded in Item 4 of Category 33, Boys' identity revealed in the story. Item 33-4 which had not been evaluated was thus combined with Item 33-5, "boys' identity was not revealed," which had been

evaluated as not acceptable. The resulting item cluster retained the evaluation of not acceptable.

Similarly, less than 4% of the story completions in each of the 12 locations were recorded in Item 6, "not clear" of Category 36, Restitution by the boys. Item 6 was not evaluated. Items 7, 8, and 9 had been evaluated as not acceptable because restitution was not made. When Items 6, 7, 8, and 9 were clustered the evaluation of not acceptable was retained.

Some of the details of the data were lost because of the combinations of coding items that were necessary. However, even with less detailed data, it was thought that the cultural differences would be sufficiently large to be revealed.

One piece of information that was lost concerned the immediacy of the action of the boys toward the owner. Each of the five categories used in the study contains items for recording the immediacy of the actions or intentions of the boys and this information was not differentiated in the clusters of the items.

The categories and clusters of items were arranged as follows:

Category 31, Kicker's intention regarding the owner

Acceptable behavior--include

- 1 Kicker's intention was to include the owner
- 2 Kicker's initial intention to exclude then to include the owner

Not acceptable behavior--exclude

- 3 Kicker's intention was to exclude the owner
- 4 Kicker's initial intention to include then to exclude the owner.

Not evaluated--no information

- 5 No information about the kicker's intention regarding the owner**
- 6 The kicker was not mentioned**

Category 32, Companion's intention regarding the owner

The same items, clusters of items, and values in Category 31 were used in Category 32.

Category 33, Boys' identity revealed to the owner

Acceptable behavior--voluntarily or after delay

- 1 Boys revealed identity voluntarily**
- 2 Boys after delay (voluntarily) revealed identity**

Not acceptable behavior--involuntary

- 3 Boys identity was discovered or revealed involuntarily to the owner**

Not acceptable behavior--not revealed, plus not clear

- 4 Not clear whether or how boys' identity was revealed**
- 5 Boys' identity was not revealed to owner**

Category 36, Restitution by the boys

Acceptable behavior--voluntary or delayed

- 1 Boys' completed voluntary restitution**
- 2 Boys' voluntary plan, intention, fantasy concerning restitution**
- 3 Boys' completed delayed (voluntary) restitution**
- 4 Boys' delayed (voluntary) plan, intention, fantasy concerning restitution.**

Not acceptable behavior--involuntary

- 5 Boys' involuntary restitution**

Not acceptable behavior-- no restitution, plus not clear

- 6 Not clear whether or how boys made restitution**
- 7 Boys' apology-confession without restitution**
- 8 Boys made no restitution**
- 9 No mention of restitution by anyone**

Category 38, Accord/discord between the boys

Not evaluated--accord

1 Boys' accord

2 Boys' initial discord followed by accord

Not evaluated--discord

3 Boys' discord

4 Boys' initial accord followed by discord

Not evaluated--no information

5 No information as to the boys' accord or discord

III. AIMS OF THE STUDY

With the quantification of the data in terms of social values, one avenue of exploration open to investigation was an analysis of the anthropological, sociological, and psychological implications of the frequencies (or percentages) of story completions recorded in each of several evaluated item clusters. However, the investigator has chosen to report the findings of differences between the various locations studied, leaving conclusions to the reader.

In previous analyses of the children's completions to the Andersen Incomplete Stories attention has been focused on comparing the locations, one with each of the others. In these analyses there were suggestions of cultural trends. That is, certain locations seemed to cluster together frequently. What has not been undertaken is a comparison of the several locations which together represent "culture-groups," one group with each of the others. The first aim of this study is a comparison of social values between culture-groups of locations.

Cattell (8) has suggested as criteria for determining the similarity of locations which represent culture-groups "common root language, common historical diffusion from a center, common historical trauma, similar geography, similarity of religion, and similarity of race." With these criteria, the 12 locations included in the study were arranged into four culture-groups of three locations each as

shown below in Table 4.

Table 4. Twelve locations arranged into four culture-groups of three locations each.

Culture-group	Location*
Anglo-american	<ol style="list-style-type: none"> 1. Benton Harbor, Michigan 2. Knoxville, Tennessee 3. Birmingham, England
Scandinavian	<ol style="list-style-type: none"> 1. Helsinki, Finland 2. Drammen, Norway 3. Stockholm, Sweden
Latin-american	<ol style="list-style-type: none"> 1. Mexico City, Mexico 2. San Juan, Puerto Rico 3. Rio de Janeiro, Brazil
German	<ol style="list-style-type: none"> 1. Karlsruhe, Germany 2. Hamburg, Germany 3. Munich, Germany

* A more complete description of each location is found in Appendix E.

The three locations of Benton Harbor, Knoxville, and Birmingham were arranged into the Anglo-american culture-group. Historically the United States is the offspring of England. Thus, the language, cultural traditions, and legal traditions are shared by these two countries.

Helsinki, Drammen, and Stockholm were placed together in the Scandinavian culture-group. Often the name Scandinavian is used to designate the three kingdoms of Norway, Sweden, and Denmark, three countries which share closely related languages and a common mode of life (11). Denmark was excluded

from the culture-group because it is not represented in the sample of locations. Helsinki was added to the Scandinavian culture-group because Finland culturally resembles in many respects Sweden with which Finland was united politically for more than six centuries (11).

Mexico City, San Juan, and Rio de Janeiro, even though widely separated geographically, were arranged into the Latin-american culture-group. According to the Encyclopedia Americana:

Latin America is a general term applied to the 20 independent republics of the New World with a Latin background....Geographers, especially, include in the general expression Latin America the possessions of the European States in the hemisphere.... since all of the areas were once claimed by Spain. Puerto Rico, a Spanish colony for four centuries, but now a part of the United States, may also be included under this term....Although each country has its own separate and distinct national characteristics, taken together they have a common European origin, a common colonial background, a common history of related movements for independence from their mother countries....a language with a common root, a common psychology and way of life, a pre-dominant common religion....(11)

The criteria were perhaps most easily met for forming the German culture-group. All three locations, Karlsruhe, Hamburg, and Munich, are from the same country with a common historical trauma, common language, and similar geography.

The second aim of the study is a comparison of children's social values within each of the culture-groups. If the criteria were met and the locations can in fact be arranged into culture-groups, one would predict that the

differences in the children's story completions between culture-groups would exceed the differences within culture-groups. Such a prediction was restated as two hypotheses:

Hypothesis I: There are differences between culture-groups.

