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ABSTRACT

A FACTOR ANALYSIS OF CLASSICAL AND
POPULAR MUSIC PREFERENCES IN THE
LANSING, MICHIGAN AREA

by Arthur Allan Bartfay

The purpose of this research project was to: (1)
provide information on the variables, among people, which
tend to affect their preferences toward particular kinds
of music, (2) conduct a study which utilized a more
accurate method of gauging music preferences, and (3)
analyze the preference information in ways which would
provide broadcasters more useful guidelines in making
music programming decisions.

The first chapter points out the cultural basis of
musical taste. Previous music preference studies (con-
ducted by F. L. Whan, The J. Walter Thompson Advertising
Agency, and KING Radio) are cited which describe how, and
to what extent, preferences vary among persons of differ-
ent ages, different geographic regions of the nation,
different communities, etc.

These three music preference studies, as well as
the CBS Radio program preference study, were scrutinized
in regard to the manner in which they: (1) collected
their data, and (2) analyzed their data. Since all of
the studies were found "lacking," in terms of providing

the broadcaster with accurate and useful music preference information, we decided to conduct our own music preference study.

In our preliminary study, a correlation analysis of the data indicated that greater accuracy was achieved in a music preference study when the subjects had a chance to actually hear specific selections of music, rather than just read about them.

In our second study (referred to as our final study), we utilized actual selections of music, about 30-seconds in length. A stratified sample--composed of 49 persons of both sexes, different age levels, and possessing different levels of previous music experience--rated 60 selections (30 classical and 30 popular) on a 21 point preference rating scale which ranged in meaning from "terrible" to "terrific."

The preference reactions, of the sample, were subjected to various statistical analyses--the most important being a factor analysis of persons. From this analysis, four typologies emerged: Type A (the hit parade or anti-classical typology) representing the preference patterns of 48% of the Lansing area population age 12 and over; Type B (the classical typology) representing 30% of that population; Type C (the semi-classical typology) representing 19%; and Type D (the quasi-hit parade typology) representing 3%. These four typologies (their patterns

of preference and the characteristics of their members)
were scrutinized in detail, both individually and com-
paratively.  The typological analysis suggested that the
cultural variables of age, formal education, and previous
music background were related to music preferences.  It
also indicated that a liking for classical music was
related to a greater knowledge of formal music terminology.

The 60-selection factor analysis of persons, presented
in this thesis, provides radio music programmers with useful
guidelines--particularly those radio stations which want to:
(1) elevate musical taste, or (2) program classical music.
For popular music stations, this research project suggests
an approach to the measurement of music preferences which:
(1) can provide more accurate and useful kinds of informa-
tion than the methods employed in previous studies, and (2)
can be duplicated by broadcasters in their own markets to
find answers to music programming questions which are of
particular interest to them in their particular competitive
situations.

A FACTOR ANALYSIS OF CLASSICAL AND

POPULAR MUSIC PREFERENCES IN THE

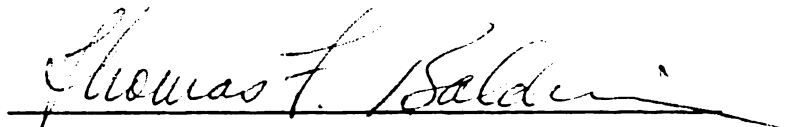LANSING, MICHIGAN AREA


By


Arthur Allan Bartfay


A THESIS


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# ACKNOWLEDGMENTS

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# LIST OF ABBREVIATIONS

Sec.   =   Seconds

High BG =   High Music Background
Med. BG =   Medium Music Background
Low BG  =   Low Music Background

Ad-Col. =   Adult-College
St.-Col.=   Student-College
Ad.-H.S.=   Adult-High School graduate
Ad.-D.O.=   Adult-Drop Out from secondary school
St.-Sec.=   Student-Secondary or Elementary

Sel.   =   Selection
No.    =   Number

Prod. Mom. Corrl.   =   Product Moment Correlation
Stnd. Score         =   Standard Score

Hit or Hit Par.       =   Hit Parade Typology (Type A)
Cl or Clscl           =   Classical Typology  (Type B)
S-Cl or Semi-Clscl =   Semi-Classical Typology (Type C)
Q-Hit or Qsi-Hit Par =  Quasi-Hit Parade Typology (Type D)

Ed.  =   Education
Gds. =   Grades

Nov. =   Novelty
Pop. =   Popular
Soph.=   Sophisticated

CHAPTER I

THE INTRODUCTION

From January to June of 1963, the author in colla-
boration with Dr. Malcolm S. MacLean Jr. (Acting Director
of the Michigan State University Communications Research
Center) conducted research on radio program preferences,
radio listening habits, music preferences, and the fre-
quency of exposure to music.

This thesis is concerned with that part of the data
which deals with music preferences.

## The Problem

Radio programming of the 1960s is far different from
that of the early 1950s. With the growth of television in
the 1950s, music programming has become the dominant
feature of radio programming in the 1960s.

Since music is such an important ingredient in the
programming of modern radio, research into the music pref-
erences of the audience should prove valuable to broad-
casters.

## The Purpose

The purpose of this research project was to: (1)
provide information on the variables, among people, which

1

tend to affect their preferences toward particular kinds of music, (2) conduct a study which utilized a more accurate method of gauging music preferences, and (3) analyze the preference information in ways which would provide broadcasters with more useful guidelines in making music programming decisions.

Because our study (presented in this thesis) collected and analyzed listener reactions toward a large percentage of classical selections, the information presented in this thesis will be of particular interest to those stations which presently program classical music or are considering the possibility of programming classical music. Some of the results, however, will be of interest to stations which program popular music. For those stations, the research might suggest that a modification of the methodology used in this study would bring more fruitful information to them in their particular situations.

### The Basis of Musical "Taste"

Why do people like certain kinds of music and dislike others? Psychologist Paul Farnsworth, in his book The Social Psychology of Music points out that a person's musical preferences do not just "happen"--that "taste" is essentially something which a person learns or acquires from his environment or culture--that biological factors, such as heredity, play an insignificant role in determining musical "taste."

Farnsworth states that while, "It is obvious that the capacities of the biological organism set the general limits within which a man's ears and his muscles react. But that they can affect his taste without the mediation of cultural forces has never been demonstrated." Says Farnsworth, "All the facts so far accumulated by the musicologists and social scientists seem to point . . . toward a *cultural* explanation of taste."[1] (Italics mine)

Farnsworth illustrates the merits of this contention by saying:

> The hypothesis that contemporary taste in music is, at least in large measure, culturally derived, can be demonstrated through the data of anthropology, history, and experimental psychology. It has been shown that the Occidental love for simply rhythms, careful tuning, fixed tonal steps, harmonies, the tonic effect, and the diatonic scale is not shared the world over. . . . The African predilection for complicated rhythmic patterns was so far out of line with the taste and perceptual abilities of many of the early missionaries that they commonly reported the Africans to be arhythmical. The Chinese often appear oblivious to mistunings; they love music which has little harmony in the Western sense of the word. Yet Orientals can learn to love Occidental music and, indeed, with continued residence in America come to appreciate Western musical principles, and gradually to develop facility in the perception of small auditory differences. Conversely, the people of the Western world often learn to love alien music forms and to master more complicated rhythmic patterns.[2]

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[1]Paul R. Farnsworth, The Social Psychology of Music (New York: Holt, Rinehart, and Winston, 1958), p. 119.

[2]Ibid., pp. 119-120.

## Previous Music Preference Studies

In the late 1950s, three notable music preference studies were conducted which indicated some of the cultural variables, among people, which affect music preferences. These studies were: the F. L. Whan study,[3] the J. Walter Thompson study,[4] and the KING Radio study.[5]

Both the Whan study (supervised by Professor F. L. Whan of Kansas State College in 1957) and the Thompson study (conducted by the J. Walter Thompson Advertising Agency in 1958) utilized somewhat similar methodologies. The subjects in their studies were given a list which contained a brief description of 14 different kinds of music. Each list contained tersely worded "labels" for each of the 14 kinds of music, together with examples (either performers or song titles) or some other type of illustrative description.[6]

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[3]F. L. Whan, "Attitude of Iowans Towards Radio Music," Journal of Broadcasting, 2:1 (Winter 1957-1958), pp. 44-54.

[4]"Radio--An Individual's Medium," Media/Scope, IV (June, 1960), pp. 86, and 90-91. Additional information on the study conducted by the J. Walter Thompson Advertising Agency was obtained in a letter from Elin Ballantyne, Librarian of the J. Walter Thompson Agency in Chicago on February 24, 1964.

[5]"At Last a Reliable Music Survey," Broadcasting, 63:12 (September 12, 1959), pp. 33-34, and 38.

[6]See Appendix I for the 14 categories of music, and their descriptions, used in both the Whan and Thompson studies.

In the Whan study, the participants were asked to pick out the <u>four</u> categories of music they liked best on the radio. In the Thompson study the subjects were asked to pick out the <u>three</u> best liked music categories.

In addition, in the Whan study, the participants were asked which, if any, of the categories of music were disliked so much that when it was heard, they would either turn off the radio or re-tune the set.

The sample of persons interviewed in the two studies was quite different. The Whan study interviewed 9,112 adults and 753 high school students in the State of Iowa. The Thompson study queried almost 3,000 housewives, from various parts of the nation, who were members of the Agency's "Family Advisory Staff."

Both studies analyzed the results in terms of the age and education of the respondents. In addition, the Whan study compared the preference responses in terms of urban and farm residence, as well as the sex of the respondent. The Thompson study compared preferences in terms of the size of the market, the geographic region of the nation, and the social class of the respondent.

The KING Radio study (1959) utilized a different methodology. It was a "mail poll" conducted by a 50,000 watt radio station, KING in Seattle, Washington. Briefly: the station presented various kinds of music "on the air" and asked its listeners to state their preferences toward

the different selections. Participants in the survey were asked to rate each selection they heard on a five point rating scale which ranged in meaning from "strongly like" to "strongly dislike."

Five basic categories of music were studied: (1) Current hit songs with "raucous" rock-and-roll or "screaming" rhythm-and-blues lyrics, (2) Current hits excluding "raucous" rock-and-roll, (3) Familiar standards arranged in such a way that the melody line was easy to follow, (4) Unfamiliar tunes plus familiar tunes with arrangements that made them difficult to recognize, and (5) Gold records--all million sellers excluding the "raucous" rock-and-roll type.[7]

Each day, for a two week period, the station presented five pre-taped programs at various times of the day. Portions of ten musical selections (two selections per category) were used on each seven minute program. Each program contained different selections which were picked by three members of the program department. The order in which the five categories were presented on the programs was changed around to avoid an "ordering" bias. The same announcer was used to explain the rules of the survey to the audience. The selections were played without identification.

Heavy on-the-air promotion, plus other advertising, were used to draw the public's attention to the programs

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[7]See Appendix II for examples of the selections used in the KING study for each of the five categories of music.

and the survey. A music survey questionnaire was sent on a random basis to every third home in the 15 county coverage area of the station. Questionnaires were sent to those additional persons who requested them, but their answers were not tabulated.

Of the 100,000 questionnaires which were sent out, some 9,250 were returned, properly filled out, and readable, so that they could be analyzed. Most of the questionnaires were mailed in by women or girls. There were 6,402 usable questionnaires received from females and 2,848 from males.

The preferences were compared according to: (1) the age of the participant, (2) the sex of the participant, and (3) the time of day in which the program was broadcast.

## "Age" and Music Preferences

Of the variables which they analyzed, all three studies (Whan, Thompson, and KING) found the variable of "age" to be the most significant in affecting music preference.

All three studies agreed that the categories of "Current Popular Music" and "Rock-and-Roll" (described slightly differently in the KING study) were best liked by the youngest age group and were substantially less liked by the older age groups (see Table 1).

The Whan and Thompson studies both agreed that five categories of music were "young" kinds of music. That is, in both of these studies these five categories were better

TABLE 1.--Age and music preferences (the Whan, Thompson, and KING studies).

| Categories | Age Groups (in per cent) | | | | |
|---|---|---|---|---|---|

"Young" persons liked best

Whan: Percentage of each female age group naming it one of the four best liked music categories.

| | 13-18 | 19-30 | 31-45 | 46-60 | Over 60 |
|---|---|---|---|---|---|
| Current Popular | 90 | 68 | 59 | 41 | 26 |
| Rock-and-Roll | 78 | 35 | 22 | 12 | 5 |
| Showtunes | 37 | 35 | 29 | 22 | 13 |
| Jazz | 36 | 26 | 16 | 8 | 4 |
| Latin-American | 14 | 9 | 7 | 4 | 2 |

Thompson: Percentage of each female age group naming it one of the three best liked music categories.

| | Under 35 | 35-54 | 55 or Over |
|---|---|---|---|
| Current Popular | 56 | 41 | 20 |
| Showtunes | 43 | 33 | 26 |
| Rock-and-Roll | 16 | 11 | 3 |
| Jazz | 11 | 6 | 1 |
| Latin-American | 8 | 6 | 1 |

KING: Percentage of selections, in each category, that were scored by each age group as "strongly like" or "like."

| | 12-16 | 17-21 | 22-39 | 40+ |
|---|---|---|---|---|
| Raucous Rock-and-Roll | 74 | 45 | 19 | 19 |
| Non-Raucous Hits | 83 | 67 | 53 | 48 |

"Old" persons liked best

Whan: Percentage of each female age group naming it one of the four best liked categories.

| | 13-18 | 19-30 | 31-45 | 46-60 | Over 60 |
|---|---|---|---|---|---|
| Waltzes | 32 | 58 | 61 | 63 | 54 |
| Hymns | 21 | 22 | 33 | 44 | 53 |
| Marching Band | 9 | 20 | 28 | 37 | 45 |
| Barbershop | 3 | 13 | 17 | 23 | 26 |
| Hawaiian | 13 | 12 | 18 | 23 | 21 |
| Concert | 10 | 13 | 15 | 17 | 18 |
| Classical | 9 | 18 | 18 | 18 | 18 |

TABLE 1.--Continued

| Categories | Age Groups (in per cent) | | |
|---|---|---|---|

Thompson: Percentage of each female age group naming it one of the three best liked music categories.

| | Under 35 | 35-54 | 55 or Over |
|---|---|---|---|
| Waltzes | 49 | 58 | 61 |
| Hymns | 22 | 26 | 41 |
| Marching Band | 10 | 13 | 28 |
| Concert | 22 | 23 | 24 |
| Classical | 13 | 17 | 24 |
| Hawaiian | 7 | 12 | 17 |
| Barbershop | 5 | 7 | 12 |

KING: Percentage of selections, in each category, that were scored by each age group as "strongly like" or "like."

| | 12-16 | 17-21 | 22-39 | 40+ |
|---|---|---|---|---|
| Gold Records | 58 | 74 | 81 | 75 |
| Standards | 37 | 64 | 77 | 63 |
| Unfamiliar Songs | 16 | 27 | 35 | 22 |

Categories receiving "conflicting" or "mixed" results from the "age" groups in the Whan and Thompson studies.

Whan: Percentage of each female age group naming it one of the four best liked music categories.

| | 13-18 | 19-30 | 31-45 | 46-60 | Over 60 |
|---|---|---|---|---|---|
| Old Familiar Songs | 18 | 29 | 37 | 48 | 53 |
| Country | 27 | 35 | 32 | 29 | 22 |

Thompson: Percentage of each female age group naming it one of the three best liked music categories.

| | Under 35 | 35-54 | 55 or Over |
|---|---|---|---|
| Old Familiar Songs | 28 | 32 | 28 |
| Country | 14 | 11 | 12 |

liked by the younger female age groups, than the older female age groups. These five "young" categories (described in Table 1) were: Current Popular Music, Rock-and-Roll, Showtunes, Jazz, and Latin-American Music.

The Whan and Thompson studies also agreed that seven of the 14 music categories were "old" kinds of music. That is, in general, these categories were better liked by persons in the older female age groups. The seven "old" categories (described in Table 1) were: Waltzes, Hymns, Marching Band, Barbershop, Hawaiian, Concert, and Classical.

In both the Whan and Thompson studies, four categories of music (Hymns, Marching Band, Barbership, and Concert) were rated as top favorites by a progressively higher percentage of persons in the "older" age groups. In the Thompson study, this was also true of the three other "old" categories given on Table 1 (Waltzes, Classical, and Hawaiian). While this did not occur in the Whan study, nonetheless, these three categories had a higher percentage of acceptance by the oldest group, when compared to the youngest group.

