A SURVEY OF THE MUSICAL ENVIRONMENT IN THE HOMES OF KINDERGARTEN AND NURSERY SCHOOL CHILDREN OF DENTON, TEXAS

A THESIS

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I hereby recommend that the thesis prepared under my supervision by Ann Cornelia Korrer entitled

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PREFACE

Although many studies concerning musical talent in children have been carried on, there has been little work done in that phase of music which deals with musical interests among children. This fact is especially true in regard to work with children of preschool age. Since the world of the young child centers around the home, this study was undertaken in an effort to discover the extent and scope of musical environment in the homes of eighty-two kindergarten and nursery-school children in Denton, Texas.

A schedule was formulated through which information concerning musical interests and preferences of the various family members was gathered. Analysis of the data gathered brought to light interesting trends in music habits among the seventy-six families studied.

To Miss Ruth Steidinger, Director of the Division of Child Development, without whose untiring assistance and invaluable guidance the study would never have been possible, this volume is humbly dedicated.

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CHAPTER I

INTRODUCTION AND SURVEY OF LITERATURE

Parents of preschool children of today are slowly being awakened to the need for music in the home environment of their children if these youngsters will be expected to appreciate and understand beautiful music as they hear it throughout their lives. That music is important in the lives of well-adjusted, happy people cannot be over-emphasized. Its need has been realized for centuries. As far back as Aristotle and Plato, philosophers have written of the importance of music in the lives of men. These early men of wisdom agreed that "a nobler use for music is for the improvement of our manners and our souls."[1]

Although the modern philosophers and music educators of the present century have found no more eloquent words than those used by the ancient philosophers, Aristotle and Plato, they have, nevertheless, studied and enlarged upon these values in music. Tampke found certain primary values for music in the lives of men. These were improvement of the soul by development of the spiritual and moral element

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[1]Robert A. Tampke, "The Function of Music Education in the Organization of Personality," Unpublished Doctoral Dissertation, Graduate Division, Department of Music, University of Texas, Austin, Texas, 1947, p. 15.

in man, unification and completion of education, service to man as a language and a means of communication, and the humanization of man.[1] And so it is found that within the world of music man has not only the means for his immediate pleasure and leisure, perhaps often the gratifying tool whereby he may earn his living, but undoubtedly far more important in a world grown small through the telescoping of time and space in a machine age, the means for peaceful communication of his own philosophy, as well as that of his native land. Were statesmen to gather and try to understand the music of other nations and through it their dreams and hopes for the future, they might find that, at last, a universal language lay before them.

Lest the discussion become bogged down with politics and idealism, it might prove more practical to turn to a brief glimpse of the possible application of theories underlying the music values as they stand today. Perhaps a look into the musical environment of an American home would serve to set the stage. At four in the afternoon most of the family members, with the exception of the father, are at home. In her bedroom Jeannie, the high-school bobbie-sox daughter, is swooning over the latest jive record. She isn't hard of hearing, but the disc isn't half as good if

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[1] Ibid.

played any way other than triple-forte. Jack, the grade-school son, is having a fast game of baseball out on the side lot. He will finish in time for the Western and "super-duper" serials which come just before the evening meal. The murder mysteries begin at seven o'clock and follow one another at half-hour intervals all evening, so Jack's evening is outlined. Bessie is a fine cook but can't do a thing unless she can sob through the soap-operas as she works. The kitchen scarcely has time to cool off between dusk and dawn. Mother, however, is constantly on the go. There is the marketing, the mending, the meal planning, the Monday bridge club, the Wednesday church circle, and many other duties and enjoyments. She has little opportunity to sit down and enjoy the radio or phonograph until late in the evening, when the children are in bed. So what music does little four-year-old Mary hear? She may choose between Bessie's sob-stories, Jeannie's jive, or the blood-and-thunder music of Jack's programs. It is true that Mary is allowed to play her little nursery rhymes on Jean's phonograph while Jean is at school, but when the weather permits Mary would rather play outdoors during the day. The family owns a few semi-classical and classical records, but because they are large, difficult to handle, and expensive, Mary must wait until some interested family member will operate the phonograph and change records for

Mary's entertainment. Such moments are cherished by the youngster, but they are far too brief and seldom.

So it might seem that little attention is given music education in the home. If the family enjoys the radio or phonograph, it often plays for hours, regardless of the type of program, with no effort made to select better programs from poorer. Some family radios play continuously against a background of household noises. In some busy homes no one takes time to select specific radio programs and most of the family members are unaware of the radio at all, as it blares by the hour. Landreth and Read believe that under these conditions the child, like the adults in the home, may hear but not listen to music, and may even learn to disregard much of it.[1] It would seem a pity that such indifference and misuse of music in the home could lead to the development of an immunity to music in the child.

Is it safe to assume that Landreth and Read are referring to a child as young as one who has not yet enrolled in the elementary school? Can a very young child be expected to respond to, or listen to music? To both of these questions the answer is unmistakably, yes. Often parents are amazed to see that a baby will wave his or her arms and legs when music is heard. And who has not seen a

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[1]Catherine Landreth and Katherine Read, Education of the Young Child (New York: John Wiley and Sons, Inc., 1942), p. 195.

small tot's eyes brighten as he claps his hands when the circus band comes marching down the street?

It is true that small children do listen and respond to music. Hurlock contends that from their early association with music young children, by the time they are three years of age, develop definite preferences for certain types of music and have favorites within each type.[1] McLester is even more emphatic. She says:

> It has been noted repeatedly that even young children will ask for simple selections from the great masters (in preference to poorer music) when they are given an opportunity to express a choice.[2]

She points out further that the results referred to just now occur when the child has had an opportunity to become acquainted with good music. It would seem safe to conclude, therefore, that the most careful selection of music for the very young child would be not only advisable but essential, if the child would be expected to develop an appreciation and interest in music in both school and adult life.

Up to this point the discussion has generalized on the preschool child's music education. To just how young a child does this refer? Will a baby one month old respond to music, or must parents wait as long as two years or more before music will have meaning for their child? Froebel

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[1]Elizabeth Hurlock, Child Development (New York: McGraw-Hill Book Company, 1942), p. 306.

[2]Amelia McLester, The Development of Character Traits in Young Children (New York: Charles Scribner's Sons, 1941), p. 206.

insists that a lack of musical capacity is due to a lack of musical culture and stimulus in infancy.[1] This, of course, places importance upon early babyhood.

More specifically, Gesell finds in his study of the infant that rhythmic response and sound play may come in the first year.[2] Gesell further records spontaneous humming or singing of syllables, a wide range in tone, pitch, and intensity of voice, as well as a response to music with whole-body activity by eighteen months. Aldrich and Aldrich put the body response as early as nine months and find pleasurable reactions to music evidenced as early as six months.[3] Jensen puts the ability to make rhythmic motion in response to some musical stimulus at fifteen months.[4]

These and similar reports, based on laboratory experiments, serve to emphasize the importance, from the baby's earliest months, of a variety of good musical experience in the home. It would seem safe to conclude, therefore, that music appreciation, which is based on participation as well as enjoyable listening experiences, could be developed in all children, whether they have

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[1] Ibid., p. 105.

[2] Arnold Gesell, The First Five Years of Life (New York: Harper and Brothers, 1940), pp. 254-255.

[3] Charles Aldrich and Mary Aldrich, Babies Are Human Beings (New York: Macmillan Company, 1939), p. 29.

[4] Arne Jensen, Psychology of Child Behavior (New York: Prentice-Hall, Inc., 1939), p. 240.

special musical ability or not. Such a program must, of necessity, begin at an early age, and be carefully and intelligently guided by interested parents and families.

It might be well to consider, briefly, the appearance of special musical ability at the preschool age. It has been found that special talent can be expected to manifest itself early in life. Special musical aptitude manifests itself early in a child's life, as does the appearance of superior mental ability. Herbert Carroll believes that giftedness in music is found early in life and that it depends little upon experience.[1] However, he fails to state upon which factors it is dependent. McKinney agrees that musical gifts become apparent early in childhood and are "to a large extent independent of intelligence."[2]

Some interesting experimental work has been carried on in this field concerned with the relationship of musical giftedness and general intelligence. Perhaps one of the best known is Hollingworth's study of forty-nine children between the ages of eight and eleven, who ranged in intelligence quotients from 135 to 190. She applied five of the Seashore tests of musical sensitivity to these children. Her general conclusion is noteworthy. She decided "that

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[1]Herbert A. Carroll, Genius in the Making (New York: D. Appleton-Century Company, 1934), p. 194.

[2]Fred McKinney, Psychology of Personal Adjustment (New York: John Wiley and Sons Company, 1941), p. 217.

those intellectually superior children are not superior to the average children of their age in musical sensitivity as measured by these tests."[1]

Seashore, whose tests were used as a basis for the Hollingworth study, expresses the opinion that for the general population, the correlation between the musical capacities, as measured by his tests, and general intelligence is low.[2] He takes this lack of significant correlation to mean that these capacities are in no significant degree an evidence of intelligence. In fact, he goes so far as to refer to instances on record which tell of musical prodigies who were classified as intellectual morons. They have even been found in institutions for the feeble-minded. They may exhibit technical skill in performance, but rarely appear at the creative level, according to Seashore.

The logical conclusion, based upon the evidence found and presented, would be that general high intelligence will not guarantee musical ability; neither will musical ability always indicate high general intelligence. The latter statement is found to be true more consistently than the former. Mursell is very emphatic in his attention

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[1]Leta Hollingworth, A Handbook of Child Psychology, edited by Carl Murchison (Worcester, Mass.: Clark University Press, 1931), p. 641.

[2]Carl Seashore, In Search of Beauty in Music (New York: Ronald Press, 1947), p. 295.

to the presence of exceptions. He thinks that since contrary findings have been recorded, further study should be undertaken. Briefly, he states in this connection that "results out of keeping with the accepted generalizations always have a peculiar importance because they indicate that a problem still exists, and that research designed to clear up the conflict is in order."[1]

Another interesting conflict of opinions exists among the authorities. It pertains to the appearance of special musical talent. The argument resolves itself around the old feud concerned with the relative importance of heredity and environment. Many parents who are not musically inclined and who have had no musical education fear that their children, likewise, will have no talent in music. Musical parents, on the other hand, wonder about the probability of their children's inheriting musical ability. Here the discussion is not concerned with music appreciation, which has been discussed and found possible for all children regardless of an absence of specific musical talent. Rather, the inheritance of special musical talent is the particular topic for consideration at this time. How is the possible inheritance of particular musical talents looked upon by psychologists and geneticists? The question is controversial. Interesting laboratory studies cast only

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[1]James E. Mursell, Educational Psychology (New York: W. W. Norton and Company, 1939), p. 36.

dim light on the subject and authorities draw general conclusions. The subject calls for further intensive study.

Some leaders have spoken on the subject, and although their opinions are far from specific, they give some idea of the general attitude toward this problem. Bakwin and Bakwin state that musical ability is ordinarily familial and probably hereditary.[1] Although this first statement of theirs is far from specific, they become very emphatic when they go on to say that musical talent manifests itself early in life and reaches full maturity during early adulthood. Here again is brought out the importance of an early introduction to music.

Garrison gives a broad interpretation to the problem. According to him there are three possibilities. If the parents are both musical and the ancestors on one or both sides of the family are musical, the child will be musical. Secondly, if the parents are non-musical and the ancestors on one or both sides of the family are non-musical, the child will be non-musical. Lastly, if one parent is musical with musical ancestry and the other parent is non-musical with non-musical ancestry, there is a chance for both types of children, musical and non-musical.[2] It would

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[1]Ruth Bakwin and Harry Bakwin, Psychological Care During Infancy and Childhood (New York: D. Appleton-Century Company, 1942), p. 84.