Hypothesis II: Locations do not differ within a culture-group.

IV. PROCEDURE

The sample

A random sample was selected for this study to reduce the number of Football Story completions to some number under 5,068. It was desirable to have the same number of story completions from each location for ease and efficiency in calculation and so that the chi-squares obtained in the analysis would be comparable throughout. The largest number of story completions which could be drawn from all 12 locations was 150. Thus, with two exceptions, equal numbers of children, 75 boys and 75 girls, were drawn in random order from the pool of Football Story completions by seventh-grade children in each of the 12 locations shown in Table 1.

For Stockholm and Rio de Janeiro it was impossible to equate the sample for sex of the children. In Stockholm there were only 72 seventh-grade boys who completed the Football Story; thus story completions of five girls were randomly discarded from the total sampling leaving the remaining story completions of 78 girls to make a total of 150 children for Stockholm. The total number of Rio de Janeiro girls who completed the Football Story was 72; therefore, the number of boys randomly selected was 78 to provide a total of 150 children for the sample.

The story completions included for analysis were drawn in a random order in the following manner. First, a list

of the identification numbers of all seventh-grade children was made for those who had completed the Football Story, separate lists being maintained for boys and girls. A table of random numbers was then used to select the story completions to be included in the study.

Method of analysis

With the 12 locations arranged into four culture-groups, it was possible to employ a method of analysis using the components of the total chi-square. Because of the additive nature of chi-square, the total chi-square for each category was broken down into its component parts so that the contribution of each culture-group to the total chi-square was accounted for. Using this procedure, then, there were two classes of components.

First, there was one between-group chi-square component for each category. Information regarding the differences in story completions between culture-groups was drawn from this component. Hypothesis I was tested at this level of the analysis.

In addition, there were the within-group chi-square components from which information regarding the homogeneity of locations within the culture-groups was drawn. These components were used to test Hypothesis II. There were four culture-groups and thus there were four within-group chi-square components for each category.

V. FINDINGS: COMPARISON OF CATEGORIES BY CULTURE-GROUPS

A consistent finding for each of the five categories examined was that the total chi-square was significant beyond the .001 level. In other words, considered in toto there were significant differences between the 12 locations. Since the total chi-square is a composite of between-group and within-group chi-square components, that which remained to be established was the level at which these differences were operative.

At the between-group level, the chi-squares were consistently significant beyond the .001 level. Hypothesis I was therefore accepted as being tenable; there were significant differences between the culture-groups of locations.

At the within-group level of analysis the findings were not all consistent. In the discussion below, each of the five categories is considered in turn with regard to the within-group chi-square components. Also, the rank ordering of culture-groups by per cent in terms of assentable and not assentable behavior is reported.

Category 31. Kicker's intention regarding the owner

The choices that the children made when they wrote about the intentions of the kicker in their story completions were recorded in Category 31. A comparison of the children's story completions is shown in Table 5. Note that

Table 5. Category 31, Kicker's intention regarding the answer. Percentages of children by location in the three item clusters.

Culture-group	Location	Include Items 1 & 2 (Acceptable) %	Exclude Items 3 & 4 (Not acceptable) %	No information Items 5 & 6 (Not evaluated) %	df	Chi-square
TOTAL					22	221.86***
BETWEEN CULTURE-GROUPS					6	151.77***
Angle-american		64.4	26.9	8.7		
Scandinavian		56.2	36.9	6.9		
Latin-american		36.2	45.6	18.2		
German		33.3	57.3	9.3		
WITHIN CULTURE-GROUPS						
Angle-american					4	19.87***
Knoxville		74.7	16.0	9.3		
Benton Harbor		65.3	26.0	8.7		
Birmingham		53.3	38.7	8.0		
Scandinavian					4	7.89
Drammen		61.3	30.0	8.7		
Stockholm		52.0	43.3	4.7		
Helsinki		55.3	40.0	4.7		
Latin-american					4	29.87***
Mexico City		24.7	60.7	14.7		
San Juan		34.7	46.0	19.3		
Rio de Janeiro		49.3	30.0	20.7		
German					4	12.46**
Karlsruhe		23.3	66.0	10.7		
Hamburg		42.0	48.7	9.3		
Munich		34.7	57.3	8.0		

* * Significant at .01 level

*** Significant at .001 level

the total chi-square and the between-groups chi-square are each significant at the .001 level.

Table 5 shows that the children of the Anglo-american culture-group, with a mean per cent of 64.4, wrote more story completions containing acceptable behavior than did the children from the other culture-groups. The German children, with a mean per cent of 33.3 wrote the least number of story completions with acceptable behavior. Conversely, the German children, with a mean per cent of 57.3, wrote the most story completions in which the kicker's behavior was not acceptable.

It should be noted, however, that in no location did all of the children write story completions in which the kicker's behavior was acceptable or not acceptable. No location was entirely "good" or entirely "bad" as evidenced by the Anglo-american children who, although they had the highest percentage of story completions recorded as acceptable, also had a mean per cent of 26.9 of story completions recorded as not acceptable in Category 31.

Items 5 and 6 include vague stories or story completions which evade the issue of the kicker's facing the owner. The Latin-american mean per cent of 18.2 was twice that of the German culture-group mean per cent of 9.3 which was next in rank order.

It can be noticed that all culture-groups except the Scandinavian were heterogeneous; the within-group chi-squares were significant at or beyond the .01 level. The children of

Table 6. Category 32, Germanism's intention regarding the SNAR. Percentages of children by location in the three item clusters.

Culture- Group	Location	Include Items 1 & 2 (Acceptable)	Exclude Items 3 & 4 (Not acceptable)	No information Items 5 & 6 (Not evaluated)	df	Chi- square
TOTAL					22	203.57***
BETWEEN CULTURE-GROUPS					6	139.06***
Anglo-american		59.3	27.6	13.1		
Scandinavian		49.3	39.8	10.9		
Latin-american		30.7	46.4	22.9		
German		32.9	56.9	10.2		
WITHIN CULTURE-GROUPS						
Anglo-american					4	24.58***
Knoxville		68.0	15.3	16.7		
Benton Harbor		60.7	26.7	12.7		
Birmingham		49.3	40.7	10.0		
Scandinavian					4	2.87
Drammen		52.7	36.7	10.7		
Stockholm		48.0	43.3	8.7		
Helsinki		47.3	39.3	13.3		
Latin-american					4	23.27***
Mexico City		20.7	60.0	19.3		
San Juan		30.0	46.0	24.0		
Rio de Janeiro		41.3	33.3	25.3		
German					4	12.79*
Karlsruhe		21.3	66.0	12.7		
Hamburg		38.7	47.3	14.0		
Munich		32.0	57.3	10.7		

* Significant at .05 level

* ** Significant at .001 level

Drammen, Stockholm, and Helsinki were not significantly different in values regarding the kicker's intention regarding the owner.