In the KING study (which used different categories than the Whan and Thompson studies), three of their five categories were "old." That is, the oldest age group liked these three categories better than the youngest age group.

While the Whan and Thompson studies agreed that five
of their categories were "young" kinds of music and seven
of their categories were "old" kinds of music, two of their
14 categories did not fit into either pattern.

The two studies had "conflicting" results with regard
to the category of "Old Familiar Songs." In the Whan study,
the percentage of persons naming it a favorite increased
with each "older" age group. In the Thompson study, all
the age groups tended to rate it similarly, with the middle
age group rating it slightly higher.

In both the Whan and Thompson studies, a preference
for "Country Music" did not appear to be related to the
variable of "age."

In general, the three studies (Whan, Thompson, and
KING) indicated wide preference differences between the
younger and older age groups. "Younger" persons were more
prone, than "older" persons, to enjoy: Current Popular
Music, Rock-and-Roll, Showtunes, Jazz, and Latin-American
Music. On the other hand (the Whan and Thompson studies
agree), "older" persons were more prone, than "younger"
persons to like: Hymns, Marching Band, Barbership, Concert,
and Waltz music.

The Thompson study indicated that "older" persons
tend to enjoy recalling the musical past with "Old Familiar
Songs." The KING study also suggested the importance of
this nostalgic tendency on the part of older persons. This
is shown by the high acceptance of two categories ("Gold

Records" and "Standards") by the "older" age groups.
These two categories were the best liked categories of
the two oldest age groups in the KING study.

In addition to finding out the kinds of music that
certain age groups liked best, the Whan and KING studies
produced data on the kinds of music that were disliked.

Whan found that adults were more "tolerant" than
teenagers concerning the kind of music presented on radio.
Twenty-nine per cent of the adult women and 33% of the
adult men, in the Whan sample, said there was not one kind
of music they disliked so much that they would re-tune the
radio. However, among the teenagers, only six per cent of
the boys and nine per cent of the girls indicated this
kind of "tolerance." According to Whan, "The average adult
questioned named only *one* type of program as disliked so
much that it would be tuned out. However, teen-aged high
school students average approximately three and a half
program types each."[8]

Teenage girls, in the Whan sample, most frequently
mentioned "Classical Music" and "Concert Music" as the
categories of music they disliked; 58% mentioned "Classical
Music" and 48% mentioned "Concert Music."

Adult women, in the Whan sample, most frequently
mentioned "Rock-and-Roll" and "Classical Music" as the

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[8]Whan, op. cit., p. 45.

categories of music they would tune away from on the radio; 26% mentioned "Rock-and-Roll" and 18% mentioned "Classical Music."

In the KING study, the two oldest age groups gave the most negative reaction to the categories of "Raucous Rock-and-Roll" and "Unfamiliar Songs." Among the "Raucous Rock-and-Roll" selections, 63% of them were "strongly disliked" or "disliked" by persons in the oldest age group (age 40 or over), and 66% were similarly rated by persons age 22-39. Of the selections in the "Unfamiliar Songs" category, 47% received such strong reactions from persons in the oldest age group (age 40 or over), and 33% were similarly rated by persons age 22-39.

On the other hand, in the KING study, the youngest age group (age 12-16) gave its strongest negative reaction to "Unfamiliar Songs" and "Standards." Among the selections in the "Unfamiliar Songs" category, 58% were "strongly disliked" or "disliked." Of the selections in the "Standards" category, 32% received similar negative reaction from persons in the youngest age group.

Thus, both the Whan and KING studies indicated a strong negative reaction to "Rock-and-Roll" on the part of a large percentage of adults. In addition, the Whan study found a sizeable rejection of "Classical Music" on the part of teenagers and adults--in particular, teenagers.

"Formal Education" and Music Preferences

Both the Whan and Thompson studies compared the preferences of persons according to the amount of formal education they had received. A number of significant differences emerged from these comparisons (see Table 2).

Four categories were found to be better liked by those with more formal education ("college" women). The categories were: "Showtunes," "Classical Music," "Concert Music," and "Jazz."

Six categories were found to be better liked by those with the least amount of formal education ("grade school" women). The categories were: "Old Familiar Songs," "Hymns," "Country Music," "Marching Band," "Hawaiian," and "Barbershop."

In both studies, two categories ("Waltzes" and "Current Popular Music") were found to be better liked by persons in the "middle-education" group (those women with high school educations who had not gone on to college).

The Whan and Thompson studies had conflicting results concerning the remaining two categories ("Rock-and-Roll" and "Latin-American Music." As shown in Table 2, these two categories were better liked by one educational group in the Whan study and another educational group in the Thompson study.

TABLE 2.--Education and music preferences (the Whan and Thompson studies).

| Categories | Amount of Formal Education (in %) | | |
|---|---|---|---|
| | College | High School | Grade School |

**"College" women liked best**

Whan: Percentage of each female education group naming it one of the _four_ best liked categories.

| | College | High School | Grade School |
|---|---|---|---|
| Showtunes | 40 | 27 | 12 |
| Classical | 36 | 16 | 10 |
| Concert | 34 | 12 | 10 |
| Jazz | 17 | 16 | 7 |

Thompson: Percentage of each female education group naming it one of the _three_ best liked categories.

| | College | High School | Grade School |
|---|---|---|---|
| Showtunes | 43 | 31 | 17 |
| Concert | 38 | 18 | 8 |
| Classical | 31 | 13 | 9 |
| Jazz | 7 | 5 | 4 |

**"Grade School" women liked best**

Whan: Percentage of each female education group naming it one of the _four_ best liked categories.

| | College | High School | Grade School |
|---|---|---|---|
| Old Familiar Songs | 33 | 40 | 50 |
| Hymns | 28 | 35 | 49 |
| Country | 12 | 32 | 39 |
| Marching Band | 30 | 29 | 38 |
| Hawaiian | 10 | 18 | 26 |
| Barbershop | 16 | 19 | 22 |

Thompson: Percentage of each female education group naming it one of the _three_ best liked categories.

| | College | High School | Grade School |
|---|---|---|---|
| Hymns | 23 | 29 | 45 |
| Old Familiar | 30 | 30 | 33 |
| Country | 5 | 14 | 22 |
| Hawaiian | 8 | 13 | 21 |
| Marching Band | 16 | 16 | 18 |
| Barbershop | 6 | 8 | 11 |

TABLE 2.--Continued

| Categories | Amount of Formal Education (in %) | | |
|---|---|---|---|
| | College | High School | Grade School |
| "High School" women liked best | | | |
| Whan: Percentage of each female education group naming it one of the four best liked categories. | | | |
| Waltzes | 61 | 62 | 56 |
| Current Popular | 52 | 57 | 36 |
| Thompson: Percentage of each female education group naming it one of the three best liked categories. | | | |
| Waltzes | 51 | 58 | 55 |
| Current Popular | 31 | 43 | 34 |
| Categories receiving "conflicting results" in the two studies | | | |
| Whan: Percentage of each female education group naming it one of the four best liked categories. | | | |
| Rock-and-Roll | 12 | 23 | 17 |
| Latin-American | 8 | 6 | 2 |
| Thompson: Percentage of each female education group naming it one of the three best liked categories. | | | |
| Rock-and-Roll | 4 | 12 | 13 |
| Latin-American | 4 | 6 | 5 |

"Social Class" and Music Preferences

The Thompson study created three categories of "social classes" (upper-middle, lower-middle, and lower) which were based on certain characteristics such as occupation, income, formal education, and organization membership. A comparison

of the preferences produced some striking differences--
particularly in regard to seven categories.

Three categories of music were liked by a much
larger percentage of "upper-middle" class persons when
compared to "lower" class persons. "Concert Music" was
picked as a top favorite by 54% of the "upper" group and
only 9% of the "lower" group. "Showtunes" were a favorite
of 54% of the "upper" group and only 18% of the "lower"
group. "Classical Music" was enjoyed by 42% of the "upper"
group and only 9% of the "lower" group.

On the other hand, there were four categories of
music that the "lower" class persons tended to like quite
a bit more than the "upper-middle" class persons. These
categories were: "Hymns" (liked by 39% of the "lower"
and 14% of the "upper"), "Country Music" (liked by 22%
of the "lower" and 3% of the "upper"), "Current Popular
Music" (liked by 45% of the "lower" and 27% of the "upper"),
and "Rock-and-Roll" (liked by 15% of the "lower" and 3% of
the "upper").

## "Community Size" and Music Preferences

The Whan study found only a few, rather minor, pref-
erence differences between persons living on farms and
those living in urban areas. The Thompson study found only
a few, rather minor, preference differences between persons
living in communities with populations 25,000 or less and
those living in communities with populations of 450,000 or
more.

Three music categories ("Country Music," "Showtunes," and "Hymns") produced the most noticeable preference differences in the two studies when the preferences of urban and farm women were compared (in the Whan study) and the preferences of large community and small community women were compared (in the Thompson study).

"Country Music" was better liked by farm women and housewives living in small communities, than by urban women and housewives living in large communities. In the Whan study, "Country Music" was selected as one of the four best liked music categories by 39% of the farm women and only 24% of the urban women. In the Thompson study, "Country Music" was picked as one of the three best liked categories by 19% of the women living in the small communities and 6% of the women living in the large communities.

"Hymns" were also better liked by farm women and housewives living in small communities, than by urban women and housewives living in large communities. In the Whan study, "Hymns" were selected as a top favorite by 42% of the farm women and 30% of the urban women. In the Thompson study, "Hymns" were picked as a favorite by 43% of the housewives living in small communities and only 16% of those living in large communities.

"Showtunes" were better liked by the ladies living in the urban areas and the large communities. Whan found 32% of the urban women choosing it as one of their best liked categories, while only 19% of the farm women did

likewise. Thompson found 46% of the ladies in larger communities picking "Showtunes" as a top favorite, while only 20% of the ladies in the small communities made a similar choice.

## "Geographic Regions of the Nation" and Music Preferences

The Thompson study was the only one of the three studies to be a national survey and thus the only one to compare the preference differences between the four major geographic regions of the United States (the South, West, Northeast, and North-central regions).

In general, the best liked categories of music were quite similar in all regions. In all four regions, the "Waltzes" category was the top favorite. "Current Popular Music" and "Old Familiar Songs" were among the top four categories in all four regions. The "Showtunes" category was one of the top four in all areas except the South.

The most striking preference differences occurred over two music categories ("Showtunes" and "Hymns") by persons living in the South and the Northeast.

"Showtunes" were a favorite of 49% of the persons living in the Northeast (the second most popular category in that geographic area). However, only 19% of those living in the South called it a favorite (the fifth most popular category in that geographic area).

On the other hand, the "Hymns" category was highly rated by 47% of the Southerners (the second most popular

category of the Southerners). Only 14% of the North-Easterners gave the "Hymns" category a similar rating and it ranked seventh among the 14 best liked categories of the North-Easterners.

## "Sex" and Music Preferences

The KING study found no significant preference differences which could be attributable to the sex of the participants in their study.

The Whan study found great similarity in the percentage of males and females that named various kinds of music as veing liked or disliked. The widest difference, among adults in the Whan study, was over "Country Music." While 41% of the men called it a top favorite, only 30% of the women did so.

Among teenagers, in the Whan study, the widest differences occurred over "Jazz" and "Showtunes." "Jazz" was better liked by the boys (52% of the boys and 36% of the girls picked it as a top favorite). "Showtunes" were better liked by the girls (37% of the girls and 25% of the boys picked it as one of the four best liked categories).

## Whan, Thompson, and KING: The Best Liked and Least Liked Music Categories

Of the 14 categories, used in the Whan and Thompson studies, "Waltzes" were most frequently mentioned as a top favorite category by the adults. "Latin-American Music" was least often mentioned as a top favorite by the adults

in the two studies. In the KING study, "Gold Records" was the best liked category by the three oldest age groups (17-21, 22-39, and 40 or above).

The Whan study found "Current Popular Music" and "Rock-and-Roll" to be the two best liked categories by teenagers. The KING study found "Non-Raucous Hits" and "Raucous Rock-and-Roll" to be the two best liked categories of the youngest age group (12-16).

Adults in the Whan study gave their strongest negative reactions to "Rock-and-Roll" and "Classical Music." The three oldest age groups in the KING study gave their strongest negative reactions to the categories of "Raucous Rock-and-Roll" and "Unfamiliar Songs."

Teenagers in the Whan study were particularly emphatic in their rejection of "Classical Music" and "Concert Music." In the KING study, the youngest age group (12-16) reacted most unfavorably toward the categories of "Unfamiliar Songs" and "Standards."

The CBS Study of Program Preferences

In 1962 the CBS Network commissioned the Motivation Analysis firm to conduct a study of radio "program" preferences.[9]

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[9]"What's Radio's Success Secret?" Broadcasting, 63:12 (September 17, 1962), pp. 33-36; and "Who Were Those Listeners I Saw You With?" (A Researched Prescription for Audience Leadership). An address before the Ninth Annual CBS Radio Affiliates Association Convention, New York City, September 12, 1962, by Fred Ruegg, Vice President, Station Administration, CBS Radio, p. 48.

The study was not "primarily" concerned with music preferences, nor with the "cultural variables" among people which might affect those preferences. However, some of their findings should be of interest to music preference researchers and to music programmers who are charged with the responsibility of selecting music which will please a significant segment of the audience.

The study was conducted in seven large cities (all outside the "South") in which CBS had owned-and-operated radio stations. The cities were: New York, Chicago, Boston, Philadelphia, St. Louis, San Francisco, and Los Angeles.

The study had two phases. The first phase involved a telephone survey of 7,000 persons age 20 and over (half of them men and half of them women) who listened to the radio at least 15 minutes a day. A variety of information was collected.

The major finding of the telephone phase was that there were five basic types of radio listeners in terms of "why" they listened to the radio. Three of these "types" listened primarily for "music" and two listened for "non-music" radio programming:

1. Sixteen per cent were "Classical and Semi-Classical Music" listeners. Their prime interest in radio was to hear this kind of music. However, the definitions of this kind of music varied considerably from person to

person. Some considered "Tea for Two" by Mantovani's Orchestra to fit this category of music.

2. Forty per cent were "Popular Music" listeners. Again, definitions of this kind of music were quite different from person to person with some indicating that rock-and-roll was a part of their interest in "Popular Music."

3. Seven per cent of this adult sample (age 20 and over) were "Rock-and-Roll Music" listeners. Their chief reason for listening to the radio was to hear this kind of music.

4. Twenty-two per cent were "Talk-Music" listeners. They had a great deal of interest in news, interviews, discussions, sports programs, etc. They did not tune to radio "primarily" to hear any kind of music and had a minimum-to-moderate interest in radio music.

5. Twelve per cent were "News Only" listeners. Their only reason for listening to the radio was to hear the news.

About 3% of the interviewees has "miscellaneous reasons" for listening to the radio which the researchers found difficult to categorize--and which varied from city to city. This group included an interest in such things as foreign language programming.

The second phase of the CBS study involved personal interviews (about 90 minutes per interview) with the 1,135 persons who had identified themselves as "Talk-Music,"

"Classical and Semi-Classical," and "Popular Music"
listeners.  In addition, some of the interviewees were
persons who had expressed a listening preference for the
local CBS radio station.

One of the findings of the interviews was an unex-
pected, strong, preference for instrumental music, rather
than vocal music, by a significant segment of the inter-
viewees.  In particular, the "Classical and Semi-Classical"
listeners indicated a strong interest in instrumental music.

TABLE 3.--The CBS study--musical arrangements preferred by
the three major types of radio listeners.

| Musical Arrangements | Talk-Music | Classical Semi-Classical (in per cent) | Popular |
|---|---|---|---|
| Instrumental | 45 | 70 | 39 |
| Vocal | 32 | 14 | 40 |
| No Choice | 23 | 16 | 21 |

## Summary of Previous Studies

As Dr. Paul Farnsworth has stated, "All the facts
so far accumulated by the musicologists and social scientists
seem to point . . . toward a *cultural* explanation of taste."[10]
(*Italics* mine)  Thus music preference researchers, in an
effort to find out what music is liked and why it is liked,

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[10]Farnsworth, op. cit., p. 119.

have tended to minimize the biological differences between persons and have concentrated their search on "cultural" or "environmental" factors.

Why do people like the kind of music they do? The reasons are probably as varied as the individual psychological make-up of a human being. The reasons why people like or dislike various things are complex and varied. It is a result of their individual capabilities and their individual experiences in life.

Nonetheless, researchers have been able to note certain tendencies toward particular music preferences on the part of various "categories" of people.

All three of the music preference studies, we have discussed in this chapter, indicate that the variable of age is the most significant determinant of music preferences--of the variables they considered.