[2]Karl Garrison, The Psychology of Exceptional Children (New York: Ronald Press, 1940), p. 124.

seem that Garrison is far from specific and leaves plenty of room for exceptions. One wonders upon what the musicality of the ancestors would be based. Music education a century ago was extremely rare. Usually it was limited to the daughters of the most privileged families in the metropolitan areas. Unless one became a famous concert musician, little record of the degree or existence of musical talent can be found. Without the assistance of a careful longitudinal study, Garrison's three possibilities would hardly seem very scientific.

Carl Seashore believes that Scheinfeld in his book You and Heredity is "undoubtedly right in holding that inheritance of musical talent eventually must be expressed in terms of the mechanisms of genes as are other forms of heritage."[1] Seashore, however, thinks that it remains to be shown that musical traits are really as specific as the genes by which they could be identified. He believes that the difficulty now is not with the theory of heredity as a principle, but with the psychological description of the musical mind in terms of inherited musical traits. Research in the field of musical talents and their genetic picture lags far behind other work in the realm of genetics. It is encouraging to note, however, that attention has been turned in that direction, and if and when the component

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[1]Carl E. Seashore, The Present Status of Research in the Psychology of Music at the University of Iowa, University of Iowa Studies, June 15, 1928, pp. 3-22.

genetic parts are found and assembled the question of the inheritance of musical capacity should be answered. Upon it will probably be based the future tests for musical talents, which up to this time have had little scientific basis, and at best point up not so much those who will succeed in music as those who will fail.

In 1928 Esther McGinnis applied the Seashore tests to sixteen children enrolled in the University of Minnesota nursery school. As a result of the study she concluded that, with suitable modifications, such as shortening the records and increasing the intervals between judgments, it appeared probable that these tests might become valuable instruments for use with young children.[1] No modified versions of this type have been put into use and the existing records are far too long and complicated to use with young children. Hollingworth states that the Seashore standardized tests cannot be applied until the

> mental age is about ten. This is because the directions for taking the test must be comprehended, and, as they are too complex for the intelligence of children younger than ten years, the musical sensitivity of those younger cannot be measured except in the case of exceptionally intelligent children.[2]

Ruby S. Friend has carried out one of the most interesting studies in this field of musical inheritance. In

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[1]Esther McGinnis, "Seashore's Measures of Musical Ability Applied to Children of the Preschool Age," American Journal of Psychology, XL (October, 1928), 620-623.

[2]Hollingworth, op. cit., p. 641.

her work the subjects included twenty boys and twenty-two girls (fifty-one to eighty-nine months of age), together with twenty-five of the fathers and thirty-five of the mothers. The children listened individually to records, and the time and degree of their attention was recorded. Two trials were given. The parents were given the Seashore Test for Musical Talent. In addition, each parent filled out a questionnaire giving information about the musical environment in the home and an individual estimate of his or her own musical ability, as well as that of the other parent. As a result of the study Friend concluded: The parent-child relationships were for the most part positive, but not high. There was indicated, also, a slightly closer relationship between mother and child than between father and child.[1]

This study, and those of Stanton and others in the field, still fail to give a definite answer to the problem. It may be said that heredity is important and cannot be disregarded when looking for musical talent in a young child. However, equally important is the environmental factor, without which musical talent could never be developed. Here again it should be emphasized that without an early introduction to music the young child may grow up immune to the

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[1]Ruby S. Friend, "Influence of Heredity and Environment on the Score of Kindergarten Children on the Seashore Measure of Musical Ability," Journal of Applied Psychology, June, 1939, pp. 347-350.

beauty and charm of good music.

Another piece of research which deserves recognition is the study done by Jersild and Bienstock. This is one of the few attempts to study more objectively some aspects of the field of music in relation to the responses of young children. This study was based on ninety-four subjects in a nursery school, a day nursery, and a kindergarten, along with seventeen adults. It consisted of making cinematic records of the performance of each subject as he was walking to the accompaniment of piano music or keeping time with his hands. Each record included a picture of the subject's movements, a light that flashed each time there was an accented beat in the music and a clock by means of which both the subject's movements and the accented beat could be timed. Among the general conclusions, it is interesting to note that the authors recommend a practical educational program which would include an opportunity for the child to participate in rhythmic activity, to develop an interest in rhythmic expression, and to be encouraged in self-expression.[1] They agree that such a program should exist for the child between the ages of two and five. In addition, the authors conclude that a person's estimate as to whether or not a child is keeping accurate

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[1]Arnold T. Jersild and Sylvia Bienstock, Development of Rhythm in Young Children, Child Development Monographs, No. 22, 1935.

time is unreliable when measured against objective tests. An objective test similar to the one just discussed would be an excellent aid in studies designed to test the influence of music in the home upon the musical performance of a child in early childhood.

The available literature, as reviewed, indicates, rather obviously, a lack of research material applicable to the study of relative effects of heredity and environment on the music appreciation and accomplishments of individuals.

CHAPTER II

STATEMENT OF THE PROBLEM AND PROCEDURE

This study was formulated and carried on in an effort to discover the extent and kind of musical environment in homes of preschool children. The field of music was selected because the investigator is particularly interested in the development of music appreciation in young children.

It was hoped, in this study, to investigate these areas and related aspects of the problem:

1. Is there any relationship between educational background of parents and music in the home?

2. Does occupational classification of fathers relate to musical environment within the home?

3. What musical instruments, and how many, are there in the home? Who plays them and how often? Have any family members taken formal musical instruction? If so, for how long? What are their music preferences? Are such music preferences possibly related to previous formal music education? Are the children in the study influenced in their choice of music by that offered in the home? Are any family members musicians by profession? What influence, if any, does this have upon the music found in the home and the musical interests of their children?

4. How many families have radios? How often are they played? Were the subjects allowed to operate the radio?

5. How many families make a habit of listening to specific programs, such as the Metropolitan Opera, the Philharmonic Symphony, the Bell Telephone Hour, the Lucky Strike Hit Parade, and the Hill-Billy Hit Parade? Which did they prefer?

6. How many families have phonographs? How many and what type of records were to be found in the various collections? How often were they played? Was phonograph listening related to radio listening? What types of records did the children prefer?

7. How long will a child listen attentively to music? What type of music does he prefer? Is there a relationship between a child's musical attention and his age or his sex?. Does the child respond to music he hears by dancing, tapping his feet, clapping his hands, or singing? Were the families in the habit of having informal music participation gatherings in the home? How many mothers sang as they went about their household duties?

The subjects selected for the study were the ninety-two children enrolled in the nursery schools and kindergartens of Denton, Texas, a community of 16,000 citizens. Of the original number, forty-six were enrolled at the Texas State College for Women, twenty-two in the nursery school

and twenty-four in the kindergarten. An equal number were enrolled at the North Texas State Teachers College, with sixteen in the nursery school and thirty in the kindergarten. However, for reasons beyond the control of the investigator, several of the original subjects were withdrawn from the study. Eight of the children lived beyond the city limits of Denton, making it impossible to carry on the home interview upon which the study was based. In addition, one child withdrew from the kindergarten of one demonstration school and a second, from the nursery school. Therefore, the total number of subjects who remained in the study was eighty-two. Of this number, six families had two children each in the study, one enrolled in nursery school and a second in kindergarten, making a total of seventy-six families. The sex distribution was thirty-four boys and forty-eight girls.

The data for this study were gathered by means of a personal interview. The investigator used a schedule set up for the purpose (see Appendix), called in the home of each of the eighty-two subjects, and interviewed either the mother or grandparent of each child in the study.

A preliminary study of five cases was made at the outset of the project. As a result of the analysis of these data, a few changes were made in the schedule before continuation of the interviews. It was found advisable to rearrange the order of some of the questions asked, in the interest of better rapport, and to avoid placing undue

emphasis on certain aspects of the schedule. In addition, the phonograph-record collections in the homes, when any existed, were counted in terms of the number of whole pieces, rather than by records themselves. This was deemed advisable, since among classical selections, especially, one piece may be continued on several records and therefore give unfair weight in relationship to the other selections. After revising the schedule in these minor respects, the investigator continued and completed the study.

The study would have been far more adequate had there been a test to determine the degree of influence music had on the subjects. The original problem included such a test. The test was designed to aid in tabulating the subject's interest in various types of music. Excerpts from representative selections of classical, semi-classical, popular, and cowboy music were chosen. The cowboy music was included throughout the study because of its unusual popularity among young children, particularly in this section of the country. The selections to be used had comparable rhythmic patterns, thereby excluding the possibility of a choice based on rhythm rather than composition.

The four representative selections were transcribed on a single disc to eliminate much of the mechanical inconvenience of changing records. The children were to be tested individually. The test was to be divided into two sittings, each about fifteen minutes in length. It was

explained to the child that he would hear two pieces and he was to decide which he liked better. By matching each type of music against the other three types it was assumed that the child's preference would become apparent.

A preliminary test was given to three of the children cnnsidered most capable in the nursery school of the Texas State College for Women. The children always chose the latter of any two selections played. The children did not seem to comprehend the meaning of the language used in giving the directions. They had no understanding of the meaning of making a choice between the better of two, or the prettier of two. They consistently chose the one they heard last.

It was thought that perhaps one selection could be likened to a clown, another to a parade, and so forth, and then perhaps the child would choose the same type of music each time. The difficulty with such a plan lay in the fact that the child would be apt to choose a piece because of the object or activity to which it had been likened, regardless of the music he heard. Because no more simple test could be devised, the idea was abandoned.

Subjective rating of the children's interests in music was next considered. Perhaps the teacher could decide what type of music a child preferred, and base her evaluation on his attention to the various types and his

response to them. This idea, likewise, was abandoned. There was not a sufficient number of teachers working daily with the children to qualify as raters. In addition, many subjective factors would need to be considered, such as the teacher's as well as the child's disposition on the day of the rating, the distracting factors in an uncontrolled situation, and other considerations.

This study, then, resolved itself to an analysis of the data, as represented on the schedule, and limits itself thereby to a survey of the musical environment in the homes of the preschool children.

CHAPTER III

PRESENTATION OF DATA

A total of seventy-six families was studied in an effort to ascertain the extent and scope of musical influence in the homes. These families represented a total of eighty-two children. In six instances there were two children in the same family, both of whom were included in the study, one in the nursery school and the other in the kindergarten.

Table I shows that the ages of the children ranged from thirty-three through seventy-nine months. The mean age was sixty months, the mode was fifty-two months, and the median was fifty-six months. These ages were calculated from March 1, 1948, which was taken as an arbitrary date since it appeared approximately midway in the study.

For sixty-nine of the families studied, both parents were living in the family unit. For the remaining families there was one in which the mother was dead and the child lived with the maternal grandparents. Since the grandmother had taken the place of the deceased parent, she was referred to as a parent throughout the study. The paternal grandparents in another case, in which both of the child's

TABLE I

AGE OF SUBJECTS

Age in Months	Number of Subjects	Percentage
30-34	1	1.21
35-39	6	7.32
40-44	6	7.32
45-49	7	8.53
50-54	7	8.53
55-59	5	6.10
60-64	8	9.75
65-69	19	23.17
70-74	16	19.51
75-79	7	8.53
Total.....	82	100.00

Mean - 60 months. Median - 56 months.
Mode - 52 months. Range - 33-79 months.

parents had died, were likewise treated as parents in the study, inasmuch as the child had been in their care since infancy. In three other cases the fathers had died, and although two widows had remarried, the arrival of the step-father had been so recent that no influence on the child's musical intereste could be expected. Three cases of divorce were recorded. None of the fathers in these broken

homes had lived with the family since before the child's first birthday so they were discounted in the study. One of the divorced mothers had remarried, and since the stepfather had been in the home for some time, he was treated as a parent. Throughout the study, therefore, in order to allow for family variations, the totals used were seventy-one fathers and seventy-six mothers.