Category 32. Companion's intention regarding the owner

As mentioned earlier, Categories 31 and 32 contain exactly the same items, definitions, conditions, and values, except that Category 31 pertains to the kicker while Category 32 pertains to the companion. It should be noted that there were differences between the distributions of tallies for the two categories. In Category 32 there was a greater number of story completions recorded in the not evaluated item cluster for each location, with a consequently smaller number of tallies recorded in the acceptable behavior item cluster than in Category 31. In other words, more of the children wrote nothing about the intention of the companion in their story completions than wrote nothing about the intention of the kicker.

One of the findings shown in Table 6 is that the children from the Anglo-american culture-group most frequently made choices that were acceptable when writing their story completions. The Scandinavian children ranked second with German children ranking third and Latin-american children ranking fourth.

A conspicuous divergence was again shown by the Latin-american children in writing vague stories recorded in Items 5 and 6. Not only was the culture-group mean of 22.9 per

Table 7. Category 33, Boys' identity revealed to mother.
Percentages of children by location in the three
item clusters.

Culture- group	Location	Voluntary Items 1 & 2 (Acceptable) %	Involuntary Item 3 (Not acceptable) %	Not revealed Items 4 & 5 (Not evaluated) %	df	Chi- square
TOTAL					22	208.60 ^{***}
BETWEEN CULTURE-GROUPS					6	145.33 ^{***}
Anglo-american		64.2	16.4	19.3		
Scandinavian		57.3	14.7	28.0		
Latin-american		38.0	15.8	46.2		
German		32.0	23.8	44.2		
WITHIN CULTURE-GROUPS						
Anglo-american					4	18.42 ^{**}
Knoxville		75.3	10.7	14.0		
Benton Harbor		62.7	14.0	23.3		
Birmingham		54.7	24.7	20.7		
Scandinavian					4	12.42 [*]
Drammen		63.3	18.7	18.0		
Stockholm		52.7	14.0	33.3		
Helsinki		56.0	11.3	32.7		
Latin-american					4	17.27 ^{**}
Mexico City		28.7	17.3	54.0		
San Juan		34.7	18.7	46.7		
Rio de Janeiro		50.7	11.3	38.0		
German					4	14.62 ^{**}
Karlsruhe		22.0	26.0	52.0		
Hamburg		42.0	22.7	35.3		
Munich		32.0	22.7	45.3		

^{*} Significant at .05 level

^{**} Significant at .01 level

^{***} Significant at .001 level

cent the largest of all the culture-groups, but the individual per cent for each of the Latin-american locations were larger than for any of the nine other locations.

Table 6 shows also that for Category 32, the Scandinavian children wrote homogeneous story completions; whereas the story completions of the children within each of the three other culture-groups were not homogeneous.

Category 33. Boys' identity revealed in the answer

The choices that the children made when they wrote about the boys revealing their identity to the owner are compared for Category 33 in Table 7. The total chi-square as well as each of the chi-square components was significant. The choices made by the children within each of the culture-groups were not similar. The social values of the culture-groups were not homogeneous.

As was seen in Tables 5 and 6, and shown again in Table 7, the Anglo-american children most frequently made choices that were assentable. The mean per cent of stories from the German locations was lowest for assentable values.

Item 3 includes story completions in which the identity of the boys was revealed involuntarily. That is, story completions in which the boys were caught. The German children wrote the highest percentage of stories recorded in this not assentable item, their mean per cent being considerably

Table 8. Category 36, Restitution by the boys. Percentages of children by location in the three item clusters.

Culture= SEXED	Location	Voluntary Items 1,2,3,4 (Acceptable) %	Involuntary Item 5 (Not acceptable) %	No restitution Items 6,7,8,9 (Not acceptable) %	df	Chi- square
TOTAL					22	166.01***
BETWEEN CULTURE-GROUPS					6	101.35***
Anglo-american		43.6	13.3	43.1		
Scandinavian		25.6	13.1	61.3		
Latin-american		22.9	6.9	70.2		
German		19.6	14.9	65.6		
WITHIN CULTURE-GROUPS						
Anglo-american					4	32.48***
Knorrville		52.7	8.7	38.7		
Benton Harbor		51.3	8.7	40.0		
Birmingham		26.7	22.7	50.7		
Scandinavian					4	5.37
Drammen		28.7	16.0	55.3		
Stockholm		22.0	10.0	68.0		
Helsinki		26.0	13.3	60.7		
Latin-american					4	16.64**
Mexico City		16.7	10.0	73.3		
San Juan		18.7	6.7	74.7		
Rio de Janeiro		33.3	4.0	62.7		
German					4	10.17*
Karlsruhe		13.3	12.7	74.0		
Hamburg		25.3	13.3	61.3		
Munich		20.0	18.7	61.3		

* Significant at .05 level

** Significant at .01 level

*** Significant at .001 level

above the mean per cent of the three other culture-groups which were quite similar to each other.

Items 4 and 5 include story completions in which the boys' identity was definitely not revealed and in which it was not clear whether or how the boys' identity was revealed. Although Items 4 and 5 were considered not evaluated, from the standpoint of the owner whose window had been broken, these stories would be not acceptable. On the combined Items 4 and 5, the German mean per cent of 44.2 almost equaled the Latin-american mean per cent of 46.2, both groups being conspicuously higher than the Scandinavian culture-group with 28.0 per cent and the Anglo-american culture-group with 19.3 per cent.

Category 36. Restitution by the boys

In Category 36 are recorded the choices of the children when they wrote what the boys did regarding restitution of the damaged window. The percentages for Category 36 are shown in Table 8. The differences between the culture-groups were significant at the .001 level. Anglo-american children had the highest number of acceptable choices; the German children had the lowest.

The Latin-american children had the fewest number of stories in which restitution was involuntary, there being little difference between the other culture-groups on Item 5, "involuntary restitution."

Table 9. Category 38, Agree/disagree between the boys.
Percentages of children by location in the three
item clusters.