The Whan and Thompson studies (which considered the variable of formal education) found this to be a most important determinant of music preferences.

The Thompson study (which created a social class variable based on occupation, income, formal education, etc.) noted that this variable, too, produced significant differences in preferences.

When the Whan study compared the preferences of women living on farms and in urban areas, and when the Thompson study compared the preferences of housewives living in small and large communities, the two studies found

similarities--for the most part--although some minor dif-
ferences resulted over the liking of certain kinds of music.

The only study to compare the preferences of persons
in the different geographic regions of the nation (the
Thompson study) found general agreement to be the rule--
although two striking preference differences were noted
between Southerners and North-Easterners.

Regarding the variable of sex, the KING study found
no significant differences in preference which could be
attributed to it.  The Whan study found only a few minor
differences.

## The Accuracy and Usefulness of the
## Previous Studies

The Whan and Thompson studies appear to have utilized
fairly "reliable" methods--in terms of producing similar,
and somewhat surprising, results.  For example, both studies
found great popularity for the category "Waltzes and Sweet
Music," as played by Guy Lombardo, Wayne King, and Lawrence
Welk."  In the 1958 Thompson study of housewives, 49% of
those under age 35, 58% of those age 35-54, and 61% of
those age 55 and over, considered the category to be one of
their best liked.  (It was the most popular category of
music for the two oldest age groups in the Thompson study
and the second most popular category in the youngest age
group.)  Similarly in the 1957 Whan study, it was the best
liked category of both the adult men and the adult women
(57% of the men and 60% of the women in the Whan study chose

it as one of their best liked categories). Even among teen-agers in the Whan study, 30% of the boys and 32% of the girls chose it as one of their best liked categories.

While the public's reaction toward certain kinds of music may well vary over the years (compare, for example, the "popular hits" of the 1920s, the 1940s, and the 1960s), it does not seem sufficient to say that the results of these two surveys (completed within the past decade) are simply "outdated."

It appears that the methodology employed in the two studies failed to lend itself to getting accurate answers from the participants in their surveys. Further, in our judgment, the data collected in these studies are not as useful to the radio programmer, as they might be.

The basic question that a music programmer wants answered is this: when I play a specific selection of music, will it be pleasing or will it alienate a signifi-cant segment of the audience?

At first glance, it would appear that getting re-actions toward written descriptive categories of music (as was done in the Whan and Thompson studies) would at least give the broadcaster some general idea of how people feel toward such music. But does it?

The results of a research study in Denmark suggest that many persons tend to react for or against a descriptive "category" of music, while in fact, the music itself might engender quite a different reaction. In that study, the

arrangers of a Danish radio program of "serious" music
changed the title of their series from "Classical Music"
to "Popular Music." Results of a survey indicated that
twice as many persons listened to the program which was
called "Popular Music," as listened to the same program
which was billed as "Classical Music."[11]

Nonetheless, even if we should assume that the re-
actions that people give toward "categories" of music are
an accurate reflection of their likes and dislikes, the
question remains: How useful is this type of category
information to the music programmer? For example, can
the programmer really assume (as the Whan and Thompson
studies did) that people's reactions toward different kinds
of "jazz" (Dixieland, bop, progressive, and swing) are
really quite similar? Or might he wonder whether the re-
action of many people to these different kinds of jazz
might be very different? It seems clear that music prefer-
ence studies, which get people's reactions to descriptive
categories of music, do not answer possible significant
questions about the differing reactions that numerous people
may have toward the many different kinds of music within a
particular "category." Some of the differences within a
particular music category might be very subtle--discernible
to the trained musician. Other significant differences may

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[11]Ibid., p. 11. For a more detailed explanation of
the Denmark study, see T. Geiger, "A Radio Test of Musical
Taste," Public Opinion Quarterly, 14 (1950),pp. 453-460.

be more obvious to the perceptive "fan" of a particular field of music--or to the experienced and perceptive music programmer.

Then too, another technique employed in the Whan and Thompson studies limited their usefulness to music programmers. The Thompson study asked participants to pick the three best liked categories. The Whan study asked subjects to choose the four best liked categories. What guidelines, then, did the two studies suggest in the radio music programming of the category least often picked as a top favorite in both studies (Latin-American Music)? In terms of programming guidelines, would it have been better to have asked the participants to pick just one category? Two? Five? Or, would more meaningful data have been collected by asking the subjects to "rank" the 14 categories, one through fourteen, in the order of their likes and dislikes?

Regarding the CBS study, it did not have as its primary objective the acquisition of information on music preferences. While the methods used in the CBS study may have been adequate to get the kinds of information they wanted, it would seem that the "loose" and "fuzzy" definitions of their music "categories" were not precise enough to be useful to the music preference researcher or music programmer. As you will recall, some people defined "Classical and/or Semi-Classical Music" as including such selections as "Tea for Two" by Mantovani's Orchestra. This underlines the

fact that music preference research studies which utilize descriptive categories of music in collecting their data are filled with ambiguity. The categories are often ambiguous to the participants in such a study, as well as to the music programmer who attempts to interpret the results of such a study.

The CBS study's assertion that a large segment of listeners prefer the "category" of instrumental music, rather than vocal music, is a subtlety within music that was not raised, nor investigated in any of the other studies. The assertion is of such basic significance to the music programmer that it bears further investigation.

The KING Radio music preference study utilized quite a different methodology from the previously discussed studies. It too, produced some surprising results regarding two of its five categories of music: "Raucous Rock-and-Roll" and "Gold Records." Surprisingly, "Raucous Rock-and-Roll" engendered relatively little enthusiasm. Even among the youngest age group (12-16) it was only the second best liked category. Among the five categories used in the study, it was fourth in popularity in the 17-21 age group and fifth among the two oldest age groups. On the other hand, "Gold Records" received very strong support from all age groups. "Gold Records" was the best liked category of music in the three oldest age groups (40 and over, 22-39, and 17-21) and was the third best liked category of the youngest age group (12-16).

The KING methodology was subject to two kinds of "bias" which might have impaired its accuracy. First, it was a "mail poll." Thus, despite the large response to the survey, an element of bias could have crept into the study because those persons who responded to the survey might have been quite different in their preferences, than those who chose not to take part. Then too, possible bias was caused by the fact that the study was openly conducted by a radio station which had played a certain kind of music on its kilocycles and had built up a certain type of image in this respect. To some degree, participation in the survey was doubtlessly affected by this image that the station had created.

As will be indicated later in this thesis, the KING technique of utilizing brief, actual, selections of music (about 30 seconds in length) was a good method of collecting the data. However, the method they used to analyze their data limited the scope of their study, and therefore, limited its potential usefulness in providing music programming guidelines.

The KING study limited its scope to getting the reactions of four major age groups to five basic categories of "popular" music. The categories were based on three major criteria: (1) whether the arrangement of a particular selection was "Raucous Rock-and-Roll," (2) whether the melody was "familiar" with an arrangement which made the melody easy to recognize, and to some extent (3) record sales.

The scope of the KING study did not include audience re-actions toward such basic kinds of music as: Classical music, Country music, Showtunes, and others.

Also, the KING researchers limited the scope of their study by analyzing their data (the responses of the participants), solely in terms of <u>five categories of music</u> <u>which the researchers pre-determined</u> were likely to get different reactions from different listeners. If they had analyzed the data in terms of the reactions toward <u>the</u> <u>individual selections of music</u>, they might have gotten a better insight into the characteristics in the music that the listeners themselves considered to be the most signifi-cant. This type of analysis--probing for more subtle dif-ferences--might have produced more useful kinds of music programming guidelines.

Further, by limiting their analysis to these five pre-determined categories of selections, the KING researchers assumed that the specific selections of music <u>within</u> a particular category were similar to each other in terms of audience appeal. For example, in their category "Non-Raucous Hits," they assumed that reactions would be similar toward the Kingston Trio singing "MTA," Johnny Mathis sing-ing "Small World," and whatever instrumental they might have included in the category.

In addition, they failed to consider the question of whether some selections in one of their five pre-determined categories might be more similar (in appeal) to selections

in another category, than to the selections into which a particular selection had been categorized. For example, they did not consider the extent to which a similar or dissimilar appeal was engendered by Pat Boone singing "Tenderly" (categorized as a familiar "Standard" in the KING study) and by Pat Boone singing "Twixt Twelve and Twenty" (categorized as a "Non-Raucous Hit" in the KING study).

Such basic musical characteristics as "instrumentals versus vocals" (which the CBS study suggests is very important) and "tempo" (which other research suggests is significant)[12] were ignored in the KING study which dealt with pre-determined categories.

With the wide array of music available to the listener today, in many markets--and with the radio stations in those markets trying to capture the attention of a significant segment of the audience--it would appear to be useful for music research to probe for the more subtle differences in music preferences which may attract or alienate a sizeable segment of the audience. Music preference research must be

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[12]Ibid., p. 9. Quoting Farnsworth, "Tempo preferences have been found to vary considerably from person to person. . . . Foley found that girls studying trades like dressmaking in which activity proceeds at a slow pace were prone to favor andante tempos; those working with power machines, a slow allegro. Typists, with their faster working speeds, tended to prefer a fast allegro bordering on presto. Their work speeds, it seems clear, so conditioned these girls that they came to prefer these rates even outside the shop and the office." For a more detailed discussion of Foley's study see: J. P. Foley Jr., "The Occupational Conditioning of Preferential Auditory Tempo," J. Soc. Psychol., 12 (1940), pp. 121-129.

sensitive to those differences in music which the audience perceives to be significant. By collecting data of listener reactions toward specific selections of music and analyzing the reactions toward those specific selections, music preference research can come closer to finding out what these significant differences are--closer to providing the music programmer with more useful guidelines in the structuring of music programming.

## A Preview of Later Chapters

The basic objective of this research project was to conduct an up-to-date music preference study which collected and analyzed audience reactions toward a wide range of popular and classical music--in a more accurate and useful manner.

For reasons previously discussed, it seemed to us that a more accurate and more useful data for the music programmer would be obtained from a study which utilized specific selections of music (rather than categories of music) and analyzed the reactions of the subjects toward each of those selections (rather than pre-determined categories of selections).

Further, we hypothesized that since music is "aural communication" rather than verbal--that a truer indication of a subject's likes and dislikes would be obtained if the subjects actually heard the selections, rather than just read about them. For as David Berlo has written in The

Process of Communication, "Everyone does not have the same meaning for a word."[13] He argues that, "People can have similar meanings only to the extent that they have had similar experiences, or can anticipate similar experiences."[14]

Chapter II of this thesis contains the preliminary study which verified the hypothesis that greater accuracy is achieved in a music preference study when the subjects are given the opportunity to actually hear specific selections of music, rather than just read about them. In addition to this, since we planned to conduct a later study which would check people's reactions toward a wide range of selections, the preliminary study was also used to test whether or not greater accuracy was achieved through the use of 10-second, 30-second, or 60-second selections. The 30-second selections were found to be sufficiently accurate and, therefore, were used in our final study.

Beside verifying our hypothesis, the preliminary study gave us experience in administering a music preference study which used actual selections of music. We used this knowledge and experience in conducting a final study which utilized a greater number of specific musical selections, covering a wider range of music, than either our preliminary study or previous music preference studies.

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[13]David K. Berlo, The Process of Communication (New York: Holt, Rinehart, and Winston, 1960), p. 187.

[14]Ibid., p. 184.

Chapter III of this thesis discusses the planning, preparation, and administration of the final study. After conducting a telephone survey of the Lansing area, 49 subjects were chosen to participate in the study. Utilizing a 21 point preference rating scale (which ranged in meaning from "terrible" to "terrific"), the subjects gave their reactions to sixty 30-second selections of music (30 classical selections and 30 popular selections).

As mentioned previously, one of the main purposes of this research project was to provide information as to the variables among people which tend to affect their music preferences. Therefore, in our final study (utilizing a more accurate method of collecting the data and utilizing a wider array of specific selections for data analysis) we wished to re-examine whether (and if so, how) the variables of "age" and "sex" affected music preferences. We also wished to examine whether (and if so, how) the variable of "music background" (previous music experience as a student or performer) affected music preferences.

Unfortunately, difficulty developed in gaining participation in the study by certain members of the planned sample (as discussed in Chapter III). Therefore, this limited our ability to make such an analysis in the way we planned to do it. However (as mentioned in Chapter IV), our data did suggest support for those previous studies which had indicated a relationship between music preferences and the variables of age and formal education. Also,

our data suggested a relationship between music preferences
and the variables of music background and music knowledge.

While we did not succeed, to the desired degree, in
achieving one of our main purposes, we did achieve our two
major research goals: (1) we conducted a study which
utilized a more accurate method of gauging music preferences;
and (2) we analyzed the preference information, obtained in
that study, in a form more useful to broadcasters in making
music programming decisions. We were successful in: (1)
collecting data of listener reactions toward a wide range
of specific musical selections, and (2) analyzing the re-
actions toward those specific selections in a variety of
ways.

Chapter IV describes the various ways in which the
reactions, of the subjects in our study toward specific
selections of music, were analyzed.

Since "pairs" of classical and popular music had been
used in the final study, product moment correlation analysis
was conducted to indicate how similarly or dissimilarly the
subjects in the study tended to rate the "pairs" of
selections.

A factor analysis of pieces of music was conducted.
Five distinct "types" emerged, each representing a hypothe-
tical music "category." By their ratings of the selections,
the 49 subjects indicated that, in general, they perceived
that five "categories" of music were used in the study.
Each of the selections in each of the categories were seen

by the subjects in the study as belonging to a similar
"family" of music. Unlike the KING study (in which pre-
determined categories or "families" of music were used for
analysis), the categories of music in our final study were
created by an analysis that depended on the reactions of
the persons in the study, toward each of the 60 selections.

But--as useful as these two analyses were (product
moment correlation and factor analysis of pieces of music)
in gaining an insight into how the subjects reacted to
various selections of music--the most useful and significant
of the analyses was the factor analysis of persons.

The factor analysis of persons was based on the ratings
of the 60 selections by the subjects in the study. By their
ratings, the subjects had, in effect, "ranked" the 60 selec-
tions--saying that some selections were better liked and
other selections were less liked. In the factor analysis
of persons, the rankings and ratings of the subjects were
compared. Four major typologies emerged. Each typology
represented distinct ways the participants ranked the
selections. Each subject in the study held membership in
the typology whose rankings and ratings most closely
resembled his. This kind of analysis produced information
on: (1) the music preferences of the four major typologies,
and (2) characteristics of the persons who held membership
in the four major typologies (age, education, music back-
ground, etc.) A great deal of Chapter IV is devoted to de-
scribing this kind of information about the four typologies.

Further, since this analysis dealt with "persons," it was possible for us to estimate the percentage of persons age 12 or over that each of the typologies represented in the Lansing area.

With this kind of typological information and a content analysis of area radio music programming, the radio programmer can determine: (1) whether any significant segment of the audience is being over-looked by existing radio music programming, and (2) whether that segment of the audience is worth winning (from the advertiser's point of view) in terms of "quantity" (a significant percentage) or "quality" (age, education, etc.).

Since half of the 60 selections used in the final study were from the "classical" realm of music, a typological analysis of the reactions toward all 60 selections is of particular interest to classical music stations, or stations which contemplate the programming of classical music. It gives classical music stations information as to the kinds of classical music which have the widest appeal, those kinds which have little general appeal, and those kinds which are controversial. To a lesser extent, popular music stations also will find the typological analysis, presented in this thesis, to be of some benefit in the selection of their music.

Other music preference studies, discussed in this chapter, have analyzed the reactions of their subjects in terms of certain demographic characteristics of their

samples (age, education, etc.). We have made a few such comparisons and they are included in the Appendix.[15] But our chief focus, in this thesis, has been on the typological preferences--which we consider to be more significant to the music programmer.

As can be noted in the previous studies we have discussed, there are always persons in a demographic category who have preferences which do not go along with the general trend of others in that category. In fact, the preferences of a small (or large) segment of a particular demographic category may be more similar to that of an older (or younger) or better educated (or less educated) demographic category.

The factor analysis of persons typological data shows the major patterns of preferences. It is based on how similarly persons "rank" various kinds of music. It indicates how the people in a particular typology react to various selections (which selections they liked best and which they liked least). This is the kind of information that is useful to the programmer: knowledge of what major preference segments exist in the audience and how each segment reacts toward particular kinds of music.

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[15]For a comparison of how persons in three age groups (12-22, 23-49, and 50 and above) and five age-education groups (adult-college, adult-high school, adult-drop out, college student, and secondary student) reacted to each of the 60 selection of music, see Appendix III.