Families ranged in size for total constellation (including roomers) from three in number to twenty-two in number (sixteen of whom were college students). The distribution of children is shown in Table II as follows: twenty-four had one sister, twenty-three had one brother, there were five cases in which a child had two brothers, and five in which a child had two sisters. Two children had three sisters and two children had three brothers. Another subject had two half-sisters and onehalf-brother. Eighteen of the children were singletons. There were six maternal grandmothers and one paternal grandmother living in homes with the subjects. There were two cases in which maternal grandfathers lived with the families. Four maternal aunts lived in homes which were visited and two maternal uncles resided with families interviewed. One family kept two male college students as roomers, one family had one male student, and one family had sixteen female students rooming in the home. Two homes had one female student each and one

TABLE II

FAMILY CONSTELLATION

Relationship	Male	Female
Parents		
Original parents	68	68
Widows		3
Widowers	1	
Grandmother in lieu of deceased mother.		1
Grandparents in lieu of deceased parents	1	1
Divorced mothers		3
Stepfathers	1	
Total	71	76

Relationship	Per Subject	Male	Female
Siblings			
One sister	24		24
One brother	23	23	
Two sisters	5		10
Two brothers	5	10	
Three sisters	2		6
Three brothers	2	6	
Two half-sisters	1		2
One half-brother	1	1	
Total		40	42

TABLE II -- CONTINUED

Relationship	Male	Female
Other Relatives		
Maternal grandmothers.....		5
Paternal grandmothers.....		1
Maternal grandfathers.....	2	
Maternal aunts.....		4
Maternal uncles.....	2	
Total.....	4	10

family employed a nurse. These people living in the home but not a part of the family constellation were not included in the study. A total of 243 persons, however, must be considered as influences in the homes of the eighty-two subjects in the study.

Educationally the parents of the children presented an interesting picture (Table III). Of the combined total for both parents, 6.86 per cent attended high school without graduating, 27.42 per cent received high school diplomas, 40.58 per cent had some college training but no degree, 76.66 per cent had a Bachelor's degree, 32.97 per cent had a Master's degree, and 15.49 per cent had a Doctor of Philosophy or a Doctor of Medicine degree.

Of the fathers in the study, 4.2 per cent had some high school training without receiving a diploma, 16.9 per

TABLE III

EDUCATION OF PARENTS

Education	Father		Mother		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Some high school.	2	4.23	2	2.63	4	6.86
High school graduate.....	11	16.90	8	10.52	19	27.42
Some college.....	12	16.90	18	23.68	30	40.58
Bachelor's degree	19	25.35	39	51.31	58	76.66
Master's degree..	15	21.13	9	11.84	24	32.97
Doctor's degree..	12	15.49	..	...	12	15.49

cent graduated from high school but went no further, 16.9 per cent had at least one year of college, 25.35 per cent went on to obtain a Bachelor's degree, while 21.13 per cent received Master's degrees and 15.5 per cent received Doctor's degrees. Of the mothers in the study, none had a Doctor's degree. There were, however, 11.8 per cent with Master's degrees, 51.3 per cent with Bachelor's degrees, 23.7 per cent who had at least one year of college, 10.5 per cent who had completed high school but gone no further, and 2.6 per cent who had attended high school but did not finish.

Tables IV and V indicate that the occupational status of the families studied was superior to that of the average total population of the country. The classification of occupations from the Sims Score-card for Socio-Economic Status was used as the basis for rating families. In Group I of that classification (professional men, proprietors of large businesses, and higher executives),

TABLE IV

OCCUPATIONAL STATUS OF FATHERS

Sims Occupational Class	Fathers	Per Cent
Group I	33	47
Group II	15	20
Group III	16	23
Group IV	7	10
Group V	0	
Total...	71	100

thirty-three fathers qualified. Of these men, who comprised forty-seven per cent of the seventy-one fathers studied, thirty-three per cent had Doctor's degrees, 36.4 per cent had Master's degrees, 21.3 per cent had Bachelor's degrees, six per cent had only two years of college, and three per cent went no further than high school graduation.

TABLE V

EDUCATION OF FATHERS AS RELATED TO OCCUPATIONAL STATUS

Education	Sims Occupational Groups										Total	
	Group I		Group II		Group III		Group IV		Group V			
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
High School												
1...												
2...							2	28.6			2	5
3...					1	6.3					1	1
4...	1	3	1	6.7	5	31.3	5	71.4			12	17
College												
1...												
2...	2	6	2	13.3	3	18.7					7	10
3...			2	13.3	3	18.7					5	7
4...	7	21.3	8	53.4	3	18.7					18	24
Post-graduate												
1...	12	36.4	2	13.3	1	6.3					15	21
2...												
3...												
4...	11	33.3									11	16
Total..	33	47	15	20	16	23	7	10	0	0	71	100

In Group II of the classification (commercial service, clerical service, large land owners, managerial service of a lower order than in Group I, and business proprietors employing from five to ten men), fifteen of the fathers were found, or twenty per cent. None of these men had a Doctor's degree, 13.3 per cent of the fathers in this group had Master's degrees, while 53.4 per cent had received Bachelor's degrees; 13.3 per cent had three years of college and 13.3 per cent had two years of college; and 6.7 per cent had high school diplomas but nothing further.

In Group III (artisan proprietors, petty officials, printing trades employees, skilled laborers with some managerial responsibilities, shop owners, and business proprietors employing from one to five men), there were sixteen of the fathers, or twenty-three per cent. Of these men, not any had a Doctor's degree, 6.3 per cent had Master's degrees, 18.7 per cent had Bachelor's degrees, 18.7 per cent had three years of college, 18.7 per cent had two years of college, 31.3 per cent had high school diplomas, and 6.3 per cent of the fathers had only two years of high school.

Seven of the fathers, or ten per cent of the total number of men, came in Group IV (skilled laborers who work for someone else, building trades, transportation trades, manufacturing trades involving skilled labor, personal services and small shop owners doing their own work). Of

these men, none had attended college, 71.4 per cent had high school diplomas, and 28.6 per cent had at least two years of high school.

No fathers came in Group V of the classification (unskilled laborers, common laborers, helpers, venders, and unemployed).

The variety and range of formal music education of the various family members proved interesting (see Table XXI in the Appendix). Of the total number of 243 persons having a possible influence on the children in the study, only thirty-seven or 15.2 per cent of them had any formal music education. This education ranged all the way from twenty-nine persons or 11.5 per cent who had less than one year of individual music instruction to parents who taught music as a profession.

Some of the homes contained various musical instruments. These ranged from the home with a harmonica to one with two pianos, of which one was a Baby Grand. Of the seventy-six families interviewed, forty-eight per cent of them had some instruments. Of this number, eighty-two per cent were pianos. One family had a child's as well as an adult's violin. Another family had a piano, a guitar, a French harp, and a saxophone. Some families had a piano and a violin, or a piano and various wind instruments.

The families interviewed who owned instruments showed a wide variation in the frequency with which they

played the instruments. In fifty-nine per cent of the thirty-seven families who owned instruments, they were played daily. Formal music instruction was being taken by fifteen family members at the time of the interviews. Of these fifteen cases, one mother, one uncle, twelve sisters and brothers were taking lessons. In the family in which the mother took lessons, the brother of the subject in the same household took lessons. Three subjects were taking lessons themselves at the time of the interviews.

Of the various family members, a total of 144 persons, sixteen mothers, nine fathers, fifteen sisters, eight brothers, two aunts, two uncles, and one grandmother were able to play instruments and did so in the home. However, nine of the thirty-seven instruments, or 24.3 per cent, were seldom played, and in three cases or 6.5 per cent of the cases the instruments were not played at all.

The type of music played on instruments was classical in only nine instances. In two cases semi-classical music was played, while three persons played popular pieces, one played religious music, one played cowboy music, and two played nursery rhymes, marches, and Christmas carols. In fourteen cases the music was taken from music instruction books used by children taking music lessons. It would seem that instrumental music was incidental and little, if any, apparent influence upon the child's choice

of music could be traced to instrumental music in the homes of people interviewed. Since the child's interest was not objectively measured, it is impossible to know whether any influence might have taken place.

The data on radios in the homes revealed that nineteen families owned one radio, thirty-four families had two radios, fourteen families had three radios, six families had four radios, and three families had five radios (Table VI). The mean number of radios was 2.2 radios per

TABLE VI

RADIOS PER FAMILY

Radios	Number of Families	Per Cent
0	0	0
1	19	25.00
2	34	44.74
3	14	18.42
4	6	7.89
5	3	3.95
Total..	76	100.00

family, while the mode was 2.71 and the median was three.

The average number of hours the radio played music weekly was next investigated. This, rather than a daily

average, was used because it was considered more accurate. It was found that radios played from two to forty-nine hours per week with a mean of 15.3 hours (Table VII). The median was 24.5 hours and the mode was nine hours. The subjects for the most part were allowed to operate the radios in the homes, although eight of the subjects were not permitted to do so.

TABLE VII

AMOUNT OF MUSIC ON RADIO PER WEEK

Hours	Number of Families	Per Cent
0-4	11	14.48
5-9	19	25.00
10-14	17	22.24
15-19	2	2.63
20-24	11	14.48
25-29	8	10.53
30-34	2	2.63
35-39	3	3.95
40-44	2	2.63
45-49	1	1.31
Total.....	76	100.00

Interesting radio preferences were noted. Among the mothers who had a choice, 28.95 per cent preferred classical music, 21.05 per cent chose semi-classical, 17.11 per cent preferred popular dance music, 2.63 per cent chose religious music, 1.31 per cent enjoyed cowboy music, 1.3 per cent preferred comedy radio programs, while 27.63 per cent had no choice. Table VIII shows program preferences for both mothers and fathers.

TABLE VIII

RADIO PREFERENCES OF PARENTS

Type of Music	Father		Mother	
	Number	Per Cent	Number	Per Cent
Classical.....	17	23.94	22	28.95
Semi-classical.....	12	16.90	16	21.05
Popular.....	8	11.27	13	17.11
Religious.....	2	2.82	2	2.63
Cowboy.....	1	1.41	1	1.31
Comedy.....	1	1.41	1	1.31
No choice.....	30	42.25	21	27.63
Total.....	71	100.00	76	100.00

Among the seventy-one fathers who showed a preference in music listening, 23.94 per cent chose classical music on the radio, while 16.90 per cent preferred semi-classical music, 11.27 per cent showed a preference for popular dance music, 2.82 per cent enjoyed religious music, 1.41 per cent liked cowboy music, and another 1.41 per cent enjoyed comedy. Of the fathers, 42.25 per cent had no preference in music entertainment on the radio.

An effort was next made to investigate the effect of educational levels of parents and radio preferences. It was found that 41.4 per cent of the men who had any choice to make enjoyed classical music (Table IX). Of these men, 23.53 per cent were holders of a Doctor's degree; 41.27 per cent, the majority in this group of men, had Master's degrees; while 23.53 per cent had Bachelor's degrees. Men who had some college training without completing their courses represented 11.77 per cent ofthe group. Classical music was not enjoyed by any of the men whose education was limited to high school. There were no men who had high school diplomas or less who enjoyed classical music.