Culture- Group	Location	Agree Items 1 & 2 (Not evaluated) %	Disagree Items 3 & 4 (Not evaluated) %	No information Item 5 (Not evaluated) %	df	Chi- square
TOTAL					22	75.09***
BETWEEN CULTURE-GROUPS					6	44.75***
Anglo-american		80.4	8.2	11.3		
Scandinavian		76.7	13.1	10.2		
Latin-american		71.8	7.3	20.9		
German		82.9	7.8	9.3		
WITHIN CULTURE-GROUPS						
Anglo-american					4	11.53*
Knoxville		85.3	4.7	10.0		
Benton Harbor		80.0	6.0	14.0		
Birmingham		76.0	14.0	10.0		
Scandinavian					4	13.95**
Drammen		72.7	20.0	7.3		
Stockholm		82.7	8.7	8.7		
Helsinki		74.7	10.7	14.7		
Latin-american					4	.98
Mexico City		70.0	8.0	22.0		
San Juan		74.7	6.7	18.7		
Rio de Janeiro		70.7	7.3	22.0		
German					4	3.88
Karlsruhe		84.0	9.3	6.7		
Hamburg		80.7	6.7	12.7		
Munich		84.0	7.3	8.7		

* Significant at .05 level

** Significant at .01 level

*** Significant at .001 level

Anglo-american children wrote considerably fewer story completions in which there was no restitution or no mention of it, Items 6, 7, 8, and 9, while the Latin-american children were again highest in percentage of stories which did not specify what was done regarding restitution of the window.

The Scandinavian children wrote story completions that were homogeneous in this category; whereas the story completions of the children within the three other culture-groups were not homogeneous as shown by the significant within-group chi-squares in Table 8.

Category 13, Accord/discord between the boys

The item clusters in Category 13, as explained above, were not evaluated. Nevertheless, the fantasy choices of the children when writing about the relation between the two boys in a conflict situation were compared as seen in Table 9.

The German children made more choices in which the boys acted in accord than did the children from the other culture-groups. The reader should note, however, that in the four other categories the German children rather consistently made fewer acceptable choices and more choices that were not acceptable. The German children wrote more stories in which the boys ran away together.

In Category 13, the Scandinavian children wrote the greatest number of story completions in which the boys acted in discord, their percentage being considerably above the

percentages for the three other culture-groups.

Further evidence of the vagueness of the Latin-american story completions was shown by the mean per cent of 20.9 in Item 5, "no information," which was almost twice the respective per cents of the three other culture-groups.

Also seen in Table 9 is that both the Latin-american culture-group and the German culture-group were found in Category 38 to contain similar story completions; whereas the two other culture-groups were not homogeneous as indicated by significant within-group chi-squares.

VI. FINDINGS: COMPARISON OF CULTURE-GROUPS BY CATEGORIES

Findings regarding each of the five categories were reported in turn in the preceding section. In the discussion below, the foregoing findings are summarized in terms of the four culture-groups. The culture-groups were examined for homogeneity. For those categories in which a culture-group was not homogeneous, one location was found to stand alone on one side of the culture-group mean per cent on the assessable and not assessable item clusters. The location whose per cent stood alone was called deviant. The deviant location did not, however, necessarily maintain its deviant position consistently for the not evaluated item clusters. A chi-square test was used to compare the per cent of the deviant location with the mean per cent of the two other locations.

Hypothesis I

Hypothesis I, that there would be differences between the values of the children in a comparison of culture-groups, was accepted. Without exception the between-group chi-squares were significant beyond the .001 level.

When the between-group chi-square results were being interpreted with regard to Hypothesis I the question arose

whether or not the differences within the culture-groups were as large as the differences between culture-groups. An index for comparing the differences contained at each level of the analysis could be derived from the chi-squares already obtained. Since the expected value of a chi-square is its degrees of freedom, the ratio of each chi-square component to its degrees of freedom gives an index of the size of the chi-square obtained. By this procedure it was found that the chi-squares at the between-group level were consistently at least twice the size of the chi-squares obtained at both the within-group level and the total level. It was then evident that the within-group differences were consistently smaller than the between-group differences. For this reason also, Hypothesis I was accepted as being tenable.

Anglo-american culture-group

In the categories with evaluated item clusters, the Anglo-american culture-group, without exception, had the most story completions with acceptable behavior and the least number with behavior that was not acceptable. It should be noted, however, that the Anglo-american culture-group was never completely free of not acceptable social values.

The Anglo-american culture-group was not a homogeneous group on these same categories. Birmingham, England, was the deviant location in each of the five categories. Moreover, with respect to social values, the Birmingham children

Table 10. Angle-american culture-group locations. Comparison of the single deviant location with the mean of the two other locations on three item clusters of five categories.

Category Location	Item cluster %	Item cluster %	Item cluster %	Chi- square
31. Kicker's intent.	(142:A) ^a	(344:NA)	(546:NE)	
Knorrville and Benton Harbor	70.0	21.3	9.0	
Birmingham	53.3	38.7	8.0	11.04 ^{**}
32. Communion's intent.	(142:A)	(344:NA)	(546:NE)	
Knorrville and Benton Harbor	58.0	21.3	14.7	
Birmingham	49.3	40.7	10.0	11.15 ^{**}
33. Raza's identity.	(142:A)	(3:NA)	(445:NE)	
Knorrville and Benton Harbor	68.7	12.7	18.7	
Birmingham	34.7	24.7	20.7	8.32 [*]
36. Restitution.	(1,2,344:A)	(5:NA)	(6,7,849:NA)	
Knorrville and Benton Harbor	52.0	8.7	39.3	
Birmingham	26.7	22.7	50.7	23.76 ^{**}
38. Accord/dissord.	(142:NE)	(344:NE)	(5:NE)	
Knorrville and Benton Harbor	82.7	5.3	12.0	
Birmingham	76.0	14.0	10.0	6.52 [*]

^aA = Assentable; NA = Not assentable; NE = Not evaluated

^{*}Significant at .05 level

^{**}Significant at .01 level

consistently in each of the categories, wrote fewer story completions with acceptable choices than did the children in either of the two United States locations.

Table 10 shows for the Anglo-american culture-group the comparisons of the single deviant location with the mean of the two other locations in each of the five categories. The differences between the Birmingham story completions and the story completions of Benton Harbor and Knoxville children were in each case significant.

Scandinavian culture-group

In Tables 5, 6, 7, and 8 it was seen that the children in the Scandinavian culture-group were consistently second in rank order in terms of acceptable behavior. That is, it was consistently below the Anglo-american culture-group in percentages of stories with acceptable behavior; also consistently ranking above the Latin-american and the German culture-groups.

The Scandinavian locations constituted a homogeneous grouping in three categories: Category 31, Kisker's intention regarding the snare; Category 32, Gumman's intention regarding the snare; and Category 36, Restitution by the haxa.