Of course, the programmer is interested in the demographic characteristics of the audience which share particular music preferences. And this kind of information is available from the typological data based on a factor analysis of persons. From this data, the programmer can note that persons with certain demographic characteristics are likely to be attracted to particular patterns of preference, while other persons with such demographic characteristics are attracted to other preference patterns.

From the typological data, the programmer thus has knowledge of the kind of an audience he is likely to attract by programming a particular kind of music. And the data gives him the guidelines of specific selections which are likely to best please or alienate that audience.

Further, this study presents information on how people react to specific aural selections. If it is true (as indicated by our preliminary study in Chapter II) that the subjects in a music preference study can more accurately assess their reactions toward a specific piece of music when they actually hear it (rather than just read about it), then it should also be true that the music programmer can more accurately interpret those reactions if he actually hears those selections. Because of this the actual tape, containing the 60 selections of music used in the final study, is considered to be an integral part of this thesis.

It is available for the reader of this study to hear, as
he attempts to make his own, personal, interpretation of
the results of this study.[16]

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[16]The tapes used in the preliminary study and the
final study are on file with the Michigan State University
Television-Radio Department.

# CHAPTER II

## THE PRELIMINARY STUDY

In the first chapter, we discussed the methodology and results of previous research attempts at gauging music preferences. We pointed out that the methodologies used in those studies limited their accuracy--as well as their usefulness to music programmers.

It was our hypothesis that the subjects in a music preference study could give more accurate assessments of their likes and dislikes if they had the opportunity to actually <u>hear</u> the specific selections they were being asked to judge, rather than just <u>read</u> about those specific selections. We decided to test this hypothesis by conducting a preliminary study.

In addition, since we planned to conduct a second study which would collect data on people's reactions toward a wide range of selections (and the amount of time that a subject could reasonably be expected to submit to a research project is necessarily limited), we also wished to find out in the preliminary study whether greater accuracy was achieved (and if so, to what extent) through the use of 10-second, 30-second, or 60-second selections.

## The Methodology of the Preliminary Study

To test our hypothesis, regarding a more accurate measuring device for music preferences, we conducted the following experiment:

1. We <u>visually</u> presented to the subject the titles of various selections of music, together with the name of the performing artist and other pertinent information. We asked the subject to indicate whether he liked or disliked the kinds of music which the selections represented.

2. We presented to the subject, via a tape recording, a 10-second excerpt of the same "kinds" of music (although not the identical selections which he had read about earlier). Once again, we asked the subject to indicate his pleasure or displeasure with the different kinds of music.

3. We presented to the subject a 30-second excerpt of the same "kinds" of music. These were identical to the selections he had previously only read about. Again, we asked the subject to rate the music as to his likes and dislikes.

4. We presented the subject with a 60-second selection of the same "kinds" of music (although not identical to any of the other selections previously presented to him). Again, we asked the subject to rate each selection.

5. We presented the identical 60-second selections of music to the subject for a second time and again asked him to rate each of the selections. (The reason for

repeating the identical 60-second selections, a second time, was to test the reliability of the reactions given by the subject the first time he had heard the selections.)

Since the experiment required the use of many different musical selections, a tape recording was made which contained all of the various musical selections. The use of the tape in administering the experiment had two main advantages: (1) It allowed a "quality control" over the <u>length</u> of the selections presented, the <u>portions</u> of the selections which were used, the <u>audio level</u> of the selections in relationship with the others, and the careful, impartial <u>introduction</u> of each selection. (2) It allowed the experimental session to move along much more quickly than if various records had to be put-on and removed from a phonograph.

The introductions to the various selections were put on the tape in a manner in which they would most commonly be presented on the radio. It included the title of the selection together with the performing artist. In the case of the classical selections, the names of the composers were given. All introductions were given by the author who served as the announcer.

Twelve different "kinds" of music were presented to the subjects in the preliminary study. Six of these were "classical" and six were "non-classical" types of music. The six non-classical categories of music were: (1) Original cast Broadway showtunes with a female vocal,

(2) "Old standard-type" male vocal with a big band arrange-
ment, (3) Jazz with a piano and small "combo," (4) "Non-
commercial" folk music with a male vocal, (5) Country-and-
western with a male vocal, and (6) Rhythm-and-blues with a
male group or solo vocal.

With the assistance of the music director of the
Michigan State educational radio station, WKAR, the follow-
ing six categories of classical music were developed and
used in the study:   (1) Renaissance era madrigal singing,
(2) Baroque era organ fugues composed by Bach, (3) Classical
era string quartet music composed by Hayden, (4) Romantic
era opera with a male vocal, (5) Romantic era symphony music
composed by Brahms, and (6) Modern era orchestra music
composed by Schoenberg.

The 12 different kinds of music were ordered in
an alternating pattern--first a non-classical selection,
second a classical selection, third a non-classical, fourth
a classical, etc.  An identical ordering of the 12
types of music was followed in the presentation of the
written descriptions of the music, the 10-second selections,
the 30-second selections, and both sets of the 60-second
selections.[1]

While the tape recording of the musical selections
was being prepared, we conducted various pre-tests to

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[1]The categories and selections used in the preliminary
study are found in Appendix IV.

devise an adequate scale which would measure the degree to which the subjects liked or disliked each of the various kinds of music. In addition, we worked on developing a method of finding out the relationship between a subject's preferences in music and his estimate of the amount of time he actually heard or was exposed to those kinds of music.

Among the pre-tests was one which asked the subjects to rate their preferences toward different kinds of music on a seven point scale. A mark of "one" indicated that they hated that kind of music. A mark of "four" indicated that as far as that kind of music was concerned, they had heard better and they had heard worse. A mark of "seven" meant that they liked this kind of music better than any other kind. The subjects were encouraged to make full use of the seven point scale to express the degree to which they liked or disliked each kind of music. In general, we found that the seven point scale did not seem to indicate sufficiently the degree to which the subject liked or disliked a particular selection of music.

Many researchers have found in various kinds of "preference" studies that most subjects tend to respond "positively." That is, there is a tendency for the subject in a research project to be agreeable toward most everything that is put before him. The Whan study, for example, found that adults had little inclination to specify that any type of music was so unpleasing to them that they would turn the

radio off or re-tune the radio if they heard that kind
of music. Almost a third of the adults indicated that no
type of music was that bad. Of those adults who did
specify some type of displeasing music, the tendency was
to name only one of the fourteen categories mentioned in
the study.[2]

Because of this tendency on the part of subjects to
be agreeable with the stimuli presented to them in a research
study, we increased the length of the scale so that the
subjects would have more latitude in which they could express
their approval or disapproval of a particular piece of music.
A 21-point preference rating scale was found to be satis-
factory for our purposes.

In filling out the preference scale, the subjects
were instructed to check a "plus ten" at the extreme right
side of the scale if they thought that the selection was
"terrific." Such a rating meant that they liked this
kind of music better than any other--that they thought
this was the best kind of music they had ever heard. A
rating of "minus ten" on the extreme left side of the scale
meant that they considered the selection to be the worst
kind of music that they had ever heard. They could not
stand it! It was "terrible." A rating of zero, in the
exact middle of the scale, meant that they could "take it

---

[2]Whan, op. cit., pp. 45-46.

Selection Two:

PREFERENCE

Terrible!!                                                        Terrific!!

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

EXPOSURE

Never                                                        Very Often

0 1 2 3 4 5 6 7 8 9 10
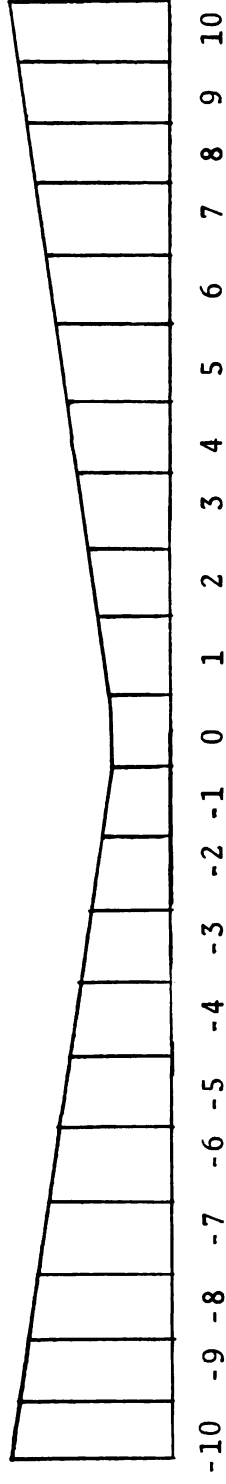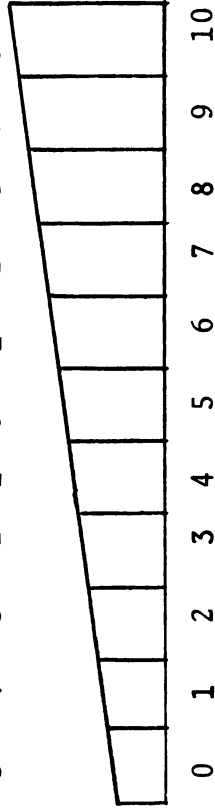
Figure 1.--The preference and exposure scales.

or leave it." They had heard better and heard worse. It was not good and not bad. The subjects were told to make full use of the rating scale to indicate the degree to which they liked or disliked the music. For example, they could rate one selection as "plus nine," another as "plus four," another as "plus one," another as "minus two," another as "minus six," another as "minus eight," etc.

These definitions of the numerical signs were verbally explained to the subjects before they took part in the study. But to further indicate to them the meaning of the scale, two descriptive words were chosen to stress the extreme feelings of the "plus ten" or "minus ten" rating. The words "terrible" and "terrific" were felt to be applicable for persons expressing approval or disapproval of either classical or non-classical music. These words were placed at the appropriate extreme ends of the prefer-ence scale.

Regarding the exposure scale, in which the subjects were to estimate how often they heard this kind of music, the two descriptive words "never" and "very often" were put at the opposite extremes of this scale. Pre-tests of this scale had shown that subjects were less hesitant in express-ing themselves in this matter. Therefore, a narrower scale for exposure, consisting of 11 possible answers, was adopted.

The subjects were instructed to make full use of the possible ratings on the exposure scale in order to show how much they had or had not heard that kind of music. They

were reminded that even if they did not like certain kinds
of music, that they might hear it quite often because of
friends, relatives, or places they had lived or worked.
On the other hand, even though they liked certain kinds
of music, they may not have heard much of it because of
various other circumstances.

## Administering the Preliminary Study

Seventeen subjects took part in the preliminary study.
The subjects were male and female, graduate and under-
graduate students, enrolled in broadcasting classes at
Michigan State University during the winter of 1963.

The experiment was held in the Art Room of the MSU
Union Building.  The seating arrangement was such that none
of the students could see any of the answers that any of
the other students marked on the questionnaires.  Because
it was recognized that "group pressures" could possibly
affect the responses which the subjects made on the ques-
tionnaires, every effort was made to arrange the seating of
the participants so that it insured the privacy of each
person.

When the students had been seated in their scheduled
areas, the questionnaires were passed out.  The students
were instructed not to look ahead on the questionnaire at
any time during the experiment, nor to look back at any of
the answers they subsequently would give.

The confidential nature of the study was stressed,
It was explained that we wanted their own personal views

on the various selections of music. They were cautioned
that no one should, during the course of the experimental
session, make any overt attempt to indicate to anyone
whether or not they approved or disapproved of any particu-
lar selection of music.

It was mentioned that they would be hearing a wide
range of music and that they should think of the selections
as representative of "kinds" of music, with the responses
which they were to give on the questionnaire, reflecting
their reactions to that "kind" of music, rather than just
to the selection itself. The definitions of the prefer-
ence and exposure scales were then given. The group worked
an example that appeared on the first page of the question-
naire. One person was selected at random to volunteer how
he had responded on the questionnaire to the sample selec-
tion of music. He was then asked to explain what the rating,
that he had given to the music, meant to him. The subjects
were invited to ask questions as to the meaning of the two
rating scales. When it appeared that everyone understood
how it worked, the group was instructed to turn to the second
page of the questionnaire.

For the first part of the study, the students were
told to fill in the preference and exposure scales for
twelve different kinds of music--making their judgments on
the basis of the written title and performing artist (and
composer in case of classical music) which appeared above
the two scales. If they were not familiar with the kind of

music to which the written information pertained, they were instructed to make a guess as to their preference and exposure toward that type of music. Some of the students indicated that they were not at all sure about or familiar with some of the kinds of music which were presented in a written fashion.

When the students had finished with the written phase of the experiment, it was then explained to them that a tape would be played which contained twelve different kinds of music and that each selection would be 10-seconds in length. They were instructed to listen closely to the full 10-second passage and then rate the music on the preference and exposure scales. After each selection, the tape recording was stopped. After a brief pause, and when it appeared that everyone in the group had completed their ratings, the question was asked, "Is there anyone who is not finished?" When everyone was finished, we then proceeded to play the next selection on the tape recording. Selection by selection, we proceeded in this manner, completing the ratings as a group.

When the twelve 10-second selections had been played, we then continued in a similar fashion with the twelve 30-second selections. When this was finished, we continued similarly with the twelve 60-second selections. Finally, we again played the identical set of twelve 60-second selections in a similar manner.

## Coding the Responses

All of the responses given by the students in the study were taken from the questionnaire and coded, in a prescribed manner, on special tables which could then be tabulated by the MSU computer. Since a computer cannot function with a "no answer" response, it was necessary to adjust some of the responses during the coding process.

The adjustments involved a typing error on the questionnaire which was not discovered until the actual experimental session was held. On the written portion of the questionnaire, Selection Four should have stated "The New York Pro Musica perform Byrd's 'The Sweet and Merry Month of May'." Instead, this information was left off the questionnaire. Thus, this part of the questionnaire was left blank by the students. In the coding process, the preference and exposure ratings that each subject gave for the 10-second selection of this kind of music were used as the ratings for the written selection.

## Conclusions of the Preliminary Study
### (The average correlations for time-length intervals.)

The prime purpose of the preliminary study was to find the answers to two questions: (1) Can a person's music preferences be measured more accurately when he has a chance to listen to actual musical selections, rather than just read about various kinds of music? (2) If it is true that his music preferences can be determined more

accurately when he hears actual musical selections, what length of time must he spend listening to the selection before a reasonably accurate assessment of his preferences can be made?

To answer these two questions, a series of comparisons were made. These comparisons indicated the degree of similarity or dissimilarity between the ratings given by the sample to the written selections and the various "time-length-intervals"--the 10-second, the 30-second, and the two sets of 60-second selections. This series of comparisons answered the two questions.

In making those comparisons we did not use the preference and exposure ratings given by all 17 persons in the sample. The responses of two persons were not used at all. These two subjects were foreign students at Michigan State who had been in this country for only a few months. They were not fully acquainted with the English language. From the manner in which they filled out the questionnaire and the rating scales, it was thought that they did not fully understand the instructions that were given on how to rate the various kinds of music. Therefore, none of their answers were used in our series of comparisons.

In those comparisons which involved the ratings on the basis of strictly written information, the responses of one other person were omitted. This person arrived late at the experimental session. He did not have time to finish rating all of the selections on the basis of the

written information. Therefore, this person's responses were not used in our comparisons of the subjects' responses toward the written information and the time-length-intervals. For these two reasons, even though 17 persons took part in the study, some of the comparisons will involve 15 subjects and some of them will involve 14 subjects.

For computational purposes, the ratings given by the subjects to the first set of 60-second selections of music were assumed to be the subject's true music preferences. There were two main reasons for this assumption: (1) Having had the opportunity to hear each kind of music for a full 60-seconds, the subject had the best opportunity afforded him in the experiment to form his opinion about the kinds of music that the selections represented. (2) Because it was the first time that the subject had heard the selections, rather than the second time, the ratings he gave to the first set of 60-second selections were "first impressions." Since the reaction was more spontaneous, it was perhaps more indicative of his true impressions about the music.

Actually, as shown in Table 4, there was very little difference in the responses given by the subjects to the two sets of identical 60-second selections. There was a very high degree of correlation, in both the preference ratings and the exposure ratings of the 15 subjects, toward the two sets of 60-second selections. For the preference ratings, the correlation was .975. For the exposure

ratings, the correlation was .965 (a perfect 100 percent correlation would be 1.00).