Among the twelve fathers or 16.9 per cent who enjoyed semi-classical music on the radio, seventeen per cent were holders of a Doctor's degree, another seventeen per cent had earned a Master's degree, another seventeen per cent had earned Bachelor's degrees, and the remaining thirty-three per cent had graduated from high school.

TABLE IX

RADIO PREFERENCE OF FATHERS AS RELATED TO EDUCATION

Listening Preference	Education						Total	Per Cent
	Some High School	High School Grad.	Some College	Bachelor's Degree	Master's Degree	Doctor's Degree		
Number								
Classical...			2	4	7	4	17	23.94
Semi-classical.....		4		4	2	2	12	16.90
Popular.....	1	1		5		1	8	11.27
Religious...	1			1			2	2.82
Hill-billy..			1				1	1.41
Comedy.....			1				1	1.41
No choice...		6	8	5	6	5	30	42.25
Total....	2	11	12	19	15	12	71	100.00
Percentage								
Classical...			11.77	23.53	41.27	23.53	100.0	
Semi-classical.....			33.00	33.00	17.00	17.00	100.0	
Popular.....	12.5	12.5		62.5		12.5	100.0	
Religious...	50.0			50.0			100.0	
Hill-billy..			100.00				100.0	
Comedy.....			100.00				100.0	
No choice...								

Eight or 11.2 per cent of the fathers showed a preference for popular dance music. Of this group of men a majority, 62.5 per cent, had Bachelor's degrees. Twelve and five-tenths per cent of the fathers had Doctor's degrees, another 12.5 per cent had graduated from high school, and the other 12.5 per cent had some high school training but had not completed the course. There were no men with Master's degrees who chose modern music.

Only two fathers or 2.8 per cent preferred religious music. One of these men had some high school training but no diploma, while the other was a college graduate with a Bachelor's degree. One father who had some college education but no degree enjoyed cowboy music more than any other type of music. Another father, who had attended college without completing the course, enjoyed comedy and did not care for music at all.

As indicated in Table X, the various mothers in the study showed an amazingly similar picture to that of their husbands. Of the seventy-six mothers with definite preferences in music, 28.9 per cent chose classical listening. Of these, twenty-two mothers or 9.09 per cent had graduated from high school, 4.54 per cent had some college training but not a degree, 73.27 per cent had received Bachelor's degrees, while the remaining 2.6 per cent had Master's degrees.

Among the 21.0 per cent or sixteen mothers who preferred semi-classical music on the radio, 13.1 per cent had

TABLE X

RADIO PREFERENCE OF MOTHERS AS RELATED TO EDUCATION

Listening Preference	Education						Total	Per Cent
	Some High School	High School Grad.	Some College	Bachelor's Degree	Master's Degree	Doctor's Degree		
Number								
Classical...		2	1	17	2		22	28.95
Semi-classical.....			10	6			16	21.05
Popular.....	1	3	1	8			13	17.11
Religious...	1			1			2	2.63
Cowboy.....		1					1	1.31
Comedy.....		1					1	1.31
No choice...		1	6	7	7		21	27.63
Total....	2	8	18	39	9		76	99.98
Percentage								
Classical...		9.09	4.54	77.27	9.09		100.0	
Semi-classical.....			62.50	37.50			100.0	
Popular.....	7.69	23.07	7.69	61.53			100.0	
Religious...	50.0			50.0			100.0	
Hill-billy..		100.00					100.0	
Comedy.....		100.0					100.0	
No choice...		4.76	28.57	33.33	33.33		100.0	

some college background and 37.50 per cent had Bachelor's degrees. No mothers in this group had gone to high school without finishing, or gone no further than high school. None of the mothers had Master's degrees.

Thirteen mothers or nineteen per cent preferred popular dance music. Sixty-one and fifty-three hundredths of the group had Bachelor's degrees, while 7.69 per cent had some college training without completing the requirements for graduation; 23.07 per cent were high school graduates and 7.69 per cent had some high school training but no diplomas.

Like the fathers, two mothers or 2.6 per cent also chose religious listening. Of this group, fifty per cent had a Bachelor's degree and fifty per cent had some high school but no diploma. One mother, 100 per cent, who had a high school diploma enjoyed cowboy music most and another mother, 100 per cent, likewise a high school graduate, chose comedy programs in preference to music programs.

Among the children who listened to radio music, eighteen or 21.95 per cent preferred cowboy music, six or 7.32 per cent enjoyed classical music, five or 6.10 per cent liked semi-classical music, twelve or 14.63 per cent preferred popular music, twenty-five or 30.49 per cent preferred other types of music, one or 1.22 per cent had no choice, and the remaining fourteen or 17.07 per cent preferred marches. Table XI shows the subjects' radio preferences.

TABLE XI

SUBJECTS' RADIO PREFERENCE

Type of Music	Per Cent
Classical	7.32
Semi-classical	6.10
Popular	14.63
Religious	1.22
Cowboy	21.95
Other types	48.78
Total	100.00

Of the combined total of mothers and fathers included in the study, forty-eight or 63.1 per cent had no choice in music. Of this number sixty-two per cent were fathers. In this group twenty per cent of the men had high school diplomas, 26.68 per cent had some college training without having received degrees, 16.6 per cent had Bachelor's degrees, twenty per cent had Master's degrees, and 16.66 per cent had Doctor's degrees.

Eighteen mothers or 25.3 per cent showed no music choice. Of this number 9.09 per cent were high school graduates, 4.54 per cent had some college training but no degrees, 77.28 per cent, a majority, had Bachelor's degrees,

and 9.09 per cent had their Master's degrees. It is evident that these figures are widely scattered and show no trends concerning a lack of music favorites in relationship to the degree of education of the people who fall in this class.

Examples of favorite musical programs were included in the schedule in an effort to obtain a general picture of broad listening interests among the various people included in the study. Examples of classical, light classical, and semi-classical, of popular and cowboy music were included. Unless families made a habit of listening to the various programs included (Sunday Philharmonic Symphony, Metropolitan Opera Series, Bell Telephone Hour, Firestone Hour, Lucky Strike Hit Parade, and Hill-Billy Hit Parade), no record was made inasmuch as periodic, spasmodic listening would hardly indicate any real interest in the type of music offered on the various programs. A number of families listened to more than one of the various types included. Table XII shows that, as a whole, 13.3 per cent listened to the opera regularly, 34.1 per cent enjoyed the Sunday symphony, 90.8 per cent were in the habit of listening to the Bell Telephone or Firestone Hours, 23.2 per cent were in the habit of listening to the Lucky Strike Hit Parade, and 7.9 per cent made a habit of listening to one of the Hill-Billy Hit Parades, of which there are several in this section of the United States. Only eight or 10.5 per cent of the families listened to all

TABLE XII

RADIO PROGRAM PREFERENCES

Programs Listened to Regularly	Number	Per Cent
Metropolitan Opera only.....	0	0
Philharmonic Symphony only.....	0	0
Bell Telephone or Firestone Hour only....	10	13.16
Lucky Strike Hit Parade.....	2	2.63
Hill-Billy Hit Parade.....	0	0
Opera -- symphony.....	0	0
Opera -- Bell Telephone Hour.....	2	2.63
Opera -- Lucky Strike Hit Parade.....	0	0
Opera -- Hill-Billy Hit Parade.....	1	1.32
Opera -- symphony -- Bell Telephone Hour.	5	6.58
Opera -- symphony -- Lucky Strike Hit Parade.....	1	1.32
Opera -- symphony -- Hill-Billy Hit Parade.....	2	2.63
Opera -- Bell Telephone Hour.....	1	1.32
Opera -- Bell Telephone Hour -- Hilly-Billy Hit Parade.....	2	2.63
Opera -- Lucky Strike Hit Parade -- Hill-Billy Hit Parade.....	0	0
Opera -- symphony, Firestone Hour, -- Lucky Strike Hit Parade.....	9	11.84
Opera -- symphony, Lucky Strike Hit Parade, Hill-Billy Hit Parade.....	0	0
Opera -- Firestone Hour, Lucky Strike Hit Parade.....	1	1.32

TABLE XII -- CONTINUED

Programs Listened to Regularly	Number	Per Cent
Symphony -- Lucky Strike Hit Parade.....	2	2.63
Symphony -- Hill-Billy Hit Parade.....	0	0
Symphony -- Bell Telephone Hour.....	8	10.52
Symphony -- Bell Telephone Hour, Lucky Strike Hit Parade.....	12	15.79
Symphony -- Bell Telephone Hour, Hill-Billy Hit Parade.....	2	2.63
Symphony -- Bell Telephone Hour, Lucky Strike Hit Parade, Hill-Billy Hit Parade.....	1	1.32
Bell Telephone Hour, Lucky Strike Hit Parade.....	5	6.58
Bell Telephone Hour, Hill-Billy Hit Parade.....	0	0
Bell Telephone Hour, Lucky Strike Hit Parade, Hill-Billy Hit Parade.....	4	5.26
Lucky Strike Hit Parade, Hill-Billy Hit Parade.....	1	1.32
Opera, symphony, Bell Telephone Hour, Lucky Strike Hit Parade, Hill-Billy Hit Parade.....	2	2.63
None.....	3	3.95
Total.....	76	100.00

types of programs, and two or 2.6 per cent of the families did not listen to any of them.

Some families listened to certain of the programs regularly but omitted others. Of this group, no families listened to the opera and the symphony only. Two families or 2.6 per cent listened to the opera and Bell Telephone Hour only, while one family or 1.3 per cent listened only to the opera and the cowboy programs. No families reported listening to the opera and the modern favorite of the Lucky Strike Hit Parade to the exclusion of all other types of programs. One family or 1.3 per cent listened to the opera, the Bell Telephone Hour, and the Lucky Strike Hit Parade regularly, but to none of the other types of programs. No families listened to the opera, the Lucky Strike Hit Parade, and the Hill-Billy Hit Parade alone. Five families or 6.5 per cent enjoyed the opera, the symphony, and the Bell Telephone hour regularly. Two families or 2.6 per cent listened to the opera, the symphony, and the Hill-Billy Hit Parade and another two families or 2.6 per cent preferred the opera, the Bell Telephone Hour, and the Hill-Billy Hit Parade. One family or 1.3 per cent listened to all the different types of programs except the opera.

There were no families who listened only to the symphony. Two families or 2.6 per cent listened only to the symphony and the Lucky Strike Hit Parade, while twelve families or 15.8 per cent were in the habit of listening to the symphony, the Bell Telephone Hour, and the Lucky Strike

Hit Parade. Eight families or 10.5 per cent listened to the symphony and the Bell Telephone Hour to the exclusion of the other types of programs. Two families or 2.6 per cent enjoyed the symphony, the Bell Telephone Hour, and the Hill-Billy Hit Parade, while no families recorded listening to the symphony and the Hill-Billy Hit Parade alone, or to the symphony, the Lucky Strike Hit Parade, and the Hill-Billy Hit Parade to the exclusion of the other types of programs. One family or 1.3 per cent listened to all types of programs except the symphony.

Five families or 6.5 per cent enjoyed the Bell Telephone Hour and the Lucky Strike Hit Parade only, while ten families or 13.1 per cent indicated that they would rather listen to the Bell Telephone Hour and not to any other program included in the schedule. No family chose only the Bell Telephone Hour and the Hill-Billy Hit Parade. There was, likewise, no family which liked all programs except the Bell Telephone Hour.