In Category 33, Haxa's identity revealed in the snare, the story completions were sufficiently different to have produced significant within-group chi-squares. Drammen, Norway, was the deviant location, but, unlike Birmingham,

Table 11. Scandinavian culture-group locations. Comparison of the single deviant location with the mean of the two other locations on three item clusters of two categories.

Category	Item	Item	Item	Chi-
Location	cluster	cluster	cluster	squares
	%	%	%	
33. Berg's identity	(142:1A)^A	(3:1NA)	(445:1NE)	
Stockholm and				
Helsinki	54.7	12.7	33.3	
Drammen	63.3	18.7	18.0	9.54 ^{**}
38. Accord/dissord.	(142:1NE)	(344:1NE)	(5:1NE)	
Drammen and				
Helsinki	74.0	15.3	11.3	
Stockholm	82.7	8.7	8.7	4.03

^A A = Acceptable; NA = Not acceptable; NE = Not evaluated

^{**} Significant at .01 level

was deviant in being highest in its culture-group in frequencies of stories expressing values of acceptable behavior.

In Category 38, Agreed/disagreed between the boys, the item clusters were not evaluated as to acceptable or not acceptable behavior. Table 9 showed that the within-group chi-square for the Scandinavian culture-group in Category 38 was significant at the .01 level. Table 11, however, shows that when Stockholm was compared with the mean of Drammen and Helsinki, the differences were not significant.

Latin-american culture-group.

In terms of values expressed as acceptable behavior, the Latin-american culture-group consistently ranked third, below the Anglo-american and Scandinavian culture-groups and above the German culture-group.

The Latin-american children were conspicuously divergent from the children of the other culture-groups in another respect. In each of the five categories shown in Tables 5, 6, 7, 8, and 9, the Latin-american children wrote the highest frequencies of story completions that were vague, not clear, that had no information, or that omitted mention of the boys. The Latin-american children most frequently evaded the conflict situation.

The Latin-american culture-group was a homogeneous group on the one category which was not evaluated as to acceptable or not acceptable behavior, Category 38, Agreed/disagreed between the boys. On the four remaining categories,

Table 12. Latin-american culture-group locations. Comparison of the single deviant location with the mean of the two other locations on three item clusters of four categories.

Category	Item	Item	Item	Chi-
Location	cluster	cluster	cluster	square
	%	%	%	
31. Kicker's intent.				
	(142:A) ^a	(344:NA)	(346:NE)	
Mexico City and				
San Juan	30.0	53.3	17.3	
Rio de Janeiro	49.3	30.0	20.7	17.30 ^{***}
32. Companion's intent.				
	(142:A)	(344:NA)	(346:NE)	
Mexico City and				
San Juan	25.3	53.3	21.3	
Rio de Janeiro	41.3	33.3	25.3	13.03 ^{**}
33. Bora' identity.				
	(142:A)	(3:NA)	(445:NE)	
Mexico City and				
San Juan	31.7	18.0	50.3	
Rio de Janeiro	50.7	11.3	38.0	11.31 ^{**}
36. Reconstitution.				
	(1,2,344:A)	(5:NA)	(6,7,849:NA)	
Mexico City and				
San Juan	17.7	8.3	74.0	
Rio de Janeiro	33.3	4.0	62.7	14.04 ^{***}

^aA = Assentable; NA = Not assentable; NE = Not evaluated

^{**}Significant at .01 level

^{***}Significant at .001 level

Table 12. Latin-american culture-group locations. Comparison of the single deviant location with the mean of the two other locations on three item clusters of four categories.

Category Location	Item cluster %	Item cluster %	Item cluster %	Chi- square
31. Kicker's intent.				
	(142:A) ^a	(344:NA)	(546:NE)	
Mexico City and				
San Juan	30.0	53.3	17.3	
Rio de Janeiro	49.3	30.0	20.7	17.30 ^{***}
32. Gannanien's intent.				
	(142:A)	(344:NA)	(546:NE)	
Mexico City and				
San Juan	25.3	53.3	21.3	
Rio de Janeiro	41.3	33.3	25.3	13.03 ^{**}
33. Hera's identity.				
	(142:A)	(3:NA)	(445:NE)	
Mexico City and				
San Juan	31.7	18.0	50.3	
Rio de Janeiro	50.7	11.3	38.0	11.31 ^{**}
36. Reconstitution.				
	(1,2,344:A)	(5:NA)	(6,7,849:NA)	
Mexico City and				
San Juan	17.7	8.3	74.0	
Rio de Janeiro	33.3	4.0	62.7	14.04 ^{***}

^aA = Accountable; NA = Not accountable; NE = Not evaluated

^{**}Significant at .01 level

^{***}Significant at .001 level

Table 12 shows that Rio de Janeiro was the deviant location in that the children from this location wrote story completions more frequently containing acceptable choices than did the children from San Juan and Mexico City.

German culture-group

In Tables 5, 6, 7, and 8 it was seen that the children from the German culture-group consistently ranked fourth in the evaluated item clusters of acceptable behavior. The social values of the German children as evidenced by their choices were least frequently acceptable. In the same tables it was also seen that the German children consistently ranked highest in not acceptable behavior.

The German culture-group was homogeneous on one category, Category 38, Agree/disagree between the boys. On the four other categories, Karlsruhe was found to be the deviant location. Table 13 shows that the Karlsruhe children wrote fewer story completions containing acceptable choices and more story completions containing not acceptable choices than did the children from Hamburg and Munich.

Hypothesis II

Hypothesis II was that the culture-groups would be found to be homogeneous on the five categories. Instead,

Table 13. German culture-group locations. Comparison of the single deviant location with the mean of the two other locations on three item clusters of four categories.

Category Location	Item cluster %	Item cluster %	Item cluster %	Chi- square
31. Kieker's intent.				
	(142:1A) ^a	(344:1NA)	(546:1NE)	
Hamburg and Munich	38.0	53.3	8.7	
Karlsruhe	23.3	66.0	10.7	7.59*
32. Companion's intent.				
	(142:1A)	(344:1NA)	(546:1NE)	
Hamburg and Munich	35.3	52.3	12.3	
Karlsruhe	21.3	66.0	12.7	7.54*
33. Exx's identity.				
	(142:1A)	(3:1NA)	(445:1NE)	
Hamburg and Munich	37.0	22.7	40.3	
Karlsruhe	22.0	26.0	52.0	7.92*
36. Reinstitution.				
	(1,2,344:1A)	(5:1NA)	(6,7,849:1NA)	
Hamburg and Munich	22.7	16.0	61.3	
Karlsruhe	13.3	12.7	74.0	6.00*

^a A = Acceptable; NA = Not acceptable; NE = Not evaluated

* Significant at .05 level

the culture-groups have been shown to be heterogeneous in the following number of categories:

Anglo-american	5
Scandinavian	2
Latin-american	4
German	4

Hypothesis II therefore had to be rejected.