TABLE 4.--Preliminary study correlations.

| Fifteen Subject "Time-Length-Interval" Correlations | | | |
|---|---|---|---|
| Ratings | 10-Seconds vs 1st 60 Sec. | 30-Seconds vs 1st 60 Sec. | 1st 60-Seconds vs 2nd 60-Seconds |
| Preference | .860 | .925 | .975 |
| Exposure | .860 | .935 | .965 |

| Fourteen Subject "Written and Time-Interval" Correlations | | |
|---|---|---|
| Ratings | Written vs 1st 60-Sec. | Written vs 30-Second |
| Preference | .735 | .767 |
| Exposure | .740 | .765 |

Now we are ready to answer the two questions we posed earlier in this discussion. For both the preference ratings and the exposure ratings of the subjects involved, the trends indicated by Table 4 are identical. The highest correlation is between the two identical sets of 60-second selections (.975 for the preference ratings and .965 for the exposure ratings). There is less correlation between the responses given to the 30-second selections and the first set of 60-second selections (.925 for the preference ratings and .935 for the exposure ratings). There is still

less correlation between the responses given to the 10-second selections and the first 60-second selections (.860 for the preference ratings and .860 for the exposure ratings). The most significant decrease in correlation occurs when we compare the responses of the subjects to the written set of selections and the first 60-second set of selections. (The correlation is .735 for the preference ratings and .740 for the exposure ratings.)

Since we have assumed (for reasons previously mentioned) that the responses given by the subjects to the first set of 60-second selections were their true preference and exposure patterns, we can see that the written selections are a less accurate method of gauging these patterns of preference and exposure. However, since the correlation between the written selections and the first set of 60-second selections is .735 (for the preference ratings), the preliminary study correlations show that a music study which employs written information about musical selections is a fairly reliable method. But, we can see that the reliability of a study which employs 30-second selections of music would be significantly better. The correlation (for the preference ratings) in our preliminary study was .925 for the 30-second method compared to .735 for the written method.

It might be asked: Why wasn't there a perfect correlation of 1.00 between the two identical sets of 60-second selections? As you will remember, it was .975 for preference

and .965 for exposure. The answer is that one might

expect that when 15 persons rate 12 different kinds

of music on a scale which has 12 possible responses,

a perfect correlation of responses would be improbable.

The small difference that exists is probably attributable

to a slight change of feeling on the part of some of the

subjects or a slight variation in how some of them made

use of the rating scale.

Some might also ask if this high correlation would

also result when the written selections and the 30-second

selections were identical. A glance at the table shows

that the correlation between the written selections and

the 30-second selections (with both sets containing

identical selections) was .767 for preference and .765

for exposure. Thus, the fact that they were identical did

not contribute much toward raising the correlation. How-

ever, the table of correlations does suggest that because

the selections were identical, it may have had "some"

effect on raising the correlation level--although not very

much. But the fact that the correlation was not higher

suggests that our attempts to select similar but not

identical selections in the other sets of music, was suc-

cessful enough so that meaningful correlation comparisons

could be made on the basis of time-interval and written

information.

Some might query as to whether the degree of correla-

tion between the five sets of variables might have been

affected by the fact that an identical ordering pattern was used in the presentation of the written selections, the 10-second selections, the 30-second selections, and the two sets of 60-second selections. The candid answer to that question would be, yes--it might have contributed to the degree of correlation found in the experiment.

In conclusion, the data show that at a gross level, the written selections provide a fairly reliable method of measuring preference and exposure toward music. The 10-second segments are a significant improvement over the written information and provide a relatively good assessment of a person's music preference and exposure. Nonetheless, the 30-second selection may be somewhat better. This still leaves open the question of whether a 60-second selection is a good representation of a total selection of music. That is, would a persons's attitudes toward the music change very much if he were able to hear much more of the selection than just 60-seconds?

It was our experience, however, in administering the musical experiment that most persons' estimations appear to be made within the first few seconds of the selection and change slightly, if at all, as the selection progresses. The process seems to be that people react and can rather quickly determine their feelings about a particular piece of music. Even though the participants in the study were instructed to listen carefully to the entire selection before making a judgment, observation of their

behavior showed that many of them began jotting down their reactions before the 30-second or 60-second selection was completed.

It was on the basis of these facts that we decided to proceed in the final study by presenting the subjects with 30-second selections. This time-interval provided a reliability of .925 on the preference scale and .935 on the exposure scale, which was a substantial improvement over a method which showed the subjects written information about the music. At the same time, the use of the 30-second selections, rather than 60-second selections, allowed us to present twice as many selections of music to the subjects in the final study, in about the same amount of time as it would have taken to present the 60-second selections.

CHAPTER III

COLLECTING THE DATA FOR THE FINAL STUDY

The methodology of the final study was similar to
that of the preliminary study in the sense that tape
recorded selections of music were presented to a sample
of persons. But as the result of the time-interval-cor-
relation findings in the preliminary study, all of the
selections used in the final study were approximately
30-seconds in length.

Because the time that a subject might reasonably
be expected to give to a research project is necessarily
limited, an arbitrary ceiling of 60 selections was placed
on the number of selections used in the final study. Half
of the selections were classical music and half were
popular music.

In the preliminary study we had used 60 selections
which represented 12 different "kinds" of music. Each of
the 12 "kinds" of music had five "pairs"--selections that
were either identical, or were very similar. In the final
study, the 60 selections were to represent 30 "kinds" of
music. Each of the 30 "kinds" of music were to have two
"pairs"--selections that were not identical, but similar--
although not as similar as we had tried to make the "pairs"
in the preliminary study. The use of the "pairs" in the

final study, we felt, would allow us to make some comparisons as to the consistency of the subjects' responses to the various "kinds" of music.

Two different methods were used to determine the kinds of music that would be used to represent a broad panorama of music in the final study:  one for picking the popular music, another for picking the classical music.

## Popular Music

The kinds of popular music used in the final study were picked on the basis of a "similar and dissimilar" musical sorting test.  It was administered to three persons who were thoroughly familiar with popular music.

In the first phase of this project, the author drew up a list of 34 categories of popular music, together with two specific examples of that kind of music.  While additional categories might have been created, it was felt that the 34 categories represented, to some extent at least, a good cross-section of the widely different types of music available in the spectrum of popular music.

Each of the 34 categories, together with the examples, were placed on individual cards.  The cards were shuffled and then numbered for identification purposes.

The second phase of this project used a panel of three popular music "experts."  One was manager of Michigan State University"s educational radio station WKAR, who had formerly worked in commercial radio for a number of years.

The second was owner and music buyer of one of the larger record stores in East Lansing. The third was manager and music director of a commercial FM station in East Lansing, WSWM.

Each expert took part in a "similar and dissimilar" music sorting test. Before each administration of the test, the 34 cards were shuffled.

Each judge was asked to carefully read each of the cards. He was instructed to consider each card as a type of music and was asked to consider it in terms of how it would appeal to a radio audience. Then he was asked to start with any card he wished from the 34 available cards. Next, he picked the card which represented the kind of music which was most similar to the one he started with. He read aloud the number on the card and his answer was written down. He was then asked to pick a card with music most dissimilar to the original card. Again, he read aloud the number on the card and the number was written down. He followed the same procedure with each of the 34 cards, picking what he felt was the most similar to it, and also the most dissimilar. Any particular card could be used as many times as he wanted as most similar or most dissimilar to another one.

The lists of "similar and dissimilar" music, as perceived by these three experts, were then transferred to visual charts so that their responses could be compared. We examined these charts, looking for the 15 most dissimilar

kinds of music. Once these had been located, we looked
for the categories of music which had been judged to be
most similar to these. Thirteen of the most dissimilar
categories were perceived as having kinds of music which
were somewhat similar. Two of the 15 categories ("Sweet
Bands" and "Group Vocalists") were generally thought to
be different from any of the other possibilities, without
having any other category very similar to them.

## Classical Music

A different method was used to select the 15 "pairs"
of classical music selections which were used in the
final study. The person who selected the classical music
was a doctoral candidate in the Michigan State University
Department of Communication. He had earned a BA and an MA
in Music, and had worked as a professional musician for a
number of years.

This person developed 15 categories of classical
music which he believed were as widely dissimilar as
possible and yet made a good representation of the various
types of classical music. He then picked the 15 "pairs" of
selections which represented the categories. He also super-
vised the taping sessions at which the classical selections
were put on tape. This allowed him to pick the precise
30-second portion of the classical selection that was used
in the final study.

## Preparation of the Tape

The tape was assembled at the recording studios of WSWM-FM in East Lansing. As in the preliminary study, each selection (both classical and popular) was introduced by the author who acted as the announcer.

All of the selections were approximately 30-seconds in length, plus or minus a few seconds. The slight variation in the length of the individual selections occurred because we attempted to end each selection at a "logical" place, rather than arbitrarily.

The classical and popular selections were alternated on the tape. The first 30 selections of music represented the first 15 categories of popular music and the first 15 categories of classical music. The next 30 selections represented, in order, the "pairs" to the first group of popular and classical selections. Thus, the pair for selection 1 is selection 31, for selection 12 is 42, for selection 27 is 57, etc. (see Table 5).

## The Questionnaire and Its Administration

As was the case in the preliminary study, the questionnaire used in the final study contained a 21 point preference scale and an 11 point exposure scale. Both were found to be very satisfactory in the earlier research. The instructions given to the participants in the final study on the meaning of these scales were identical to those given in the preliminary study.

TABLE 5.--The 30 popular and 30 classical "categories" in the final study. (The numbers represent the order in which the selections were played in the experimental sessions. For a list of the 30 popular and 30 classical selections used in the final study, together with other descriptive information, see Appendix VI.)

The "Pairs" of Popular Music Categories

| | | | |
|---|---|---|---|
| 2. | Piano instrumental | 32. | Organ instrumental |
| 4. | Sweet Band | 34. | Sweet Band |
| 6. | Pre-Hi-Fi Bands | 36. | Album Drummers |
| 8. | Latin-American Orchestra | 38. | Hawaiian Guitar |
| 10. | Jazz scat singing | 40. | Progressive Jazz Combo |
| 12. | Marching Band | 42. | Barbershop Quartet |
| 14. | Harmonica-Accordian | 44. | Polka |
| 16. | Group vocalists | 46. | Group vocalists |
| 18. | Original Cast Broadway Showtunes | 48. | Sing-a-long Chorus |
| 20. | Country-and-Western | 50. | Hymns |
| 22. | Standard vocal soloists | 52. | Modern Big Band |
| 24. | Rock-and-Roll; Rhythm-and-Blues | 54. | Modern Folk Music |
| 26. | Mood Music--Soft Solo Band Instrument with Orchestra | 56. | Smooth, Full, Orchestra |
| 28. | Personality vocal novelties | 58. | "Talk" single records |
| 30. | Dixieland | 60. | Honky-tonk piano |

The "Pairs" of Classical Music Categories

| | | | |
|---|---|---|---|
| 1. | Gregorian Chant | 31. | Gregorian Chant |
| 3. | Romantic Era Orchestra | 33. | Romantic Era Orchestra |
| 5. | Contemporary Orchestra | 35. | Contemporary Orchestra |
| 7. | Romantic Era Choral Group | 37. | Romantic Era Choral Group |
| 9. | Baroque Era | 39. | Baroque Era |
| 11. | Neo-Romantic Era Orchestra | 41. | Neo-Romantic Era Orchestra |
| 13. | Renaissance Era Secular Music | 43. | Renaissance Era Secular Music |
| 15. | Romantic Era Piano Concerto | 45. | Romantic Era Piano Concerto |
| 17. | Contemporary Small Ensemble | 47. | Contemporary Small Ensemble |
| 19. | Classical Era Orchestra | 49. | Classical Era Orchestra |
| 21. | Romantic Era Small Ensemble | 51. | Romantic Era Small Ensemble |
| 23. | Impressionistic Era Orchestra | 53. | Impressionistic Era Orchestra |
| 25. | Romantic Era Opera | 55. | Romantic Era Opera |
| 27. | Romantic Era Violin Concerto | 57. | Romantic Era Violin Concerto |
| 29. | Contemporary Vocal | 59. | Contemporary Vocal |

To get the subjects thinking in terms of a wide range
of music and to make sure that they understood the meaning
of the scales, the first page of the questionnaire contained
a written selection (The Royal Scotsmen play "Bagpipes
Medley") which was used strictly for instructional purposes.

A new addition to the final study was an adjective
check list. This was placed below the preference and ex-
posure scales. The purpose of this list was to find out
what qualities the listeners perceived in each of the 60
pieces of music (see Figure 2).

Selection Two:

PREFERENCE

Terrible!!                                                         Terrific!!

-10   -9  -8   -7  -6   -5   -4   -3   -2  -1   0    1    2    3    4    5    6    7   8   9   10

EXPOSURE

Never                                                             Very Often

        0    1    2    3    4    5    6    7    8    9    10
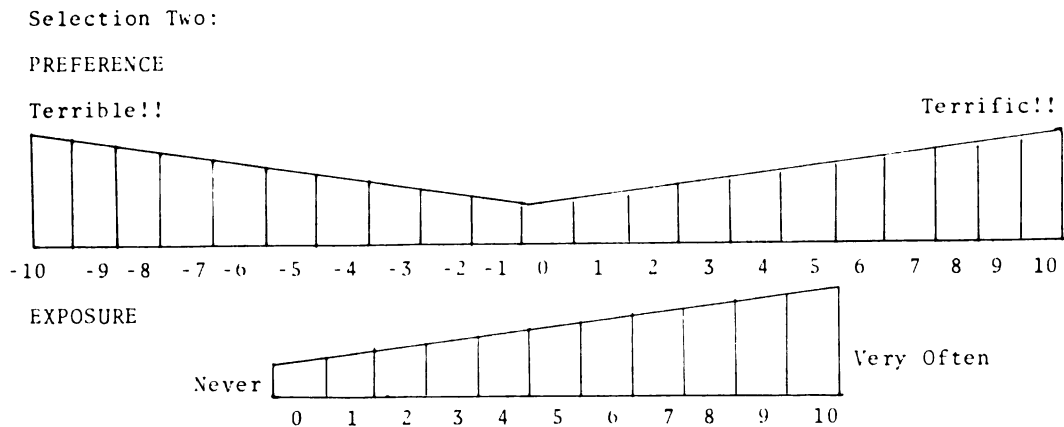
WHEN YOU HAVE FINISHED THE ABOVE, PLEASE MARK BELOW EVERY ADJECTIVE YOU THINK IS A GOOD
DESCRIPTION OF THE KIND OF MUSIC YOU HAVE JUST HEARD.

___familiar          ___sentimental     ___serious        ___noisy          ___relaxing
___old               ___singable        ___stimulating    ___weird          ___smooth
___new               ___danceable       ___cold           ___disorganized   ___rich

___understandable    ___gay             ___graceful       ___shrill         ___gloomy
___complicated       ___rhythmic        ___majestic       ___cheap          ___passionate
___tiring            ___cute            ___wholesome      ___monotonous     ___sour

Figure 2.--The final study's adjective check list.

The subjects were instructed to consider each of the 30 adjectives, individually, and to place a mark beside each word they felt was a good description of the kind of music they had just heard. Some persons used over 15 adjectives to describe certain selections of music. On rare occasions, several persons did not check any of the adjectives.

In administering that portion of the questionnaire which dealt with the preference scale, exposure scale, and adjective check list, a procedure identical to the preliminary study was followed in the final study. After each 30-second selection had been played, the tape recorder was stopped. When everyone had filled out the necessary information, we proceeded to the next musical selection.

When the "listening portion" of the questionnaire had been filled out, the subjects in the final study were instructed to work at their own pace in answering a variety of other questions, including some which dealt with their age, education, and previous musical experience.

Included in these questions were two tests of musical knowledge: (1) a music notation test which tested their familiarity with formal musical terminology, and (2) a musician identification test which tested their familiarity with the names of classical and popular musicians.[1] The results of these tests will be discussed later in this thesis.

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[1]See Appendix VI for the music notation test and the musician identification test, together with the correct answers to those tests.

## The Planned Sample

Selection of the persons to participate in the experimental sessions was a crucial part of the final study.

Earlier music preference studies had shown that, of the variables studied, age was the single most important factor in music preferences.

The Whan study had indicated that there might be some differences of opinion toward some types of music between males and females. We thought, also, that this would be a worthwhile characteristic to explore because radio audience composition figures for males and females vary considerably depending on the time of the day and the day of the week.

In addition, we hypothesized that previous experiences with music (as a performer or student of music) would affect current music preferences.

We planned to conduct a random sample telephone survey of the Lansing area to find out information about the age, sex, and music background of all family members age 12 or over. This information would be used to place all the identified family members into specific combinations of sex, age, and music background. Random methods would then be used to select 54 of these persons for a structured sample. These persons would form the sample for our final study.