Two families or 2.6 per cent liked the Lucky Strike Hit Parade to the exclusion of all other types of musical programs on the schedule, while an equal number preferred all other types of programs to the Lucky Strike Hit Parade. Four families or 5.2 per cent liked the Lucky Strike Hit Parade, the Bell Telephone Hour, and the Hill-Billy Hit Parade. One family or 1.3 per cent enjoyed the Lucky Strike Hit Parade and the Hill-Billy Hit Parade to the exclusion of

other types of programs. Nine families or 11.8 per cent liked all types of programs except the Hill-Billy Hit Parade. No families liked the Hill-Billy Hit Parade only.

The next consideration will be the ownership and the listening habits of families with phonographs. The evidence indicates, in some instances, similarity with the findings concerning interest in radio listening, whereas in others the preferences are quite different.

Table XIII shows that in forty-one cases or 54.00 per cent of the total seventy-six families in the study, there was at least one phonograph in the home. Eight families or 10.53 per cent had two phonographs, while one family

TABLE XIII

NUMBER OF PHONOGRAPHS PER FAMILY

Number of Phonographs	Number of Families	Per Cent
0	26	34.22
1	41	54.00
2	8	10.53
3	1	1.37
Total.....	76	100.00

Mean - .7 phonograph.
Mode - 1 phonograph.
Median - 1.5 phonographs.
Range - 0-3 phonographs.

rwported having three phonographs. Twenty-six families or 34.22 per cent had no phonograph in the home. Of the families having phonographs, two families or 2.6 per cent reported broken phonographs. Two families could not estimate the number of records in their collections and it was impossible to tabulate any data on them. In one instance a mother reported that the family phonograph was kept at the maternal grandmother's home because of an insufficiency of space in the subject's home. Since the subject and his family used the phonograph regularly each week, it was considered sufficiently influential to be included in the study. Nine of the children studied had their own phonographs. The average number of phonographs for the seventy-six families was found to be 0.7, with the mode, one, and the median, 1.5 phonographs.

Phonograph listening habits varied nearly as widely as did radio listening. Among the fifty families as a whole in which one or more phonographs were found, twenty-six per cent enjoyed classical music, nineteen per cent preferred semi-classical music, another nineteen per cent chose popular dance music, nine-tenths per cent preferred religious selections, eight per cent enjoyed cowboy music, and the remaining twenty-seven per cent preferred nursery rhymes, marches, and Christmas carols. Two phonographs or 0.4 per cent were broken and could not be used by the family and were therefore discounted from the study.

Table XIV indicates the averages, the number, and the types of phonograph records available in the homes of the subjects.

TABLE XIV

AVERAGES, NUMBER, AND TYPES OF PHONOGRAPH RECORDS

Types of Records	Mean	Mode	Median	Total Number of Records
Classical.....	8.8	10	10	404
Semi-classical.....	7.75	8	13	322
Popular.....	15.9	6	7	732
Religious.....	2.6	6	6	118
Cowboy.....	3.0	1	6	139
Nursery rhymes.....	5.06	6	6	253
Others.....	3.4	5	5	156
Total.....	46.51	42	53	2,124
Average....	6.64	6	7.57	

A majority of the mothers, fifty per cent, preferred classical records, while twenty-seven per cent enjoyed the semi-classical recordings, and the remaining twenty-three per cent preferred the popular dance records.

Among the fathers a majority, thirty-seven per cent, preferred the semi-classical records, whereas twenty-six per cent enjoyed the classical records, thirty-two per cent

chose popular dance records, and the remaining five per cent of the fathers preferred cowboy music.

Sisters of the various subjects seemed to show a preference for the popular, dance records; 18.75 per cent of the girls chose popular dance records, while 8.33 per cent preferred classical records, and 8.33 per cent chose semi-classical. Fourteen and five-tenths per cent selected cowboy recordings, and the remaining 27.08 per cent showed a preference for other recordings, including stories, Christmas carols, and nursery rhymes.

Of the brothers of subjects, 37.5 per cent likewise chose recordings which included stories, nursery rhymes, and Christmas carols, while twenty-five per cent of the brothers preferred classical records. Another twenty-five per cent chose popular dance records and the remaining 12.5 per cent of the boys enjoyed cowboy music.

Two thirds of the others living in the homes, including aunts, uncles, roomers, and grandparents, preferred semi-classical recordings, while the remaining one third enjoyed the classical phonograph records.

The number of phonograph records in the forty-eight homes in which phonographs were found ranged from three to 246 records. The average number of records was 46.7, while the median was 60.5 and the mode was eighteen. The mean of the classical records was 8.8, with the median, ten, and the mode, ten. The range of records of this type was

from one to forty. Of the semi-classical variety, the mean of records was seven, while the median was thirteen and the mode, eight. The range in the number of records of this type extended from one to seventy-five. Of the popular dance records, the mean was 15.9, the mode was six, and the median was seven. The range in the number of records of this type was from one to 125. Of the family groups who had cowboy records in their collections, the mean number of records was three, while the mode was one and the median, six. The range in the number of records of this type was from one to thirty-six. The mean of the religious records was 2.6, while the mode was six, and the median, six. The number of records in this classification ranged from one to forty. The mean of the nursery records was 5.06, the mode was six, and the median was six. There were from one to twenty-four records in this classification. Other types of records included stories and records upon which there was no music. In this class the mean of the records was 3.4, with the mode found to be five and the median, five. In eighteen cases parents had no classical records, while seventeen parents had no semi-classical records, eight parents had no popular dance records, thirty-one parents had no cowboy records, twenty-seven parents had no religious records, twelve parents had no nursery rhymes, and twenty-two parents had no story records.

From the above tabulations regarding musical background and interests in the home, certain comparisons become possible. An effort was made to ascertain whether those families having phonographs used their radios as much as families not having phonographs. Among the forty-eight families having one or more phonographs the average number of hours the radio played was 16.2 per week. The mode of the group was 6.6 hours and the median was 24.5 hours. The range in this group was from two to forty-four hours weekly (Table XV). Among the twenty-eight families

TABLE XV

AMOUNT OF RADIO LISTENING IN RELATION TO PHONOGRAPH OWNERSHIP

No Phonograph in Home		Phonograph in Home	
Hours of Radio Music Per Week	Families	Hours of Radio Music Per Week	Families
0-4	4	0-4	9
5-9	8	5-9	11
10-14	6	10-14	7
15-19	1	15-19	3
20-24	4	20-24	9
25-29	4	25-29	2
30-34	0	30-24	2
35-39	0	35-39	3
40-44	1	40-44	2
Total.....	28		48

having no phonograph it was found that the radio played on an average of 13.8 hours weekly, with a mode of 7.5 hours and a median of 22.5 hours. The range for this group was from two to forty-two hours per week.

Another interesting comparison was next considered to see whether the parents, either or both of whom preferred classical records, would have larger collections of phonograph records of this type than other families. These data are presented in Table XVI. For the twenty-three families in this group, the average percentage of classical records was 38.3, with the mode of 22.5 and the median, 37.5. Of the remaining forty-eight families, twenty-five preferred other types of records to the classical. The mean was 2.1 per cent. However, because of the difference in the distribution between the two tables, the mode and the median are the more significant figures. In the case of those families who preferred non-classical music, the median was fifty per cent and the mode was two. The wide variance between the modes as well as a similar variance in the medians of the two groups indicates the vast difference in range between the two tabulations and is more revealing than the means.

A total of forty-four parents -- twenty-six mothers and eighteen fathers -- preferred classical music for phonograph listening. However, only eighteen per cent of these people had a majority of their records in the classical group.

TABLE XVI

PROPORTION OF CLASSICAL RECORDS IN RELATION TO PREFERENCE FOR CLASSICAL MUSIC

Parent Prefers Classical Music			Parent Prefers Non-classical Music		
Classical Records; Per Cent of Total Collection	Families	Per Cent of Cases	Classical Records; Per Cent of Total Collection	Families	Per Cent of Cases
0-4	1	4.34	0-4	16	61.53
5-9	1	4.34	5-9	1	3.84
10-14	2	8.69	10-14	2	7.69
15-19	3	13.04	15-19	1	3.84
20-24	6	26.09	20-24	1	3.84
25-29	1	4.34	25-29	2	7.69
30-34	3	13.04	30-34	1	3.84
35-39	2	8.69	35-39	0	0
40-44	0	0	40-44	1	3.84
45-49	2	8.69	45-49	0	0
50-54	0	0	50-54	0	0
55-59	1	4.34	55-59	0	0
60-64	0	0	60-64	0	0
65-69	0	0	65-69	0	0
70-74	0	0	70-74	0	0
75-79	0	0	75-79	0	0

TABLE XVI -- CONTINUED

Parent Prefers Classical Music			Parent Prefers Non-classical Music		
Classical Records; Per Cent of Total Collection	Families	Per Cent of Cases	Classical Records; Per Cent of Total Collection	Families	Per Cent of Cases
80-84	0	0	80-84	0	0
85-89	0	0	85-89	0	0
90-94	0	0	90-94	0	0
95-99	0	0	95-99	0	0
100	1	4.34	100	0	0
Total.....	23	100		26	100

Mean - 38.32 per cent.
Mode - 22.5 per cent.
Median - 50.0 per cent
Range - 0-100 per cent.

Mean - 2.1 per cent.
Mode - 2.0 per cent.
Median - 50.0 per cent.
Range - 1-100 per cent.

In their radio listening, however, fifteen families or fifty-five per cent listened to the Metropolitan Opera on Saturdays, while twenty-one families or 80.4 per cent listened to the Sunday Philharmonic Symphony and the entire twenty-six families, in which the mother preferred classical records, had the habit of listening to the Bell Telephone Hour.

In their listening choice, either radio or phonograph or both, nineteen per cent of all the parents agreed

in their choice of listening preference. Of this number, forty-five per cent preferred classical music, thirty-three per cent enjoyed semi-classical selections, thirteen per cent turned to the popular dance music for their enjoyment, while seven per cent of them preferred religious music and four per cent of them turned to comedy for their entertainment. None of them chose cowboy music.

Of the thirty families in which parents agreed in their listening pleasure, fourteen had phonographs. Of this group, only twenty-eight per cent had a majority of their record collections falling within their preferred group. In other words, only three of the thirteen families in which mother and father reported preferring classical music had a majority of their musical purchases fall within the classical division. None of the families enjoying semi-classical music had a majority of their collections from the semi-classical category. The same can be said for those who preferred religious music. One of the four families preferring popular music collected a majority of records in this chosen class.

The fifth and last division of the schedule was designed to give information on some general considerations in the matter of music in the home environment of the children studied. It was given in order to ascertain the mother's opinion of her child's interest in music, as she had observed it, and in addition, to give the interviewer some idea

of the presence, or lack, as the case might be, of casual, informal music in the home.