VII. DISCUSSION OF FINDINGS

With the acceptance of Hypothesis I that there were differences between the culture-groups and with the rejection of Hypothesis II that there were no differences within the culture-groups, the question should be asked: To what were these differences due? Schachter and his associates (29), in conducting cross-cultural experiments on threat and rejection, suggested three possible explanations when they found cultural differences. First, the differences may be due to experimental artifacts, which in this study would be the Football Story itself and the conditions under which it was administered. Second, the differences may be due to a more complex relationship than was originally supposed when the criteria for forming the culture-groups were considered. Third, the differences may be due to actual cultural differences. Each of these explanations will be considered in turn.

Experimental artifacts which could possibly have accounted for the cultural differences found in this study would have been operative in any one of several areas; administration of the Andersen Incomplete Stories, the sample of children gathered and included in the analysis, or the Football Story itself. The incomplete stories were administered in each location by local research teams drawn from university staff and students in psychology and education. The Andersens trained the teams, and, with one exception,

personally supervised the data collection in the classrooms. The data were collected under standardized, controlled, and known conditions (3). The administration of the incomplete stories does not appear to have been a source of error.

Regarding the sample, only seventh-grade children were included in the present study, the numbers of boys and girls being approximately equal. In each location the sample included children from the highest, middle, and lowest socioeconomic groups. With these controls, differences between the locations on these demographic variables were minimized to reduce sources of error in the sampling.

For this study, a random sample was drawn from the total data for the 12 locations. While this analysis and report were in progress, subsequent analyses of the total data for the Football Story were completed. The findings for the total data and the randomly-drawn data were not dissimilar. Thus, the randomly-drawn data were of sufficient numbers to have been sensitive to and indicative of the location trends reported.

The third area where an experimental artifact could have been a significant contributor of error is in the Football Story itself, or rather, the reliability and validity of the children's completions elicited by the Football Story.

The traditional test-retest approach to measuring reliability or stability of responses to the Andersen Incomplete Stories leads to difficulty because of memory factors. Geierhaus (16), reporting on a retest after a period of two

weeks, found Karlsruhe children rewriting their original completions to the Lost Meat Story (Number 2, Series A), with some children using the same wording. Retesting after longer periods is not desirable for a finding of differences in completions could be attributable to growth and developmental factors as well as to low reliability of the instrument.

Very little internal consistency in story completions of individual children was found by Tordal (33) in working with children's completions to the Football Story, the Lost Meat Story, and the Broken Axe Story (Number 4, Series B). This finding may be due to the fact that the different incomplete stories elicit different response tendencies by portraying different conflict situations or it may be due to the fact that the Andersen Incomplete Stories have low reliability.

An alternative approach for measuring reliability, one which is an adaptation of the test-retest technique, is to hold age constant and to draw samples of children from the same population at different times. In a study that is now being prepared for publication, samples of approximately 300 seventh-grade children were drawn from the same rooms in the same schools in the same neighborhoods in Munich, Germany, in 1954 and again in 1960. There were no significant differences between children from these two samples in their completions to the Football Story. Thus, there does appear to be some reliability to the Football Story.

Concerning validity, Farber (12) (and Klineberg as discussed in Farber) suggests that conclusions regarding national character are somewhat more valid if the findings from one study agree with the results of several other studies obtained independently. Two studies which seem to have aims quite similar to those of the present study are those reported by Farber (13) and Kaldegg (22).

Farber (13) posed the following question to United States and English insurance clerks: "A properly brought-up child should be..." The British and American patterns of responses to the question were quite different. Although the dimensions Farber studied were not exactly the same as those of this study, the important fact is that he reported consistent and significant differences in social values of his British and American subjects. It should be remembered that in the present study the Birmingham children were significantly different from the United States children in all five categories that were examined.

Kaldegg (22) analysed the responses of German and English secondary school boys to a projective test, using boys of the same age as the children included in the present study. He found that the German boys showed a marked anxiety over wrong doing, were in high agreement that severe punishment was the only sequence to an offense, and in general emphasized negative interpersonal relationships. On the other hand, the English boys were more lenient, successfully adapted punishment to meet the situation, showed greater

flexibility in their responses, and tended to emphasize more positive interpersonal relationships. The findings of Kaldogg are not at all unlike those reported in the present study where the German children were consistently found to rank highest in not acceptable choices and lowest in acceptable choices. The Anglo-american children were on the opposite extreme, being consistently lowest in not acceptable values and highest in acceptable values. Within the Anglo-american culture-group, however, the Birmingham children ranked above the United States children on not acceptable items and below on acceptable items.

These two studies taken together offer evidence for confirmation or validity of the findings reported herein.

The second explanation offered by Schachter and his associates (29) was that the cultural differences might be due to a more complex relationship than was originally supposed when the criteria for forming the culture-groups were considered. One factor which Cattell (8) did not include in the criteria was a consideration of the heterogeneity of a culture.

Anastasi (1) has indicated that descriptions of national character represent the modal or most frequent personality patterns within cultures. There may be varying degrees of deviation around a mode by individuals and sub-groups. She points out that the extent of heterogeneity of behavioral patterns within a culture may itself be regarded

as one important aspect of national character.

In discussing behavioral patterns relating to child rearing practices within the United States, Sears, Maccoby, and Levin (30) indicated that there is no uniformity. They said that "differences of ethnic origin, of socio-economic status, and of family size all contribute to the great variety of values and practices."

Consideration of cultural heterogeneity is relevant in the present study to the formation of the culture-groups. The locations were arranged into culture-groups on the basis of the similarity of their respective countries, not on the basis of the similarity of the locations (with the obvious exception of the German cities). Cultural heterogeneity was not taken into account. Perhaps for this reason the culture-groups were not homogeneous groups of locations. With a modal value of a number of locations from the same country, rather than a single location drawn from a heterogeneous culture, perhaps the culture-groups would be homogeneous.

The third explanation offered by Schachter and his associates was that the differences may have been due to actual cultural differences. Davis and Havighurst (9) pointed out that although there are personality differences between individuals within a culture, there are also many similarities. The mold of culture permeates through all, setting the limits and determining modes of adjustment.