The plan called for two sexes, three age levels, and three levels of musical training, a 2 x 3 x 3 factorial design. Each cell or combination was to be replicated three times, yielding 54 persons split equally into 18 cells. This

would provide the most powerful possible analysis for this sample size, of the contribution of these three variables to musical preference.

The stratified sample in the final study, then, contained persons who differed from one another, according to three basic characteristics: (1) "sex" (male and female); (2) "age" (12-22, 23-49, and 50 or above); and (3) "music background" (high, medium, and low). The planned sample was to contain three persons in each of the 18 cells, equally divided according to the previously mentioned characteristics.

Thus the 54 persons in the planned sample were to include: 27 males and 27 females, 18 persons age 12-22, 18 persons age 23-49, 18 persons age 50 or above, 18 persons with high music backgrounds, 18 persons with medium music backgrounds, and 18 persons with low music backgrounds.

TABLE 6.--The planned cell composition (54 persons).

| Age | Male | | | Female | | |
|---|---|---|---|---|---|---|
| | High Bg.* | Medium Bg. | Low Bg. | High Bg. | Medium Bg. | Low Bg. |
| 12-22 | 3 | 3 | 3 | 3 | 3 | 3 |
| 23-49 | 3 | 3 | 3 | 3 | 3 | 3 |
| 50 or Above | 3 | 3 | 3 | 3 | 3 | 3 |

*Bg. = background.

## The Telephone Survey

During the months of April and May, 1963, the telephone survey was conducted with persons in a random sample of households listed in the March 1963 edition of the Lansing Telephone Directory. Using random sampling techniques, one hundred names were selected for the telephone survey.[2] All of the phone numbers belonged to residences.

The interviewing was done by the author. Eighty-two telephone interviews were completed. Seventy-six of these were with the "lady of the house." Six were with adult men. It had been previously decided that, whenever possible, the interviews would be with the housewife. One reason for this was to achieve consistency. A second reason was that a variety of questions were asked about family members, including the music background of the family members. It was believed that the "lady of the house" would normally be in the best position to give relatively authoritative answers to such questions.

Of the 82 completed interviews in the telephone sample, three were with persons whose names had not been in the original one hundred randomly selected names. In these three cases, new persons were making use of the randomly selected telephone numbers.

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[2]One hundred telephone numbers were selected to be called in the telephone survey. The selection was made in the following manner: using a table of random numbers, applicable numbers were picked for pages in the telephone directory, columns on a page, and distance down a column to the nearest tenth of an inch.

Completed interviews were not obtained from 18 persons in the telephone sample. Six of these persons could not be contacted, despite the fact that their phone numbers were called a minimum of six different times during various hours of the day and evening. Eight persons in the original list hung up during the course of the interviews before all of the necessary information was obtained. Three persons had disconnected phone numbers and their new phone numbers were not available from the telephone operator. One person in the telephone sample had such a heavy foreign accent that it was impossible to understand her answers to the questions; therefore, the interview was not completed.

From the 82 interviewees, we received information on 202 persons, ages 12 or over, in the Lansing area. A total of 120 persons were family members of the 82 interviewees. Of these 202 persons, two were mentally retarded and one was totally deaf. It was from the remaining 199 persons that we selected those who took part in the final study.[3]

### Selecting the Actual Sample
### for the Final Study

The next step in the plan called for the placement of each of the 199 persons into each of the 18 cells which were based on the three characteristics of sex, age, and music

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[3] See Appendix VII for a description of the 199 interviewees and their family members upon whom we had information as a result of the telephone survey.

background. Before this was done, we looked over the
calibre and the number of years of musical experience of
the 199 persons. We then drew up a definition of music
background and created the three categories of high, medium,
and low.[4]

When this was done, a wide disparity in cell sizes
could be noted. For example, two cells each contained 20
persons (male, age 23-49, low music background; and female,
age 23-49, high music background). On the other hand, one
cell (which contained male, age 50 or over, high music
background) contained only four persons. Another cell
(male, age 12-22, high music background) contained only
five persons. Four other cells contained only six persons.
Therefore, we could foresee that while it would be relatively
easy to get participation from some of the 18 cells, it would
be very difficult to gain the desired participation in each
of the 18 cells.

Nonetheless, our goal was to get three persons from
each cell to represent that cell in the experimental sessions.
A random method was used to pick the persons we wanted to
represent that cell. However, since we recognized there
might be persons who would be unable or unwilling to take
part in the final phase of the study, we randomly selected
six persons to represent each of the cells (except for the
two cells which contained less than six persons).

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[4]See Appendix VIII for the definitions used in placing
persons into one of the three music background categories.

We then sent letters to the 105 persons. The letters invited them to attend one of three music sessions which had been scheduled at the campus. The letters contained post-paid postcards which each person was to mail back to the University, specifying which of the three sessions he would attend. A handful of postcards were returned. Some of them stated that they would not be able to take part in the project.

Telephone calls were then made to each of the homes which had received a letter, personally requesting they come to the campus to attend one of the sessions. A number of persons did attend, but others indicated an inability to come to the scheduled sessions.

Additional sessions were scheduled at times which appeared to be more convenient for more people.. While some persons did attend these sessions, other people indicated that they still could not come to the University to take part in the study.

When it became apparent that adequate participation would not be achieved through the administration of the experiment at the pre-arranged campus sessions, the author made additional phone calls to the persons who had been randomly selected to take part in the study. The importance of their participation was stressed and they were told of author's willingness to come over to their homes to administer the project at a time which would be most convenient to them. Some persons were not willing to take part and

and offered various excuses for not being able to specify a time when a home-visit would be possible.

Additional problems became apparent in our attempt to gain participation from the planned, randomly selected sample. For one thing, some of the information given by the persons who had taken part in the final study did not agree with the information we had obtained about them in the telephone survey. This was particularly true about the music backgrounds of some of the participants. Occasionally, it was true about ages and formal education. Sometimes this new information indicated that they should have been placed in different cells. A number of persons were changed to different cells as the result of verifying phone calls made to their homes.

Another major problem in gaining participation from the planned, random sample was that, while it was fairly easy to get participation from persons in some cells, it was difficult to get even one person from other cells to take part.

The plan was revised. The author still attempted, on numerous occasions, to get cooperation from the persons who had been randomly selected to represent the cells; but, we also attempted to gain participation from families, who had two or more persons in them and whose characteristics placed them in cells which still did not have the desired three person representation.

More telephone calls were made. Home-visits were
arranged. Occasionally, some people did not keep their
appointments and were not at home when the author arrived
for the home visit.

At the end of three weeks (from the middle of May
to early June, 1963), 49 persons from the original tele-
phone sample of 199 had taken part in the study.

The 49 subjects in the final study represented 25
different families. Twenty subjects (representing 12
different families) came to one of the sessions held at the
campus. Twenty-nine subjects (representing 13 different
families) participated in the study through personal
visits to their homes. In the case of one family, two
family members took part through a home-visit, while one
family member came to a campus session.

A comparison of the characteristics of those subjects
who participated in the study by coming to the campus and
those who participated through home-visits, shows that the
two groups tended to be somewhat different in a number of
ways.

"Males" were less inclined, than females, to come
to the campus to take part in the study. Although 23 males
participated in the study, only seven came to the campus
sessions (while 16 took part through home-visits). On the
other hand, of the 26 female participants in the study,
13 came to the campus sessions and 13 were visited in
their homes.

Persons who had attended college for at least one year were more willing to attend the sessions held on the Michigan State campus, than were persons without such an educational background. Twelve of the 20 persons who took part in the campus sessions had completed at least one year of college. On the other hand, only 10 of the 29 persons who were interviewed at home had completed at least one year of college.

In particular, adult participation in the campus sessions was affected by formal education backgrounds. This is shown by Table 7 which compares "home-visit" versus "campus" participation in terms of five "age-education" categories.[5]

Of the 16 adult subjects who had completed two or more years of college, nine came to the campus sessions, while seven took part through home-visits. However, of the 17 other adult subjects with lesser amounts of formal schooling, only four attended the campus sessions, while 13 participated through home-visits. (Of the nine adult participants who had graduated from high school, but had not attended at least two years of college, only two attended the campus sessions. Of the eight adult participants who had not graduated from high school, only two attended the campus sessions.)

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[5]See Appendix IX for the definitions used in placing persons into one of the five age-education categories.

TABLE 7.--Location of the interview versus age-education.

| Location and Total Number | Adult- College | Student- College | Adult- High-School | Adult- Drop-Out | Student- Secondary |
|---|---|---|---|---|---|
| Home (29) | 7 | 2 | 7 | 6 | 7 |
| Campus (20) | 9 | 2 | 2 | 2 | 5 |
| Total (49) | 16 | 4 | 9 | 8 | 12 |

## Cell Composition of the Sample in the Final Study

Due to the difficulties which were encountered in gaining participation, the cell composition of the sample in the final study was different from the planned sample (see Table 8). Rather than having three persons in each cell, as had been planned, one cell (female, age 23-49, high music background) had as many as seven persons. Six of the cells contained only one person each.

The plan called for an identical number (27) of males and females; instead 23 males and 26 females participated. There were to have been 18 persons in each of the three graduations of music background. The actual sample had 15 persons with high music background, 14 with medium music background, and 20 persons with low music background. Thus, the actual sample was short of the desired number in the

high and medium background cells and had more than enough
in the low music background cells.

There were to have been 18 persons in each of the
three age categories. Instead, the actual sample contained
17 persons between the ages of 12 and 22, 18 persons between
the ages of 23 and 49, and 14 persons age 50 or over. Thus,
the actual sample was one person short in the youngest age
group and four persons short in the oldest age group.

TABLE 8.--Actual cell composition of the sample in the final
study (49 persons).

| Age | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | High Bg.* | Medium Bg. | Low Bg. | Age Totals | High Bg. | Medium Bg. | Low Bg. | Age Totals |
| 12-22 | 1 | 4 | 4 | 9 | 2 | 3 | 3 | 8 |
| 23-49 | 2 | 1 | 3 | 6 | 7 | 4 | 1 | 12 |
| 50 or Above | 1 | 1 | 6 | 8 | 2 | 1 | 3 | 6 |
| Totals | 4 | 6 | 13 | 23 | 11 | 8 | 7 | 26 |

*Bg. = background.

Obviously then, the actual sample in our final study
did not contain the desired amount of participation
for a number of cells. Thus, we were not able to conduct
the kind of thorough analysis we had planned regarding the
relationship between music preferences and the variables of
age, music background, and sex. Nonetheless, the data

collected in the final study were analyzed in numerous ways and produced some significant findings. These findings are detailed in Chapter IV.

CHAPTER IV

ANALYSES OF THE DATA--THE FINAL STUDY

## Introduction

The most significant analysis of the reactions of the
subjects to the 60 selections of music involved a factor
analysis of persons. From this kind of analysis, four
typologies emerged, each representing persons with similar
rankings for the 60 selections.

Utilizing a high speed computer, a comparison was
made of the ratings that each subject had given to each
of the 60 selections. The computer noted that each person
tended to give higher ratings to some pieces of music and
lower ratings to other selections. That is, each person
tended to like certain selections of music more than other
selections. From these comparisons of the ratings, the
computer found that there were four major patterns of
preference, four groups of persons who tended to rank the
selections similarly.

Each of the subjects in the study had a "factor
loading" on each of the four typologies. The factor load-
ing indicated the degree to which each person's preference
patterns were similar to each of the four types. The
higher the factor loading for a subject on a particular type,
the more similar were his preferences to that type. The

lower the factor loading, the less similar he was to that type.[1]

For example: Subject Two had a factor loading of .93 on Type A, -.03 on Type B, .18 on Type C, and -.08 on Type D. Subject Two had his highest factor loading (by far) on Type A. Therefore, his rankings of the 60 selections of music were more similar to the rankings of the other subjects in Type A, than to the rankings of the subjects in the other three topologies. In fact, his very high factor loading of .93 on Type A (which is very close to a perfect correlation of 1.00) shows that his pattern of preference is almost identical to that of Type A.

Subject Two had a preference pattern that was quite different from the subjects in Types B, C, and D. He had a negative factor loading of -.03 on Type B, a very low loading of .18 on Type C, and a negative loading of -.08 on Type D. It is clear, therefore, that Subject Two's best liked and least liked selections were more similar to the pattern of preference (the ranking of the 60 selections) exhibited by Type A persons.

Each of the four typologies in the factor analysis of persons, in effect, represented a "hypothetical person" who rated certain selections high on his preference continuum and other selections lower. The persons who "belong" to

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[1]See Appendix X for the factor analysis of persons factor loadings. The loadings for each person on each typology are given.

each of the types have factor loadings which indicated that their preference patterns were more similar to that typology, than to any of the others.

Of the 49 subjects in the sample, 25 had their highest factor loadings on Type A, 14 on Type B, seven on Type C, and three on Type D.

While it is a gross over-simplification to describe the music preferences of the four typologies in terms of one or two word "labels," an attempt will be made to do so, now, in the belief that it should help the reader--at this point--to get some picture of the kinds of preference patterns that each of the four typologies represented.

TYPE A could clearly be described as the "hit parade" or "anti-classical" typology. Its top favorites were "recent hit parade" or "top 40" selections. At the same time, it preferred any of the 30 popular selections to any of the 30 classical selections.

TYPE B might be described as the "classical" typology since: (1) "most" of its best liked selections were from classical music, and (2) it liked classical music more than any of the other three typologies.

TYPE C could be described as a "semi-classical" typology since it liked the "more sophisticated" popular selections very much and also had numerous classical favorites.

TYPE D might be described as a "quasi-hit parade" typology with its best liked selectons ranging from recent hit parade selections, rock-and-roll, and jazz--to extremely modern classical music.

Since radio programmers would find it useful to know the approximate percentage of people in the Lansing area that each of the four typologies represents, statistical computations were conducted which allowed us to make such estimates.

You will recall that our telephone survey was a "random sampling" of telephone households in the Lansing area. From the telephone survey we obtained various demographic information on 199 persons who were age 12 or over.

From the factor analysis of persons, we had demographic information on the persons in each of the four typologies. Using conventional weighting techniques, we expanded the structured sample of 49 persons, who took part in the final study, back to the 199 persons. In this way, we were able to make an estimate as to the percentage of persons (age 12 or over in the Lansing area) that each of the four typologies represented.

The resultant estimate was that Type A (the hit parade or anti-classical typology) represented the preference patterns of 48% of the Lansing area population, age 12 or over. Type B (the classical typology) represented 30% of that population. Type C (the semi-classical typology) represented 19%. Type D (the Quasi-hit parade typology) represented only 3%.[2]

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[2]See Appendix VI for the music notation test and the musician identification test, together with the correct answers to those tests.

Therefore, from the standpoint of those radio music programmers who are interested in acquiring the biggest audience, the musical likes and dislikes of Type A (the hit-parade group) are most important. Type A represents 48% of the Lansing area audience age 12 or over.

The preferences of Type B (the classical group) and Type C (the semi-classical group) are also very significant in terms of the size of the audience. Type B represents 30% and Type C represents 19%. As we shall discuss later, when we examine each of the four typologies in detail, Types B and C are also important because of the "quality" of the persons in these typologies. (They are older and possess more formal education than Type A.)

If for no other reason than the potential small size of the audience, the preferences of Type D (the quasi-hit parade group) are of relatively little interest, since a commercial radio station would not normally want to struc-ture its programming in order to win a potential audience of only 3%.

## The Relationship of Age, Education, Music Background, and Sex to Music Preferences

As mentioned in Chapter III, we had hoped to conduct a rather thorough analysis of the relationship between music preferences and the variables of age, music background, and sex. However, this plan was thwarted by an inability to get the desired participation from our planned sample.

Nevertheless, the typological data in our final study seems to suggest a relationship between a subject's age, formal education, and music background--and typological membership. In general, the older subjects, those with more formal education, and those with high music backgrounds, tended to hold membership in Type B (the classical type) and Type C (the semi-classical type); while the subjects who were younger, less educated, and had low music backgrounds, tended to hold membership in Type A (the hit parade type) and Type D (the quasi-hit parade type).

Age.--Of the 17 "youngest" subjects (age 12-22) who participated in the study, 13 were in Type A or D. Ten were in Type A (the hit parade and anti-classical typology). All three subjects in Type D (the quasi-hit parade typology) were from this youngest age group. Only four subjects from the youngest age group were in either Type B or C.