According to parents' estimates it was found that children's attention spans ranged from zero minutes to over two hours while listening to music in the home (Table XVII). Three children between the ages of thirty-five and seventy-six months were capable of no attention spanat all. The youngest child in the study, a girl of thirty-three months, could listen one minute. One child, seventy-one months old, listened, on an average, three minutes, while four children between forty-five and forty-nine months of age listened four minutes, a seventy-three-month-old child listened five minutes, six children between the ages of forty-two and seventy-five months listened for ten minutes. Eighteen children between the ages of thirty-nine and seventh-three months of age listened as long as fifteen minutes, while seven children between the ages of thirty-five and sixty-six months of age listened twenty minutes. Seventeen children between the ages of thirty-seven and seventy-nine months of age would listen for one-half hour. Two children, seventy and seventy-three months old, respectively, listened no longer than forty-five minutes, on an average. Fourteen children who ranged in age between forty-five and seventy-five months in age would listen for one hour, while three children between the ages of thirty-six and sixty-six months would listen for two hours. Three children, who ranged in age from forty-five to

TABLE XVII

ATTENTION SPAN OF SUBJECTS WHEN LISTENING TO MUSIC

Minutes	Age in Months										Total
	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
0		1			2						3
1	1									2	3
2											
3									1		1
4				4							4
5									1		1
6											
7											
8											
9											
10			1		1		1	1		2	6
15		1	2		1	1	3	5	5		18
20		1	2		1		1	2			7
25											
30		2		2	1	1	1	5	3	2	17
35											
40											
45									2		2
50											
55											

TABLE XVII -- CONTINUED

Minutes	Age in Months										Total
	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
60				2	1	2	3	3	2	1	14
120											
240		1				1		1			3
Total	1	6	5	8	7	5	8	17	14	7	78

sixty-seven months, listened more than two hours at a time. It must be understood that these are the mothers' subjective opinions only.

Curiosity led the investigator to check the interests of the twenty children who were reported as listening on an average of one hour or longer. Of the fourteen children who listened one hour, three preferred classical music, while one liked semi-classical music, one liked popular music, and none chose religious music. Two of the children selected cowboy music and a majority, four in number, preferred nursery rhymes. One child had no choice, another preferred marches, while the last one chose Christmas carols. Table XVIII presents these data.

Of the three children reported as listening on an average of two hours, one enjoyed popular music and two

TABLE XVIII

SUBJECTS' LISTENING INTERESTS

Child's Listening Preference	Attention Span in Minutes			Total
	60	120	Over 120	
Number				
Classical.....	3			3
Semi-classical.....	1			1
Popular.....	1	1	1	3
Religious.....				
Cowboy.....	2			2
Nursery rhymes.....	4		2	6
Rhythms.....	1	2		3
Christmas carols....	1			1
No choice.....	1			1
Total.....	14	3	3	20
Percentage				
Classical.....	15		-	15
Semi-classical.....	5			5
Popular.....	5	5	5	15
Religious.....				
Cowboy.....	10			10
Nursery rhymes.....	20		10	30
Rhythms.....	5	10		15
Christmas carols....	5			5
No choice.....	5			5
Total.....	70	15	15	100

preferred marches. There were no children in this class who preferred classical, semi-classical, religious music, nursery rhymes, or Christmas carols.

Of the three remaining children who listened more than two hours, one chose popular music and the other two preferred nursery rhymes. No children in this class preferred classical, semi-classical, religious, cowboy music, marches, or Christmas music.

The next inquiry was to determine whether any sex differences existed in the children's music preferences. Of the thirty-four boys in the study, eleven preferred cowboy music, two chose classical music, one preferred semi-classical music, three enjoyed popular music, one chose religious music, twelve chose stories, one had no choice, and the remaining three boys preferred marches (Table XIX).

Of the forty-eight girls in the study, seven preferred cowboy music, four enjoyed classical music, another four preferred semi-classical music, nine girls chose popular music, none cared for religious music, while thirteen chose stories, and eleven preferred marches.

According to the mothers' estimation, only six children did not respond to music by dancing, singing tapping their feet, or clapping their hands. Most of the mothers reported that their children responded in all four ways.

TABLE XIX

CHILDREN'S CHOICES IN MUSIC ACCORDING TO SEX

Type of Music	Boys	Girls	Total
Classical.....	2	4	6
Semi-classical.....	1	4	5
Popular.....	3	9	12
Religious.....	1		1
Cowboy.....	11	7	18
Marches.....	3	11	14
Other types.....	12	13	25
No choice.....	1		1
Total.....	34	48	82
Per cent.....	41.5	58.5	100

Of the total number of mothers or grandmothers of the various children, fifty-eight per cent sing as they go about their work in the home, and eighty-seven per cent sing with and for the children. Of the fathers in the home, sixty-one per cent also sing with and for the children.

The songs the children preferred during these informal music sessions, usually held in the evening at bedtime, varied greatly. Forty-seven or 57.32 per cent preferred

nursery rhymes or Christmas carols, four or 4.87 per cent enjoyed classical lullabies, two or 2.44 per cent chose semi-classical selections, twenty or 24.39 per cent preferred popular pieces, six or 7.32 per cent asked for religious pieces, and three or 3.66 per cent preferred cowboy selections.

TABLE XX

INFORMAL HOME MUSIC

Parent Prefers Classical Music			Parent Prefers Non-classical Music			
Parents' Singing	Cases	Per Cent	Cases	Per Cent	Total	Total Per Cent
Mother sings while working	16	35.55	29	64.44	45	99.99
Mother sings with child...	27	40.94	39	59.00	66	99.95
Father sings with child...	16	36.36	28	63.63	44	99.99

Since there were thirty-six cases, or forty-seven per cent of the group, who had formal music instruction for a period of four or more years, curiosity was aroused concerning a possible relationship between this education and opportunities for musical experience offered to children in their homes. It did not seem advisable to investigate

further those people who had less than four years of music education since much of the first four years is spent in learning the mechanics of the art of playing an instrument and little time is devoted to the interpretation and mastery of more classical selections.

In only one family had both mother and father studied music more than four years. Of the total number of thirty-six persons, nine in this particular group were fathers, twenty-two were mothers, two were sisters, one a brother, one a half-sister, and one an aunt.

Of this group of thirty-six persons who had studied music at least four years, 51.8 per cent had studied just four years, 3.2 per cent studied five years, 13.0 per cent studied six years, 6.4 per cent had studied seven years, 9.6 per cent studied eight years, 3.2 per cent had studied for eleven years, 6.4 per cent had studied for twelve years, 3.2 per cent had studied thirteen years, and 3.2 per cent had studied for twenty years.

Various instruments were studied but the piano was apparently the most popular. Twenty-six people studied the piano; two, violin; one, dancing and piano; three, voice; one, trombone; two, bass horn; and one, saxophone, clarinet, and French horn.

Further analysis of the thirty-six persons who had studied at least four years of formal music instruction revealed additional information about their musical choices.

The statistics showed that twenty-seven persons, or seventy-five per cent of the families represented, owned phonographs. Fourteen per cent had no classical records in their collections. Four per cent of the families could not estimate how many records there were in their individual collections and twenty-five per cent of the families in this class had no phonograph. The remaining fifty-seven per cent had some classical records. On an average, only twenty-six per cent of their collections were classical.

Perhaps the six cases in which some family member had studied music as a college course should be considered and reviewed briefly. The most prominent case would be that of the forty-five-month-old nursery-school child whose father taught piano in the Music Department of one of the colleges in the community. This man had studied in London for two years, in Philadelphia for one year, in the Paris Conservatory for one year, in addition to many years of study in New York. He estimated his music education extended over a period of twenty years. He had appeared in concerts with the Kansas City and Dallas symphony orchestras. The family was in the habit of listening to the classical programs on the radio and preferred them to other types. Although classical music was heard in the home daily, the child preferred Christmas carols. Twenty per cent of the record collection in this home was classical in nature, while fifty

per cent was modern, popular music. The remaining thirty per cent of the records were nursery rhymes or other children's records. When phonograph records are played, the child preferred children's stories to the Ravel, Debussy, Beethoven, and Brahms selections his parents enjoyed hearing. It would seem apparent that the child preferred other than classical music. However, he recognized the melodies of several classical selections which he heard at home. His mother contended that his interests were not unusually turned in the direction of the classical.

The second case is that of the family whose father teaches voice in one of the colleges in the town. Although a graduate in business administration, the father had always been a fine singer and did much work in music as a hobby. He turned from business to the study of music in New York and then to various types of broadcasting in that city. He now directs the choral singing and teaches voice at one of the colleges. In the family's record collection, forty per cent was classical in nature. Although both parents enjoyed classical music, the children, one in nursery school and one in kindergarten, chose children's stories with musical background. The parents agreed that the younger of the two children seemed more interested in and showed more ability in music (with reference to singing alone) than did the older child.

In the third case, the father directs the band in one of the colleges. He plays the piccolo, although never at home. This mother had no favorites among radio or phonograph music and said that her husband had none, either. The family is not in the habit of listening to the opera or to philharmonic radio programs. In the record collection of the family there is no classical music. There is, however, some semi-classical music, together with nursery rhymes and children's stories. The child in the home had no favorite types of music and did not sing with members of the family. It would seem that although the father had a musical education (the wife likewise studied music for six and one-half years), no effort was being made to introduce music into the home.

The fourth case was that of a college teacher who played in the college symphony orchestra. He played the saxophone, clarinet, and French horn. The last two instruments he had studied for fifteen years. Both the mother and father prefer classical programs on the radio, but they do not have a phonograph. They are in the habit of listening to the philharmonic symphony and the Bell Telephone Hour. Their nursery-school child enjoys rhythmic music and prefers marches or popular dance music.

The mother of a nursery-school child minored in music while in college. Although she had played the piano in the course of her musical education, there was no piano in

the home. There was a clarinet which her two sons, ages eleven and twelve, had played for nine months. Both of the boys were members of the local Boys' Choir. They enjoyed semi-classical music although both their parents chose classical music on the radio and phonograph. The family was in the habit of hearing the philharmonic orchestra and the Firestone Hour in addition to the Lucky Strike Hit Parade. Of the family phonograph collection, twenty-two per cent was classical, while an additional nine per cent was semi-classical.

Two additional parents studied music while in college. One mother had minored in music and before her marriage had taught public-school music. This mother prefers semi-classical music on both the phonograph and the radio. Of the total record collection in their home, twenty per cent was classical and another twenty per cent was semi-classical. Forty per cent of the records were popular dance tunes. The child, like her mother, preferred semi-classical music. The father showed no preference. The child began taking piano lessons about twelve months ago, and according to her teacher, is doing astoundingly well. The teacher believes that the child has unusual musical ability and shows signs of being a musically talented child.

The father in still another family studied violin during the two years he attended college. He is now a

piano tuner. The mother of the family studied piano for five years and the oldest child in the family, a daughter of twelve years, has taken class violin for three years. She and her parents prefer classical music on the radio. The subject and his brother, however, prefer cowboy music. The family does not own a phonograph.

CHAPTER IV

ANALYSIS OF DATA

One of the most unexpected results from the tabulation of the data on the educational levels of the parents was the large number of fathers and mothers who had not only gone to college but who had earned one or more degrees. Among the fathers only 21.1 per cent had not attended college. The percentage for the mothers fell even lower. Only 12.5 per cent of the mothers had never attended college. It was discovered, in addition, that among the children included as subjects in the study, 63.9 per cent came from homes where one or both parents had the benefit of complete college educations. These children, then, came from homes with educational accomplishments far above the average for the country as a whole, as well as for the community in which they live.

How many of these families who are educationally fortunate are also occupationally select, and is there any relationship between these two factors? Since forty-seven per cent of the fathers were occupationally in the top bracket, it might be assumed that these men should be educationally superior as well. The data revealed that ninety-one per cent of the men in Group I of the Occupational Division of the Sims Score Card of Socio-economic Status had

the benefit of a full college course, 36.4 per cent had earned a Master's degree, and 33.3 per cent had Doctor's degrees. A high correlation between education and socio-economic status was expected in the light of the definite tendency toward close relationship. However, the correlation was only .024, which was negligible and must be indicative of a lack of relationship between the two factors tested. The lack of correlation may be due to certain widely scattered cases.