In the present study consistent and significant cultural differences were reported between the groups of locations. Certain of these differences were on a dimension of social values. No interpretation of findings is free from cultural bias, and the evaluation placed on these findings is an open question, open to the interpretation of the reader.

VIII. SUMMARY

The Anderson Incomplete Stories have been administered to children in eight countries speaking seven languages. For this study data have been taken from children in the twelve principal locations in the eight countries. Completions to the Football Story, the fifth story in Series A, were written by 5,068 seventh-grade children in their native languages and translated into English.

For this study 150 seventh-grade children, 75 boys and 75 girls, with two exceptions, were drawn in random order from the pool of story completions from each of the twelve locations listed below.

The locations were arranged into four culture-groups as follows: Anglo-american culture-group: Benton Harbor, Michigan; Knoxville, Tennessee; and Birmingham, England. Scandinavian culture-group: Helsinki, Finland; Drammen, Norway; and Stockholm, Sweden. Latin-american culture-group: Mexico City; San Juan, Puerto Rico; and Rio de Janeiro, Brazil. German culture-group: Karlsruhe, Hamburg, and Munich, Germany.

The two aims of the study were to determine if the social values of the children differed between the culture-groups and to determine if the social values of the children from locations within culture-groups differed from one another. These problems were stated as hypotheses:

Hypothesis I: There are differences between culture-groups.

Hypothesis II: Locations do not differ within a culture-group.

Five categories comprising 35 items were used for coding and recording the story completions to the Football Story. Certain items in the coding categories were arranged into clusters classified as acceptable, not acceptable or not evaluated in terms of hypothesized and defined social values, based on general cultural expectations of children in the United States.

The frequencies of tallies in the item clusters were compared by a method of analysis using the components of the total chi-square. This method provided a means of testing Hypothesis I with the between-group chi-square components and Hypothesis II with the within-group chi-square components.

Hypothesis I that there were differences between the values of the children from the different culture-groups was accepted. Without exception the between-group chi-squares were significant beyond the .001 level. The rank order of culture-groups in acceptable social values was: 1, Anglo-american; 2, Scandinavian; 3, Latin-american; and 4, German.

Hypothesis II was that the culture-groups would be found to be homogeneous on the five categories examined. Instead, the culture-groups were found to be heterogeneous in the following number of categories: Anglo-american, five; Scandinavian, two; Latin-american, four; and German, four.

Hypothesis II that the children within the same culture-groups would make similar choices and hold similar social values when writing their story completions was not supported.

Each culture-group had one location deviant from the two others. Deviant locations high in acceptable social values were Drammen and Rio de Janeiro; deviant locations low in acceptable social values were Birmingham and Karlsruhe.

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APPENDIX A

Directions for administering the Andersen Incomplete Stories

Here are six short stories. Boys and girls in other American schools as well as in Germany, Mexico, and England have also written these stories. Read what happens in the story, then write what, in your opinion, happens next. Use your imagination. Write clearly, but do not try to write beautifully. Try to write as quickly as you can. If you make a mistake, strike out the word and continue immediately.

You will not be graded for these stories. Your teacher, the principal, and other teachers in this school will not even get to see these stories. We do not want you to put your name on the paper. Write honestly what you really think. If your name is not on the paper, you may even write something which you would not tell to a teacher or to anyone else.

I will now hand out the forms. You need not look at each other's papers as there are no right or wrong answers. You each have enough imagination to write for yourselves. (Hand out the papers. The teacher does not participate.)

On the top of the first page please write the date of your birth. Write the month, the day and the year, like this (write on the board) June 4, 1943. Then write how old you were on your last birthday (write 13). Now make a cross after boy or girl. Write the name of your school and give your school grade. Write what church you attend, or if you do not attend church, write none. When you write the occupation of your father, do not write the name of the company, but the kind of work he does, like carpenter, laborer, book-keeper. If your mother works away from home, write what she does. Otherwise write home.

If you read the first story you will see that there are some questions at the end. Please think about these questions, but do not try to answer them one by one. These questions are put there to help you finish the story. When you finish the first story, continue with the next story without delay. If I (test administrator) go through the aisles I am not trying to look at your paper and read what you have written. I will only see how far you have proceeded.

Try to finish all six (five) stories. You will have the entire period. Do you have any questions? If you cannot read a word, or if you have a question, or need a pencil, please raise your hand and I will then come to your seat. And now are you ready? If so, ready, start.

Andersen Incomplete Stories**Series A**

1. Frank and Peter are walking to school. Suddenly Frank grabs Peter's cap and throws it high up into the nearest tree so that Peter could not reach it with his hand. Frank had never done anything like this before. Neither had Frank and Peter quarreled with each other the day before.

Why did Frank do this? What does Frank think? What does Peter do? How does Peter feel about it?

Think about these questions, then finish the story quickly with a few sentences.

2. Michael's mother sends him to the store to get one pound of wieners. On the way home he puts the package of meat on the edge of the sidewalk and plays for a short time with his friends. A shepherd dog darts forward quickly, claws half the wieners out of the package and rushes away with them. Michael wraps up the remaining wieners and takes them home.

What does Michael say to his mother? What does his mother do? How does Michael then feel about it?

Think about these questions, then finish the story quickly with a few sentences.

3. The teacher suddenly discovers that fifty cents has disappeared from her desk. She looks up and sees that all the class are working on their arithmetic. She wonders what happened to the money and what she should do.

What does the teacher do?

Finish this story also with a few sentences. Tell what happened to the money and also exactly how the teacher feels and what she does.

4. Susan is sitting in the living room working on her homework. Suddenly she remembers her mother's new coat. She wonders how she would look in it. When taking the coat off she notices that she had got some ink spots on her mother's new coat. Just as Susan is trying to wipe out the ink spots her mother enters the room.

What does her mother say? What does Susan say? How do they both feel about it? What does each one do?

Think about these questions and finish this story quickly with a few sentences.

5. George and Tom are playing with a football. They knew that they should not play football on the narrow space in front of the house. George gives the ball a strong kick and the ball hits a window and makes a big crack in it. Tom thought that someone had appeared behind the window. No one could have seen who had kicked the ball against the window.

Finish this story with a few sentences. Tell how the two boys felt about it and what they did.

6. Betty often handed in her homework composition late to the teacher. This time it was an especially important composition, and she had, moreover, finished it. On the way to school she lost her composition book and could not find it anywhere.

What does Betty say to her teacher? What does the teacher say?

Think about these questions and finish this story with a few sentences.