On the other hand, of the 14 "oldest" participants in the study (age 50 and older), eight were in Type B (the classical typology) and one was in Type C (the semi-classical typology). Only five of the 14 oldest subjects were in Type A (the hit parade typology).

Formal education.--Of the 16 adult subjects who had attended college for two or more years, 13 had either Type B or C preference patterns. Seven were in Type B (the classical typology) and six were in Type C (the semi-classical typology). Only three of the best educated adults (adults who completed two or more years of college) were in Type A (the hit parade typology). None was in Type D,

On the other hand, of the eight adults in the study who had not completed high school, five were in Type A (the hit parade typology). The remaining three were in Type B (the classical typology).

Music background.--Of the 15 subjects with "high" music backgrounds, 10 were in either Type B or C; six in the classical typology and four in the semi-classical typology. Only five were in the hit parade typology (Type A).

On the other hand, of the 20 persons with "low" music backgrounds who took part in the study, 15 were in either Type A or D; 13 in the hit parade typology and two in the quasi-hit parade typology. Only five were in either Types B or C (four in the classical typology and one in the semi-classical typology).

Sex.--Of those who took part in the study, 12 of 26 females and 9 of 23 males held membership in Types B and C (the classical or semi-classical typologies). While this shows that the female participants were slightly more prone than the male participants to hold membership in these two typologies, it should also be noted that the female participants in this study: (1) were slightly older, (2) had slightly more education, (3) had a larger percentage of adults rather than students, and (4) had considerably more previous music experience.

## The Relationship of Music Knowledge
## to Music Preferences

In the last chapter, we mentioned that we had admin-
istered two brief tests of music knowledge to the subjects
in our final study. We did this to test a hunch that there
might be a relationship between music knowledge and music
preferences.

Only one of the tests (the "Music Notation test")
appears to have succeeded in suggesting that such a rela-
tionship exists. This test consisted of nine multiple
choice questions.

The other test of music knowledge, used in our study,
was the "musician identification test." It called for the
identification of 20 "musicians" from a list of 40 names.
Ten of the musicians were associated with classical music
and ten with popular music. (Of the ten popular musicians,
only three were connected with recent hit parade music;
the other seven were connected with older and/or more sophis-
ticated kinds of popular music.)[2]

The music notation test scores indicated that persons
with a better knowledge of formal music terminology tended
to like classical music better. The classical typology had
the highest score, the semi-classical typology was next
best, and the quasi-hit parade typology (which also picked
a number of classical selections among its best liked selec-
tions) ranked third on the test. The hit parade typology
(which liked any kind of popular music better than any kind

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[2]See Appendix VI for the music notation test and the
musician identification test, together with the correct
answers to those tests.

of classical music) ranked a poor fourth--by picking only
half as many correct answers as the classical type (on the
average).

TABLE 9.--Musical test scores of the four types:  mean
average number of correct answers.

| Type | Music Notation Test | Musician Identification Test | | |
|---|---|---|---|---|
| | Score | Classical Score | Popular Score | Popular-Classical Total Score |
| A (Hit Par.) | 2.9 | 4.6 | 5.7 | 10.4 |
| B (Classical) | 5.8 | 5.1 | 6.0 | 11.1 |
| C (Semi-Classical) | 5.4 | 4.7 | 7.3 | 12.0 |
| D (Quasi-Hit Parade) | 3.7 | 3.3 | 8.0 | 11.3 |

The "musician identification test" results did not
appear to have a meaning which was a clear-cut as the music
notation test.  Regarding the identification of classical
musicians, Type A (the anti-classical typology) scored almost
as well as the popular and semi-classical typologies.  Re-
garding the popular musician identification test, perhaps it
was not too surprising that Type A (the hit parade--or anti-
classical) typology had the lowest average score, in view of
the fact that only three of the popular musicians were
recent hit parade "musicians."

When we compared the scores of the 49 persons in our
study with regard to their "music backgrounds" (high, medium,
and low), we again found that the music notation test produced

very predictable results. (Subjects in the high music background category had the highest average scores. Subjects in the low music background category had the lowest average scores.) However, on the musician identification test, while subjects in the high music background category had the best scores on both the classical and popular parts of the test--all of the scores were quite similar. And, in fact, on the classical identification section the subjects in the low music background category had a slightly higher average score than the subjects in the medium music background category.

TABLE 10.--Musical test scores of the 49 subjects in the three music background categories: mean average number of correct answers.

| Music Background | Music Notation Test Score | Musician Identification Test | | |
|---|---|---|---|---|
| | | Classical Score | Popular Score | Popular-Classical Total Score |
| High | 6.1 | 5.4 | 6.4 | 10.8 |
| Medium | 4.7 | 4.3 | 6.3 | 10.6 |
| Low | 2.5 | 4.5 | 6.0 | 10.5 |

## The "Pairs" of Selections Used in the Final Study

In Chapter III we discussed how the 60 selections of music, used in the final study, were selected--to provide 15 "pairs" of classical music and 15 "pairs" of popular music. Though different methods were employed to select the

"pairs" of classical and the "pairs" of popular selections, the objective was the same: to make the "pairs" of selections "somewhat" similar in terms of their "appeal" to an audience.

The degree of similarity or dissimilarity between the "pairs," in terms of their "appeal" to the subjects in our study, was determined by "product moment correlation" analysis.[3] This analysis indicated that, in general, the classical pairs were perceived to be much more similar than the popular pairs.

To determine the product moment correlations for each of the 30 pairs of music (15 classical and 15 popular pairs), we compared the responses given by the 49 persons in our sample to each of the 30 pairs of music. The resultant product moment correlation, for each of the pairs, showed how similar or dissimilar the 49 persons thought the pairs were. (A high product moment correlation indicated that the 49 persons tended to rate the pairs similarly--similarly high or similarly low. A low product moment correlation indicated that the persons in the sample tended to rate each selection in a pair quite differently.)

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[3]In computing the product moment correlations, the scores on the 21 point preference scale were re-coded in the following manner: -10 to -9 was coded as "0", -8 to -7 as "1", -6 to -5 as "2", -4 to -3 as "3", -2 to 0 as "4", 1 to 2 as "5", 3 to 4 as "6", 5 to 6 as "7", 7 to 8 as "8", and 9 to 10 as "9".

## The Classical Pairs

The product moment correlations for the 15 pairs of classical music, for the most part, were relatively high. Thirteen pairs had correlations which ranged from .603 to .810. The high correlations indicated that the 49 persons in the sample tended to rate the classical pairs very much alike, i.e., if they rated one selection in the pair high, they tended to rate the other selection in the pair high or if they tended to rate one selection in the pair low, they also tended to rate the other selection in the pair low (see Table 11).

Among all the pairs, the pair containing the two Mozart selections (Selection 19, "Symphony Number Forty in G Minor" and Selection 49, Eine Kleine Nachtmusik") had the highest correlation (.810). This meant that in a very high percentage of cases, subjects who had rated Selection 19 "very favorably" had rated Selection 49 "very favorably." Also, subjects who had rated one selection unfavorably had rated the other selection unfavorably to a similar degree.

Two of the classical pairs had moderately low product moment correlations--below .500. Selections 13 and 43 (both Renaissance secular music) had the lowest correlation (.412). The probable reason for the relatively low correlation of this "pair" was that one selection was a vocal, while the other selection was an instrumental. (This was the only classical pair containing a vocal and an instrumental.)

TABLE 11.--Product moment correlations for the 15 "pairs"
of classical music used in the final study.

| Selection Number | Description | Product Moment Correlation |
|---|---|---|
| 19<br>49 | Mozart's "Symphony Number Forty in G Minor<br>Mozart's "Eine Kleine Nachtmusik" | .810 |
| 29<br>59 | Donna Praycht sings music by Varese<br>Bethany Beardslee sings music by Schoenberg | .799 |
| 23<br>53 | Debussy's "La Mer"<br>Debussy's "Afternoon of a Faun" | .784 |
| 3<br>33 | Brahms' "Symphony Number Four in E Minor"<br>Schubert's "Symphony Number Eight in B Minor" | .780 |
| 15<br>45 | Grieg's piano "Concerto in A Minor"<br>Rachmaninoff's piano "Concerto Number Two in<br>C Minor" | .773 |
| 7<br>37 | Chorus singing a German Requiem by Brahms<br>Chorus singing Verdi's Requiem | .764 |
| 25<br>55 | Richard Tucker sings Verdi's "La donna è mobile"<br>Elisabeth Schwarzkopf sings Wagner's "Lohengrin" | .734 |
| 27<br>57 | Mendelssohn's "Concerto in E Minor for violin..."<br>Tchaikovsky's "Violin Concerto in D Major" | .732 |
| 11<br>41 | Richard Strauss' "Don Juan"<br>Respighi's "The Pines of Rome" | .726 |
| 17<br>47 | Webern's "Six Pieces for Orchestra"<br>Webern's "Six Pieces for Orchestra" | .707 |
| 21<br>51 | Beethoven's piano sonata "Appassionata"<br>Beethoven's "String Quartet in E Minor" | .652 |
| 9<br>39 | Bach's organ "Fugue in C Major"<br>Bach's "Orchestral Suite Number One in C Major" | .628 |
| 5<br>35 | Stravinsky's "The Rite of Spring"<br>Shostakovich's "Symphony Number Five" | .603 |
| 1<br>30 | Monk's Choir sings a Gregorian chant<br>Cathedral Choir sings a Palestrina motet | .461 |
| 13<br>43 | Madrigal singers with Byrd's "...Merry Month of<br>May"<br>Dufay's "Sequence for WhitSunday" | .412 |

The other classical pair with a moderately low correlation involved the Gregorian chants (Selections 1 and 31). The probable reason for the moderately low correlation of .461, in this instance, was that one of the selections was the very first piece of music presented on the tape, while the other selection was presented much later in the experimental session. Apparently, the music subsequently presented on the tape influenced a number of persons to change their rating toward that kind of music.

## The Popular Pairs

In contrast to the product moment correlations for the 15 classical pairs, the correlations for the 15 pairs of popular music were very low. They ranged from a low of .097 (practically no correlation) to a high of .593 (only fairly high). This indicated that, for the most part, the 49 persons tended to see each of the selections in the 15 popular pairs as being quite different from one another. With a few exceptions, they tended to have greater differences of opinion about the two selections in the popular pairs than about the two selections in the classical pairs (see Table 12).

The pair with the lowest product moment correlation, .097, contained Selections 8 and 38. Selection 8 was the Stanley Black Orchestra playing the Latin-flavored "Granada." Selection 38 was the Hawaiian Islanders playing "Song of the Islands." The low product moment correlation indicated that

TABLE 12.--Product moment correlations for the 15 "pairs" of popular music used in the final study.

| Selection Number | Description | Product Moment Correlation |
|---|---|---|
| 24<br>54 | Freddie Cannon sings "Palisades Park"<br>Kingston Trio sings "Tom Dooley" | .593 |
| 4<br>34 | Guy Lombardo's Chorus sings "...Wonderful, Copenhagen"<br>Russ Morgan sings "So Tired" | .526 |
| 10<br>40 | Ann Richards sings "No Moon At All"<br>Dave Brubeck's Quartet plays "Take Five" | .481 |
| 16<br>46 | The Lettermen sing "When I fall in Love"<br>The Four Lads sing "No Not Much | .465 |
| 26<br>56 | Jackie Gleason's Orchestra plays "But Not For Me"<br>Mantovani's Orchestra plays "If I Loved You" | .435 |
| 28<br>58 | Jimmie Durante sings "...Start Off Each Day With a Song"<br>Water Brennan recites "Old Rivers" | .394 |
| 20<br>50 | Johnny Horton sings "North to Alaska"<br>Tennessee Ernie Ford sings "The Old Rugged Cross" | .392 |
| 14<br>44 | The Harmonicats play "Cherry Pink and Apple Blossom..."<br>Frankie Yankovic's Chorus sings "Pennsylvania Polka" | .382 |
| 30<br>60 | Dukes of Dixieland play "Runnin' Wild"<br>Pianist,Del Wood plays "Hello My Baby" | .331 |
| 12<br>42 | Eastman Marching Band Plays "Washington Post March"<br>Barbershop Quartet singing "Happy Days are Here Again" | .315 |
| 22<br>52 | Frank Sinatra sings "Five Minutes More"<br>Warren Covington conducts the "T.D." Band "In the Mood" | .314 |
| 2<br>32 | Pianist,Bent Fabric plays "Alley Cat"<br>Organist, Ken Griffin plays "Elmer's Tune" | .201 |
| 6<br>36 | Paul Whiteman's Orchestra plays "Wang,Wang,Blues"<br>Drummer,Saul Goodman plays "Tympania" | .176 |
| 18<br>48 | Julie Andrews sings "I Could Have Danced All Night"<br>Mitch Miller's Sing-a-Long Chorus: "Four Leaf Clover" | .150 |
| 8<br>38 | Stanley Black's Orchestra plays "Granada"<br>Hawaiian steel guitar instrumental: "Song of the Islands" | .097 |

there was practically no relationship between the liking of one selection and the liking for the other selection, or the disliking of one and a disliking of the other.

Selections 24 and 54 had the highest correlation among the popular pairs. Selection 24 was the rock-and-roll record "Palisades Park," while Selection 54 was the folk song "Tom Dooley" by the Kingston Trio. The moderately good correlation of .593 indicated that the persons who rated one of the selections in a particular manner, frequently tended to rate the other selection in a similar manner. Thus, it would be a fairly accurate prediction to say that persons who liked one selection, liked the other--while persons who disliked one selection, disliked the other.

Only one other popular pair had a correlation above .500. Selections 4 and 34 (featuring Guy Lombardo and Russ Morgan, respectively) had a product moment correlation of .526. Both could be described as representing "sweet music."

The Pairs as Perceived by the
Four Typologies

We also computed the average product moment correlation for each of the four typologies (from our factor analysis of persons) to see how similarly or dissimilarly each of the types tended to rate the pairs of selections. When the scores given by each type for Selections 1 through 30 were compared with the scores given by each type for Selections 31 through 60, an average correlation for each type was obtained.

TABLE 13.--Comparison of the product moment correlations for selections 1-30 with selections 31-60 by the four types.

| | "A" Hit Parade | "B" Classical | "C" Semi- Classical | "D" Quasi-Hit Parade |
|---|---|---|---|---|
| Correlations | .87 | .43 | .38 | .02 |

Table 13 shows that the preference ratings which Type A gave to the first set of 30 selections were highly similar to the ratings which the subjects in that typology gave to the second set of 30 selections. Type A had the highest correlations of any of the four types. One of the major reasons for this was that the subjects in Type A had consistently tended to negatively and similarly rate the 30 classical selections.

Types B and C, however, liked some of the classical and some of the popular selections. Their correlations were substantially lower than Type A, indicating that they tended to rate most of the pairs of music quite differently.

For Type D, there was practically no relationship between the ratings they gave to the first set of 30 selections and the second set.

## A Factor Analysis of the 60 Pieces of Music

We have just discussed how similarly and dissimilarly the 49 persons in the study, as well as the four typologies, had perceived the "pairs" of music used in the final study.

We also conducted a "factor analysis of pieces of
music." From this analysis, five "categories" of music
emerged. These categories were not "pre-determined" (as
in the KING study or to a lesser extent, our "pairs" of
music). The categories were created by an analysis that
depended on the reactions of the 49 persons in the study
toward each of the 60 selections of music. The categories
were the result of differences between the selections that
the subjects in the study perceived to be significant in
terms of "appeal."

Each "category" contained various selections of music
which were judged to be similar to one another. The selec-
tions in each of the five categories of music were, on the
basis of preference ratings, seen to belong to the same
"family" of music--sharing a "common bond" with other selec-
tions in that category.

The selections in each category had tended to get
similar ratings from many of the subjects. In general, the
subjects had tended to rate the selections in a particular
category similarly high or similarly low.

Each of the 60 selections had a factor loading on each
of the five categories. The factor loading indicated the
degree of the relationship of that selection to each category.
The higher the factor loading, the more similar the selection
was perceived to be to that category. The lower the factor

loading, the less similar it was seen to be to that category.[4] For example, for Selection Two, Category One's factor loading was -.23, Category Two's factor loading was .25, Category Three's factor loading was .15, Category Four's factor loading was .65, and Category Five's factor loading was .03. Selection Two had its highest factor loading on Category Four. It was, therefore, deemed to be more similar to the other selections in Category Four than to the selections in any of the other categories.

In order to learn more about each of the five categories of music, we placed all 60 selections into one of five categories. Each of the selections was placed in the category for which it had the highest factor loading (degree of relationship). Then, tables were constructed which contained the selections in rank order according to their factor loadings. Selections with the highest factor loadings for that category were placed on the top of the list and selections with the lowest factor loadings for that category were placed on the bottom.