It is also interesting to note that forty-seven per cent of the fathers in the study come in the top group occupationally and that sixty-one per cent of the fathers had at least one college degree. All but nine per cent of the fathers with college degrees are in the two top occupational groups. Of the men who belong in occupational groups lower than the top two, eighty-two per cent never graduated from college. In these same groups fifty-six per cent never attended college at all. In addition, among the sixteen men who did not go beyond the high-school level, ninety-three per cent fall in occupational groups below the top two.

An average of 2.2 radios per family was found. These radios played music 15.3 hours per week. Forty-six of the families played their radio less than the average length of time and forty-six per cent of these families preferred classical music on the radio. Thirty families played

music on the radio more than 15.3 hours per week and of this number thirty-five per cent preferred classical music. This difference of eleven per cent is too small to indicate the existence of a relationship between radio listening time and preference for classical music on the radio.

The general trend in music preference on the radio and the years of education of the parents follow the same lines as shown for educational experience in its relation to occupational advancement. In this case it would appear that with an increase in the number of years of education there is a corresponding increase in interest in classical music. Of the fathers with college degrees, fifty per cent preferred classical music while an additional twenty-seven per cent chose semi-classical. Of the men who had no college training, not one preferred classical music.

The mothers, likewise, preferred classical music more often as they went up the educational scale. The few scattered cases, again, prevented the investigator from finding as high a correlation as might have been expected. However, a very definite trend was found toward the selection of more classical music as people are better educated.

Sixty-six per cent of the homes have one or more phonographs. The phonograph plays on an average of 16.2 hours per week. The average number of phonographs per family was found to be 1.5.

The investigator wondered whether, perhaps, the homes which had no phonographs turned more often to the radio for musical entertainment. The contrary was the case, however. Among the families having a phonograph, the radio played music an average of 16.2 hours per week or nine-tenths of an hour longer than the average for the entire group, which was 15.3 hours. In the homes where there was no phonograph the radio played 13.8 hours per week, which was 2.4 hours less than for the radios in homes also containing phonographs. The results show, then, that the families having both a radio and a phonograph have music 17.4 hours more per week than those who must turn only to the radio for musical programs. It shows that the families who have both means of entertainment have over fifty per cent more music than the families having only the one means of listening to music.

The average number of phonograph records was 46.7 records per family for the twenty-eight families having phonograph records. The collections ranged in number from two to 246 records per family. It was thought that perhaps those families whose members preferred classical music would have a higher percentage of classical records in their collections than the families who preferred other music. Analysis showed that for the families having classical preference, 38.3 per cent of the collections were

classical in nature, while for the families enjoying other types of records in preference to the classical, only 7.75 per cent of their record collections were classical. Of these people, sixty-five per cent had four or fewer records in their collections with an average of 2.1 records in the collection. However, among the people who enjoyed classical records, twenty per cent had from twenty to twenty-four records in their collections. The average number of records in this group was thirty. It is evident, then, that the people who enjoyed classical music had not only larger collections of records, but also a greater percentage of classical records than those who preferred other types of music.

It was wondered whether, perhaps, the families who enjoyed classical music also enjoyed the informal music of singing around the house and singing with and for their children. This was not the case. The four children whose mothers preferred classical music asked for classical lullabies at night. No child whose mother cared for other types of music in preference to the classical liked classical music for singing time. The correlation between the mothers' classical preference in music and their informal singing time with the children was $\neq .002$, which indicated a lack of relationship.

There was no significant correlation between a child's age and his attention span when listening to music. Likewise, there was a lack of correlation between the child's

sex and his attention span. Consideration was given to the possibility of a relationship between a child's sex and his choice in music. It was thought that perhaps boys would show a decided preference for certain types of music and that the same would be true for the girls. The correlation here again was so small, $/.101$, that its significance is only in the fact that a complete lack of relationship existed and that sex does not determine a child's musical preferences at this age.

The further investigation of the select group of families, whose parents had received special musical training of four or more years, showed some variation from the others in the amount of academic education. Among the total of twenty-nine parents who had the benefit of four or more years of music education, eighty-seven per cent were college graduates, whereas for the others only a much smaller percentage had graduated from college. All the mothers in the group were college graduates and only four of the fathers were not college graduates. There is a close relationship between musical education and the completion of college. Since, in many cases, the parents taking music did not do so while going to college, the two quantities would hardly be dependent one upon the other. In a majority of the families, or seventy-six per cent of the cases, the occupational level of the families was in Groups I and II. This factor

might be more significant than the educational factor, and further study may uncover a close relationship between economic levels of the family and the number of years a person has played an instrument. Since further questions with respect to this aspect of the problem were not included in the schedule, it will suffice to suggest that a relationship between music education and the occupational as well as educational levels of the families does exist, but that the factors contributing to the tendency have not been defined.

Although some parents may have studied music for four or more years, those in the group who have phonographs do not necessarily prefer classical music. However, a majority, sixty-one per cent of the parents, did have more classical than any other type of phonograph records, whereas for the total group the percentage was much lower.

Of the children whose parents had four or more years of music instruction, twenty-four per cent chose classical and semi-classical music for their phonograph listening pleasure. This is only six per cent higher than the average percentage for the entire group of seventy-six families. It seemed that the number of years a parent has taken music lessons did not change, appreciably, the child's choice in phonograph-record selection.

Would the families in which members had four or more years of music instruction listen to the phonograph and radio more or less often than the others? It was found that the

radios in homes where there had been special music training played 7.3 hours less per week than for the others in the study. In phonograph-record entertainment, the families having members with music instruction over a period of four or more years play the phonograph more per week than the families in which no music instruction had been included.

In habits of listening to classical programs on the radio, 20.7 per cent more listened to the Metropolitan Opera, 25.9 per cent more listened to the Philharmonic Orchestra, and 58.8 per cent more listened to the Bell Telephone Hour when they had four or more years of music instruction than did the remainder of the group.

It would appear that although parents with formal musical background have more classical records and enjoy the classical radio programs more often than families in which there is no formal music study, this increased preference was not repeated for the children. It would be interesting to try to ascertain just which factors account for a child's choice in music. Formal music instruction for the parents did not appear as a primary factor in determining the choices made by the children in these families.

CHAPTER V

RECOMMENDATIONS, CONCLUSIONS, AND SUMMARY

Before making recommendations and drawing conclusions, the writer deems it wise to consider the limitations of the study. Perhaps the most glaring flaw is the size and nature of the sample. According to McCormick, poor samples are those that include items from outside the universe they are intended to represent, those that omit important elements of the universe, or those that include elements of the universe in the wrong proportions.[1] To the last two accusations this study pleads guilty.

Essential elements of the universe were omitted. Had all children of the ages from thirty-three through seventy-nine months living in the community been included in the study, broad significant conclusions could have been drawn with regard to the homes of children within the age range studied in the area. Since the nursery school and the kindergarten are not included in the public school system of the community, only a small minority of children from two through five years of age were readily available for the problem. To have a more representative and satisfactory sample would have meant canvassing the community and taking the

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[1]Thomas Carson McCormick, Elementary Social Statistics (New York: McGraw-Hill Book Company), pp. 6-7.

sample from the total child population within the age range studied.

The sample used for the study did not present a cross-section of the universe, but presented elements of the universe disproportionately. The Classification of Occupations Division of the Sims Score-card for Socio-economic Status was referred to in classifying the families occupationally. With no representation at all in the lowest group and only ten per cent in the next lowest, while sixty-seven per cent fell in the two top groups, the sample is far from representative of the universe or the local community.

The schedule used for gathering the data was never tested for accuracy, validity, or reliability. There was no way in which to apply it to known data inasmuch as no similar study could be found. If such data had been available, it would have been possible to check the accuracy of the schedule and show how closely the returns agreed with other similar information.

Had the sample been twice as large as it was, a parallel study might have been carried out in an effort to improve the accuracy of the results and study its effectiveness in measuring what it set out to measure.

Some future research possibilities related to findings in this study will now be briefly indicated.

It would be interesting to know whether parents whose children go to nursery school and kindergarten just happen to

have better status educationally and occupationally or whether certain factors would account for their presence in the schools. Since these children were taken into school in the order of their applications for admittance, all families had an equal opportunity to enroll their children. The very low tuition, however, would undoubtedly have some effect. Other factors must account, to some extent, however, for the uneven socio-economic and educational status between the families with children placed in these preschool groups and for the population as a whole.

Another question still unanswered is, What factors influence a child's choice in music enjoyment? Since this study shows no relation between parents' preference in music and the child's choice, it would be interesting to pursue further possible contributing factors influencing children's choices.

There should be research designed in an effort to test, objectively, musical interests. Is it rhythm, melody, tempo, or a combination of these factors which leads the child to select cowboy music and marches in preference to other types of music? Could the child be taught to prefer classical music by introducing selections with equally captivating rhythms and patterns?

One further suggestion for future study might pivot on the finding which indicated that families who prefer classical music listen to the radio and phonograph less than

those who prefer other types. This might be a challenge for future study.

On the basis of the research completed, a few general conclusions will now be drawn:

1. A majority of the children came from educationally superior homes. Fifty-three and nine-tenths per cent of the children lived in homes where both parents had at least one college degree. Seventy-five per cent of the children came from families in which at least one of the parents, if not both, had received one or more college degrees.

2. A majority of the children came from homes in which the fathers engaged in professions classified in the two highest occupational brackets of the Sims Score Card.

3. There were forty-six families which listened to radio music less than the average number of hours for the entire group. Forty-six per cent of these people preferred classical music. On the other hand, there were thirty families who listened to radio music more than the 15.3 hours per week calculated as the average radio music time for the entire group. Of this number, only thirty-five per cent preferred classical music.

4. Preference for classical music was very similar for both parents. Fifty per cent of the fathers with college degrees preferred classical music. Another twenty-seven per

cent of the fathers preferred semi-classical music. No fathers, however, who had not been to college chose classical music as their preference. Only 2.6 per cent of the mothers who had only a high school education preferred classical music, whereas 26.2 per cent of the mothers who had attended college preferred classical music.

5. In the families which had a phonograph, the radio played music 16.2 hours per week, nine tenths of an hour longer than the average, whereas in the homes where no phonograph was available, the radio played 2.4 hours less than the average.

6. In the families which preferred classical records, 38.3 per cent of their record collections were classical. Only 7.75 per cent of the collections were classical when the parents did not prefer classical music.

7. For the people who preferred classical music, thirty-eight per cent of their record collections was classical, whereas the people who gave preference to non-classical music had a percentage of only 2.1 among the classical variety.

8. No relationship could be found either between a child's age and his attention span or between his sex and his attention span while listening to music.

9. There is no significant relationship between a child's sex and his preference in music.

10. More parents who do not prefer classical music sing while they work, and also to their children, than do parents who like classical music.

11. No child whose parents preferred non-classical music asked for classical songs to be sung. Only four children whose parents preferred classical music asked for classical songs to be sung.

12. For those families having members who had studied music a minimum of four years, a number of contrasts from the group as a whole were noteworthy:

a. Of these thirty-six people, eighty-seven per cent were college graduates. In addition, seventy-six per cent of the families rated in the two top occupational classes.

b. Sixty-one per cent of those having phonograph records had in their collections more classical than any other type of records. For the group as a whole this was true of a much smaller percentage.

c. In those homes the radio played music 7.3 hours less per week than the 15.3 hours per week, the average for the group as a whole. Thirty-two and seven-tenths per cent of these families exceeded the percentage of the entire group in listening to the opera, whereas 25.9 per cent more families listened to the symphony and 8.8 per cent fewer families listened to the Bell Telephone Hour

or the Firestone Hour than was true of the over-all average.

d. The children from these homes of the musically educated parents showed a slight but negligible preference for classical music.