Series B

1. Mary's grandmother gave her a beautiful vase for her thirteenth birthday. One day, Mary's mother comes in with flowers which she puts in the vase. She places the vase in the window, though she knows the window ledge is too narrow for this vase and that it might fall off. As her mother is dusting, she bumps the vase and it crashes to the floor and breaks. While Mary's mother is in the kitchen getting a cloth, Mary returns from school and finds the vase in pieces on the floor.

What does Mary do? How do they both feel about it? What does the mother say?

Think about these questions and finish this story quickly with a few sentences.

2. John worked hard and bought a new bicycle with his money. One Saturday, while John is playing with friends, John's father decides to ride this bicycle to the store to buy cigarettes. He leaves the bicycle in the street. When he comes out of the store he finds the front wheel bent and some of the paint on the frame badly scraped. No one is around. The father could still ride the bicycle home.

What does the father do? What does John do? How do they both feel about it?

Think about these questions and finish the story quickly with a few sentences.

3. The teacher has promised the class that if they work hard during the last month of the term they will have one day off to make a special trip. Several times during the last month the teacher talks about this trip. The children want to make this trip and they work very hard. Now it is the last week of the term and there is no time for a trip.

What does the teacher do? What do the children think, and how do they feel about it?

Think about these questions and finish the story quickly with a few sentences.

4. Herbert received for his thirteenth birthday a handsome camping axe. It is sharp and has a strong leather case. While Herbert is at school his four-year-old brother, Billy, sees the axe, looks at it a long time, picks it up, puts it

back, and finally takes it outdoors with him to play. Billy does not take the case off. He sings to himself as he walks about the garden, tapping the axe gently against a tree, a post, and the pavement. Herbert comes home from school, finds the axe in its leather case with some other toys. But he sees that the axe has cut through the leather case and the blade is chipped and blunted.

What does Herbert do? How does Herbert feel about it?

Think about these questions and finish the story quickly with a few sentences.

5. Kate, aged 13 years, has a little four-year-old sister, Clara. When Kate comes home from school Clara often wants to play with her and follow her and her older girl friends around. One day Clara took a very pretty new dress from Kate's wardrobe, put it on herself, and looked in the mirror. It was too long and hung to the floor. She gathered up the skirt in her arms and went out of the house for a walk. Kate came home from school, found her new dress crumpled on a chair. The skirt had been stepped on and dragged in the dirt. Clara said, "I wore your dress."

What does Kate do? What do Kate and Clara think about it and how do they feel?

Finish the story in a few sentences.

APPENDIX B

A description of the 12 locations included in the study.
Source of information: Encyclopedia Americana, New York:
Americana Corporation, 1960.

Knoxville, city, east Tennessee, situated on north bank of Tennessee river 111 miles northeast of Chattanooga. The population in 1950 was 124,770, making Knoxville the fourth largest city in the state of Tennessee. Trading center for livestock, dairy, truck, and poultry farm products. Great quantities of burley tobacco grown. Ores, minerals, and stone are processed. Textiles are the city's most important manufactured item; marble, furniture, electrical porcelain, cement and steel products follow.

Benton Harbor, city, southwest Michigan, situated on Lake Michigan. Population (1950) 18,769. Large trade in lumber, grain, and fruits; other industrial activities include auto accessories, steel casings, canning, veneer, machinery, and power shovels.

Birmingham, city and county borough, west central England, 110 miles northwest of London. Population (1951) 1,112,340. Britain's second largest provincial city. Heavily industrial--site of world's largest cocoa and chocolate manufacturer. Motor and electrical industries, typically many small industries with less than 50 employees. More important products include motorcars, bicycles, motorcycles, brassware, domestic utensils, and machine and hand tools.

Helsinki, city and capital of the republic of Finland. Located on peninsula in Gulf of Finland, 180 miles by rail west of Leningrad. It is Finland's chief commercial and cultural center, an important seaport. Industries include shipbuilding; textile, machinery and ceramics manufacture; tobacco processing and sugar refining. It exports lumber, pulp, plywood and paper. Population (1954) 396,300.

Drammen, city, south Norway, located on arm of Oslo Fjord, 20 miles southwest of city of Oslo. Population (1946) 26,994. A seaport with industrial activity heavily dependent upon lumber; there are lumber yards, sawmills, paper and pulp mills, and cellulose factories. There is also textile manufacturing.

Stockholm, capital and largest city of Sweden, southeast Sweden, located on Baltic Sea. The city is Sweden's cultural, commercial, and industrial center and ranks second among its seaports. Population (1958) 803,400.

Mexico City(officially Mexico, Distrito Federal), capital of republic of Mexico. Population (1950) 3,050,400. Population estimated at 4,000,000 in 1958. Cultural and political center of Mexico as well as heart of economic and industrial life. Industries of the city and surrounding areas include textile milling, flour milling, brewing, and manufacture of rubber goods, cement, steel and construction materials. Also, cigarettes, soap, leather, shoes, electrical supplies, and furniture.

San Juan, seaport and capital of Puerto Rico. In 1951 the adjoining city of Rio Piedras was merged with San Juan. Population (1951) 357,200; approximately 20 per cent of Puerto Rico's population. Forty-three per cent of the island's \$400,000,000 property tax is levied in San Juan. Principal industry: garment manufacturing, plastics, electronic appliances and equipment, textiles, machine tools, shoes, chemicals, drugs, publishing, jewelry, asphalt products and food distribution. Schools organized like those in continental United States. Classes conducted in Spanish.

Rio de Janeiro, seaport city in Brasil, located on Guanabara Bay. Formerly capital of Brasil. Important industries include textiles and refining of sugar. Sugar, coffee, cotton, tobacco, and fruits are important crops. Population (1950) 2,303,000.

Karlsruhe, city, west German Federal Republic, in Baden on Rhine river. Population (1950) 198,014. Has airport, railroad repair shops and factories making tools, machinery, stoves, and soap. Other industries are food processing, brewing, paper milling, printing, and pottery making.

Hamburg, seaport, north German Federal Republic, capital of federated state of Hamburg on Elbe river, 178 miles northwest of Berlin. The seaport is the biggest in Germany and before World War II was third largest in the world. Besides extensive shipyards there are manufactures of distillery products, felt, machinery, optical instruments, precision tools, tobacco, and wrought metal. Population (1950), city and state, 1,604,600.

Munich, capital of Bavaria, south German Federal Republic. Population (1950) 832,000. Noted for stained glass works, iron, brass and bell foundries, lithographing and engraving works, optical and mathematical instruments. Also breweries of Bavarian beer.

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