The preceding conclusions might be more effectively appreciated in their respective relationship to the study as a whole if they were summarized, briefly, as follows:

There exists a strong tendency for parents to prefer classical music more as they rise in educational and occupational status. In addition, parents who have had considerable formal music education prefer classical music more than those who have had very little or no formal music education. These gains in musical interest with educational and occupational advancement do not carry over to the children's choices in music.

Some interesting information was revealed regarding radio and phonograph music in the home. An increase in the degree of academic and music education as well as an increase in occupational status brings a decrease in radio and phonograph listening along with an increase in preference for classical music. An increase in classical music preference brought a corresponding increase in the number of classical records for those families having phonographs. Those adults with the greatest preference for classical music showed a

corresponding decrease in readiness to sing in a spontaneous, informal manner in the home.

APPENDIX

TABLE XXI

MUSIC EDUCATION OF FAMILY MEMBERS

	Family Member	Instrument Played	Years Instruction	Hours Radio Plays	Hours Phonograph Plays	Per Cent Classical Records in Collection
1	Mother	Piano	10	7	7	40
2	Mother	Piano	12	35	5	23.5
3	Mother	Piano	4	21	10	48
4	Mother	Piano	8	4	..	..
5	Mother	Piano	4	4	7	57
6	Mother	Piano	4	7	21	27
7	Mother	Piano	7	14	3	25
8	Mother	Piano	12	17	10	20
9	Mother	Piano	6	6	14	25
10	Mother	Piano	8	49	13	16
11	Mother	Piano	4	24	1	..
12	Mother	Piano	4	2	0	..
13	Mother	Piano	7	..	21	1
14	Mother	Piano	4	7	3	100
15	Mother	Piano	15	4	2	31
16	Mother	Piano	11	2	2	35
17	Mother	Piano	4	28	14	24

TABLE XXI -- CONTINUED

	Family Member	Instrument Played	Years Instruction	Hours Radio Plays	Hours Phonograph Plays	Per Cent Classical Records in Collection
18	Mother	Piano	6	7	2	..
19	Mother	Piano	12	..	10	..
20	Mother	Piano	8	2	10	No est.
21	Mother	Piano	6	22	14	3
22	Mother	Piano	6	..	10	3
23	Mother	Voice	4	12	7	2
24	Father	Violin	2	..	10	..
25	Father	Trombone	8	..	2	9
26	Father	French horn	6	18	14	7
27	Father	Bass horn	4	..	7	..
28	Father	Saxophone, clarinet	15	..	6	..
29	Father	Voice	15	28	14	7
30	Father	Voice	4	46	2	4
31	Father	Piano	20	21	7	20
32	Father	Piano	4	..	2	..
33	Sister	Violin	5	18	10	1
34	Sister	Piano	4	..	20	..
35	Brother	Piano	8	16	49	13
36	Aunt	Piano	6	30	5	17

SCHEDULE

MUSIC ENVIRONMENT IN THE HOME

I. FAMILY HISTORY:

Child's name_____ Date_____

Date of birth_____ Sex_____

Home address_____ Telephone No._____

Father's name_____ Occupation_____

Mother's name_____ Occupation_____

Mother's occupation before marriage_____

Other children in home:_____

Name	Age	Sex

Others in home_____

Education of father: High school____ College_____

Degrees_____ Major_____

Education of mother: High school____ College_____

Degrees_____ Major_____

II. MUSICAL EDUCATION:

Musical instruction:

Family member	Instrument	Voice	Years of Instruction

Musical organization membership:

Family member	Band	Orchestra	Choir	Solo and type

Do you own any musical instruments?_____

Which ones?_____

Who plays them?_____ How often?_____

Types of music played on these instruments:_____

_____

Does your child have favorites among the instrumental selections he hears played on these instruments?____

_____ What are they?_____

Does your child have any musical instruments of his own?_____ Which ones?_____

Does he play them?_____ How often?_____

III. RADIO:

Number of radios in the home_____ Average number of hours radio plays music weekly_____ Is your child allowed to operate the radio?_____

Favorite musical radio programs:

Subject:_____

Mother:_____

Father:_____

Other children in home:_____

_____

Others in home:_____

Are you in the habit of listening to:
Metropolitan Opera Series on Saturday afternoon_____
Philharmonic Symphony Orchestra on Sunday_____
Firestone Hour, or Bell Telephone Hour_____
Lucky Strike Hit Parade_____
Hill-Billy Hit Parade_____

IV. PHONOGRAPH:

Do you have a phonograph?_____ Number of hours it plays music weekly_____ Is your child allowed to operate the phonograph?_____

Types of records you possess:	Number of records
1. Classical_____	_____
2. Semi-classical_____	_____
3. Modern dance_____	_____
4. Cowboy_____	_____
5. Religious_____	_____
6. Nursery rhymes_____	_____
7. Others_____	_____

Favorite musical phonograph records:

Subject:_____

Mother:_____

Father:_____

Other children in home:_____

_____

Others in the home:_____

V. GENERAL:

On an average, how long will your child listen attentively to music?_____

Will one type of music hold his attention appreciably longer than others?_____

What type?_____

Does your child clap his hands or tap his feet keeping time to music?_____

Does he dance to the music?_____

Does he sing with the music?_____

Do you sing for your child?_____ Do others?_____

What kinds of music are sung to him?_____

How often do you sing for him?_____

Do you sing as you go about your work?_____

VI. ADDITIONAL COMMENTS:

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS:

Aldrich, C. A., and Aldrich, M. M. Babies Are Human Beings. New York: Macmillan Company, 1939.

Bakwin, Ruth, and Bakwin, Harry. Psychological Care During Infancy and Childhood. New York: D. Appleton-Century Company, 1942.

Barbour, Harriot, and Freeman, Warren. How to Teach Children to Know Music. New York: Smith and Durrell Company, 1942.

Boring, E. W., et al. Introduction to Psychology. New York: John Wiley and Company, 1939.

Carroll, Herbert A. Genius in the Making. New York: McGraw-Hill Book Company, 1940.

Garrison, Karl C. The Psychology of Exceptional Children. New York: Ronald Press Company, 1940.

Gesell, Arnold A. The First Five Years of Life. New York: Harper and Brothers, 1940.

Goodenough, Florence L. Developmental Psychology. New York: D. Appleton-Century Company, 1934.

Hollingworth, Leta S. A Handbook of Child Psychology. Edited by Carl Murchison. Worcester, Mass.: Clark University Press, 1931.

Hurlock, Elizabeth B. Child Development. New York: McGraw-Hill Book Company, 1942.

Jensen, Arne S. Psychology of Child Behavior. New York: Prentice-Hall, Inc., 1939.

Landreth, Catherine, and Reed, Katherine. Education of the Young Child. New York: John Wiley and Sons, Inc., 1942.

Leonard, Edith, et al. The Child at Home and at School. New York: American Book Company, 1942.

McKinney, Fred. Psychology of Personal Adjustment. New York: John Wiley and Sons Company, 1941.

McLester, Amelia. The Development of Character Traits in Young Children. New York: Charles Scribner's Sons, 1931.

Mursell, James E. Educational Psychology. New York: W. W. Norton and Company, 1939.

Phillips, Charles. Paderewski, the Story of a Modern Immortal. New York: Macmillan Company, 1934.

Scheinfeld, Amram. You and Heredity. New York: Frederick W. Stokes and Company, 1939.

Seashore, Carl. In Search of Beauty in Music. New York: Ronald Press Company, 1947.

Schaffer, Lawrence F., et al. Psychology. New York: Harper and Brothers, 1946.

Schoen, Max. The Psychology of Music. New York: Ronald Press Company, 1940.

Stoddard, George D., and Wellman, Beth L. Child Psychology. New York: Macmillan Company, 1934.

Thorn, Alice G. Music for Young Children. New York: Charles Scribner's Sons, 1929.

ARTICLES AND BULLETINS:

Bienstock, Sylvia. "A Review of Recent Studies on Musical Attitude," Journal of Educational Psychology, XXXIII (September, 1942), 427-441.

Brown, Andrew W. "The Reliability and Validity of the Seashore Tests of Musical Ability," Journal of Applied Psychology, XII (October, 1928), 468-476.

Doig, Dorothea. "Can Everyone Use Music Tests?" Music Teachers' Journal, XXVIII (February, 1938), 29-30.

Friend, Ruby S. "The Influences of Heredity and Musical Environment on the Score of Kindergarten Children on the Seashore Measures of Musical Abilities," Journal of Applied Psychology, XXIII (June, 1939), 347-358.

Highsmith, J. H., "Selecting Musical Talent," Journal of Applied Psychology, XIII (October, 1929), 486-493.

Hollingworth, Leta S. "Musical Sensitivity of Children Who Test above 135 I. Q.," Journal of Educational Psychology, XVII (February, 1926), 95-109.

Jersild, Arthur T., and Bienstock, Sylvia. The Development of Rhythm in the Young Child. Child Development Monographs, No. 22, 1935.

_____. "The Influence of Training on the Vocal Ability of Three-year-old Children," Child Development, II (July, 1939), 272-290.

_____. "A Study of the Development of Children's Ability to Sing," Journal of Educational Psychology, XXV (November, 1924), 481-503.

Kwalwasser, Jacob. "From the Realm of Guess into the Realm of Certainty," Music Teachers' Journal, February, 1938, pp. 16-17.

Larson, Ruth C. Studies on the Seashore Measures of Musical Talent. University of Iowa Studies, Vol. II, No. 6.

McCarty, Dorothea. "A Study of the Seashore Measures of Musical Talent," Journal of Applied Psychology, XIV (October, 1930), 437-455.

McGinnis, Esther. "Seashore's Measures of Musical Ability Applied to Children of the Preschool Age," American Journal of Psychology, XL (October, 1928), 620-623.

Mursell, James E. "Intelligence and Musicality," Education, LIX (May, 1939), 559.

Ross, Verne. "Relationships between Intelligence, Scholastic Achievement, and Musical Talent," Journal of Juvenile Research, XX (April, 1936), 47-64.

Saetveit, Joseph, et al. The Revision of the Seashore Measures of Musical Talents. University of Iowa Studies, No. 65, 1940.

Seashore, Carl E. The Present Status of Research in the Psychology of Music at the University of Iowa. University of Iowa Studies, June 15, 1928, pp. 3-22.

Shuck, Lenel. "Music Education Comes of Age," Education, LIX (May, 1939), 521-527.

Stanton, Hazel. The Inheritance of Specific Musical Capacities. Bulletin of Eugenics Records Office, No. 22. Washington: Carnegie Institute, 1922.

_____. Musical Capacity Measures of Children Repeated after Musical Training. University of Iowa Studies, No. 42, 1933.

Williams, Harold M. "The Child and Music," Childhood Education, X (February, 1934), 254-256.

Wilson, M. Emmett. "Prognostic Values for Music Success of Several Types of Tests," Music Supervisors' Journal, XVI (February, 1930), 83.

Wolner, Manuse, and Pyle, W. H. "A Study of Pitch Deficient Children," Journal of Educational Psychology, XXIV (November, 1933), 602-608.

UNPUBLISHED MATERIALS:

Tampke, Robert August. "The Function of Music Education in the Organization of Personnality." Unpublished Doctoral Dissertation, Graduate Division, Department of Music, University of Texas, Austin, Texas, 1947.