By examining the selections in these tables, which represent the five categories, we can see the results of the factor analysis of the 60 pieces of music. We can describe each of the five "families" of music and see how they are different and unique from one another.

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[4]See Appendix XI for the factor analysis of the 60 pieces of music factor loadings. The loadings for each selection on each category (typology) are given.

While describing each of the five categories with brief "labels" is an over-simplification, the five categories of music might be called: (1) Classical music, (2) Recent hit parade vocals, (3) Old popular music, (4) Modern, sophisticated popular music, and (5) Old, lively, novelty, popular music.

Four of the categories encompassed various kinds of popular music. One of the categories revolved around classical music. This indicates that many of the 49 persons in the study tended to make a number of preference distinctions between the 30 popular selections presented in the study, but tended to think of the 30 classical selections as being much more similar.

Category One involved the classical music selections. The 30 selections which had the highest factor loading on Category One were all from the classical idiom of music. The highest factor loading on Category One was .89 for Selection 39 (Bach's "Orchestral Suite Number One in C Major"). The lowest factor loading for selections in Category One was .48 for Selection One (the vocal by the Choir of the Monks at the Abbey of St. Pierre).

Two "popular" selections had their second highest factor loading on Category One, Selection 18 (the showtune by Julie Andrews) and Selection 56 (the instrumental by Mantovani's Orchestra). The factor loadings of these two selections on the "Classical Music" category were .45 and

TABLE 14.--Category One (classical music).  Factor analysis
of the 60 pieces of music.  Selections upon which Category
One had a higher factor loading than any of the other four
categories.

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 1 | The Philharmonia Orchestra plays Bach's "Orchestral Suite Number One in C Major"(39) | .89 |
| 2 | The Boston Symphony Orchestra plays Schubert's "Symphony Number 8 in B Minor" (33) | .87 |
| 3 | The Berlin Philharmonic Orchestra plays Respighi's "The Pines of Rome" (41) | .87 |
| 4 | The Amedeus String Quartet plays Beethoven's "String Quartet in E Minor" (51) | .86 |
| 5 | The Chicago Symphony Orchestra plays Mozart's "Symphony Number Forty in G Minor" (19) | .85 |
| 6 | The Vienna Society of the Friends of Music Chorus sings a selection from Verdi's "Requiem" (37) | .85 |
| 7 | The Columbia Orchestra plays Anton Webern's "Six Pieces for Orchestra" (selection 47) | .85 |
| 8 | The Philadelphia Orchestra plays Debussy's "Afternoon of a Faun" (53) | .84 |
| 9 | The Minneapolis Symphony Orchestra playing a tone poem by Richard Strauss, "Don Juan" (11) | .83 |
| 10 | The Philadelphia Orchestra plays Debussy's "La Mer" (23) | .83 |
| 11 | Donna Praycht sings Edgar Varese's music for "Soprano and Chamber Orchestra" (29) | .83 |
| 12 | The Philadelphia Orchestra plays Mozart's "Eine Kleine Nachtmusik" (49) | .83 |
| 13 | Isaac Stern, accompanied by the Philadelphia Orchestra, plays Mendelssohn's "Concerto in E Minor for Violin and Orchestra" (27) | .83 |
| 14 | The Philharmonia Chorus sings a German Requiem by Brahms (7) | .82 |
| 15 | Sviatoslav Richter plays Beethoven's "Appassionata, The Sonata in F Minor" (21) | .82 |
| 16 | Artur Rubinstein, accompanied by the Chicago Symphony Orchestra, plays Rachmaninoff's "Concerto Number Two in C Minor" (45) | .82 |

TABLE 14.--<u>Continued</u>

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 17 | Elisabeth Schwarzkopf sings music from Wagner's "Lohengrin" (55) | .82 |
| 18 | Isaac Stern, accompanied by the Philadelphia Symphony, plays Tchaikovsky's "Violin Concerto in D Major" (57) | .82 |
| 19 | Richard Tucker sings "La donna è mobile" (25) | .81 |
| 20 | The Boston Symphony Orchestra plays Brahms' "Symphony Number Four in E Minor" (3) | .81 |
| 21 | The National Symphony Orchestra plays Dimitri Shostakovich's "Symphony Number Five" (35) | .80 |
| 22 | The Columbia Symphony plays Stravinsky's "The Rite of Spring" (5) | .77 |
| 23 | Leon Fleisher, accompanied by the Cleveland Orchestra, plays Grieg's "Concerto in A Minor for Piano and Orchestra" (15) | .74 |
| 24 | The New York Pro Musica sings Byrd's "The Sweet and Merry Month of May" (13) | .72 |
| 25 | Organist E. Power Biggs plays Bach's "Fugue in C Major" (9) | .72 |
| 26 | The Pro Musica Antiqua plays Dufay's "Sequence for WhitSunday" (43) | .72 |
| 27 | Bethany Beardslee sings Arnold Schoenberg's "Pierrot Lunaire" (59) | .71 |
| 28 | The Columbia Orchestra plays Anton Webern's "Six Pieces for Orchestra" (17) | .65 |
| 29 | A motet by Palestrina sung by the Regensburg Cathedral Choir (31) | .63 |
| 30 | A selection by the Choir of the Monks at the Abbey of St. Pierre (1) | .48 |
| 31 | Julie Andrews sings "I Could Have Danced All Night" (18) (This selection had a higher factor loading on Category Four. However, the significance of this selection is that it was the highest loaded non-classical selection on Category One.) | .45 |
| 32 | Mantovani's Orchestra plays "If I Loved You"(56) (This selection had a higher factor loading on Category Four. However, its significance is that it is one of the two non-classical selections with a factor loading of .35 or above on Category One.) | .36 |

and .36, respectively. Thus, these two popular selections were perceived to be fairly similar to the classical music selections.

Category Two consisted of only five selections. All were vocals which had recently been on the hit parade (within the past five years). Since only five recent hit parade vocals were used in the study, it seems significant that these selections were all grouped together in the same category--based on audience "appeal."

TABLE 15.--Category Two (hit parade vocals). Factor analysis of the 60 pieces of music. Selections upon which Category Two had a higher factor loading than any of the other four categories.

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 1 | The Kingston Trio sings "Tom Dooley" (54) | .73 |
| 2 | Johnny Horton sings "North to Alaska" (20) | .72 |
| 3 | Walter Brennan recites "Old Rivers" (58) | .72 |
| 4 | The Lettermen sing "When I Fall in Love" (16) | .71 |
| 5 | Freddie Cannon sings "Palisades Park" (24) | .69 |

The three recent hit parade instrumentals, which were used in the study, did not have their highest factor loadings on Category Two.

Two of these recent hit parade instrumentals had their highest factor loadings on Category Four (the "modern, sophisticated," popular music category). These two selections were: Dave Brubeck's jazz selection "Take Five" and

pianist Bent Fabric's "Alley Cat." Neither of these selec-
tions had rock-and-roll arrangements.

The third recent hit parade instrumental, used in the
study, that did not have its highest factor loading on Cate-
gory Two was the harmonica selection: "Cherry Pink and
Apple Blossom White" played by the Harmonicats. This selec-
tion had a moderately low, but similar, factor loading on
three categories of music, but was highest on Category
Three (the "old" popular music category). Its factor load-
ings were .37 on the vocal hit parade category, .40 on the
"old" popular music category, and .31 on the "modern, sophis-
ticated," popular music category.

Category Three consisted of 11 selections of "old"
popular music: six vocals and five instrumentals.

TABLE 16.--Category Three ("old" popular). Factor analysis
of the 60 pieces of music. Selections upon which Category
Three had a higher factor loading than any of the other four
categories.

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 1 | Tennessee Ernie Ford sings "...Old Rugged Cross" (50) | .77 |
| 2 | Mitch Miller's Chorus sings "...Four Leaf Clover" (48) | .76 |
| 3 | Honky tonk piano: "Hello My Baby" (60) | .74 |
| 4 | F. Yankovic's Chorus sings "Pennsylvania Polka" (44) | .73 |
| 5 | Hawaiian Islanders play "Song of the Islands" (38) | .70 |
| 6 | Organist, Ken Griffin plays "Elmer's Tune" (32) | .59 |
| 7 | Barbershop Quartet sings "Happy Days Are Here..." (42) | .57 |
| 8 | Russ Morgan sings "So Tired" (34) | .56 |
| 9 | Guy Lombardo's Chorus sings "...Copenhagen" (4) | .54 |
| 10 | Marching Band plays "Washington Post March" (12) | .53 |
| 11 | Harmonicats play "Cherry Pink..." (14) | .40 |

The description of this category as "old" popular
music can be justified by a brief persual of some tables,
presented in the Appendix of this thesis, which indicate
the best liked selections of the "older" subjects who took
part in the study. To construct these tables, the partici-
pants in the study were placed into three appropriate "age
groups" (12-22 years, 23-49 years, and 50 or over) and five
"age-education groups" (adults who attended college, adults
who graduated from high school, adults who did not complete
high school, college students, and younger students). For
each of the 60 selections, the preference ratings of the
persons in each group were averaged in a particular manner.[5]

The three top favorites of the oldest "age group" (age
50 or over) are among the 11 selections in Category Three
(the Hymn, Marching Band, and Hawaiian selections).

Among the five "age-education groups," the oldest
group consisted of the adults who had not finished high
school. The mean average age of this group exceeded 50
years of age. Ten of the 12 top favorites of this group
appear in the list of 11 selections in Category Three.

Category Four consisted of 11 selections (seven instru-
mentals and four vocals) involving "modern, sophisticated,
popular music and jazz."

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[5]See Appendix III for a comparison of how persons in
the three age groups (12-22, 23-49, and 50 or above) and the
five age-education groups (adult-college, adult-high school,
adult-drop out, college student, and secondary student) re-
acted to each of the 60 selections of music.

The six selections with the highest factor loadings on this category were all "sophisticated" instrumentals. One of these selections is by the Mantovani Orchestra (a selection which had a moderately good factor loading on the "Classical Music" category). The showtune selection by Julie Andrews (which also had a moderately good factor loading on the "Classical Music" category) had its highest factor loading on Category Four.

All three of the "jazz oriented" selections (featuring Dave Brubeck, Ann Richards, and the drum solo) had their highest factor loadings on Category Four.

TABLE 17.--Category Four ("modern, sophisticated," popular). Factor analysis of the 60 pieces of music. Selections upon which Category Four had a higher factor loading than any of the other four categories.

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 1 | Stanley Black's Orchestra plays "Granada" (8) | .78 |
| 2 | Dave Brubeck's Quartet plays "Take Five" (40) | .71 |
| 3 | Jackie Gleason's Orch. plays "But Not For Me" (26) | .69 |
| 4 | Pianist,Bent Fabric plays "Alley Cat" (2) | .65 |
| 5 | Mantovani's Orchestra plays "If I Loved You" (56) | .65 |
| 6 | W. Covington conducts the "T.D." band: "In the Mood" (52) | .55 |
| 7 | Ann Richards sings "No Moon At All" (10) | .54 |
| 8 | Drummer,Saul Goodman plays "Tympania" (36) | .54 |
| 9 | The Four Lads sing "No Not Much" (46) | .53 |
| 10 | Frank Sinatra sings "Five Minutes More" (22) | .49 |
| 11 | Julie Andrews sings "...Danced All Night" (18) | .48 |

An examination of the three best liked popular selections, by adults who had attended two or more years of

college, shows that their three favorite selections were by Julie Andrews, Stanley Black, and Mantovani. These three selections also appear in Category Four. Five of the six best liked selections by the "college student" group (selections by Dave Brubeck, Saul Goodman, Stanley Black, The Four Lads, and Mantovani) also appear in Category Four. The similarities, between the selections in Category Four and the best liked selections of the two college groups, tend to support the "labeling" of Category Four's music as "modern, sophisticated," popular music.[6]

Category Five consisted of only three selections. The two instrumentals have a "dixieland sound." The Jimmie Durante vocal does not. All of the selections are lively and old. While it is particularly difficult to place a "label" on this small "family" of selections, the words "old, lively, novelties" seem appropriate.

TABLE 18.--Category Five ("old, lively, novelty" popular). Factor analysis of the 60 pieces of music. Selections upon which Category Five had a higher factor loading than any of the other four categories.

| Rank No. | Description and Selection Number | Factor Loading |
|---|---|---|
| 1 | Paul Whiteman's Orchestra plays "Wang, Wang, Blues" (6) | .74 |
| 2 | Dukes of Dixieland play "Runnin' Wild" (30) | .74 |
| 3 | Jimmie Durante sings "...Start Off Each Day" (28) | .65 |

[6]See Appendix VI.

## The Factor Analysis of Persons

The chief method of analyzing the music preference data in the final study involved a factor analysis of persons. From this kind of analysis, four typologies emerged--each representing "kinds of persons" with similar patterns of preference (similar "rankings" of the 60 selections of music).

In the remainder of this chapter, we shall present a detailed discussion of the four typologies which emerged from our factor analysis of persons. For each of the four types, information will be presented on: (1) characteristics of the persons holding membership in the type (age, formal education, music background, and music knowledge); (2) the mean ratings given to each of the 60 selections of music; (3) the 15 best liked and 15 least liked selections; (4) the adjectives most frequently used to describe the best liked and least liked selections, and (5) the selections that each type liked considerably more and considerably less than any of the other types. In addition (keeping in mind our desire to provide useful information to music programmers) we shall compare the reactions of the pertinent typologies to various selections of music--pointing out areas of preference agreement, as well as "controversial" selections of music.

Before we examine each of the typologies in detail, clarification should be given of two computational terms

which will be utilized in the ensuing discussion. These

two terms are <u>standard scores</u> and <u>means</u>.

In this section, numerous tables will be presented

which show the various selections that each type liked best

and liked least. On these tables you will note the presence

of "standard scores" (often called Z scores in statistical

parlance). These standard scores indicate the degree to

which the persons <u>with the highest factor loading on that</u>

<u>type</u> tended to rate the selection similarly high or similarly

low.[7] For a particular type, these scores show the relative

popularity or unpopularity of each selection when compared

to the other 59 selections. The standard score with the

highest positive number, within a type, is the best liked

selection within that type. The standard score with the

highest negative number, within that type, is the least liked

selection within that type.[8]

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[7]See Appendix XII for the standard scores of the typo-
logies for each of the selections (30 classical and 30
popular).

[8]In this chapter considerable attention will be paid
to the standard scores. For simplicity's sake, the standard
scores for the selections will be referred to "verbally" in
the following manner:

| | |
|---|---|
| +2 or above.... | very strongly like |
| 1.0 to 1.99 .... | strongly like |
| .50 to .99 .... | substantially like |
| .49 to .00 .... | mildly accept |
| -.01 to .49 .... | mildly reject |
| -.50 to -.99 .... | substantially reject |
| -1.0 to -1.99 .... | strongly reject |
| -2.0 or more .... | very strongly reject |

These verbal definitions of the standard scores should aid
the reader in interpreting a particular typology's reaction
to a particular selection of music.

Also to be discussed in this section are the "means"--
the average rating that all of the subjects in each of the
typologies gave to each of the 60 selections.[9]  Simply put:
a mean is a very common method of _averaging_ numbers.  For
example, say we wanted to find the mean of Type A's prefer-
ence rating for Selection One.  (As you will recall, ratings
were made on a 21 point scale with the ratings ranging from
a possible plus 10 to a possible minus 10.)  To find the
mean we add up the ratings given to Selection One by the
25 persons in Type A.  Then we divide this sum of the numbers
by 25 to get the mean average rating of Type A for Selection
One.  If the resulting mean were a negative number it would
show that, on the average, Type A persons tended to rate the
selection negatively.  (The closer the mean was to -10, the
more they tended to dislike it.)  If, however, the mean were
a positive number it would show that, on the average, Type A
persons tended to rate the selection on the positive (favor-
able) side of the preference scale.  (The closer the mean
was to a plus ten, the more they tended to like it.)

For the most part, as we shall see in the ensuing dis-
cussion, three of the four typologies (Types B, C, and D)
tended to have positive means for all but a few of the 60
selections.  In other words, on the average, most of the

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[9]See Appendix XIII for the mean average scores of the
four typologies on the 21 point preference rating scale for
each of the 30 popular and 30 classical selections.

persons in these three types indicated a liking for most of the music presented to them in this study.[10]

Actually, of the 49 persons who were asked to participate in the study, only eight persons had a negative mean average for the 60 selections. Nonetheless, they had "ranked" the 60 selections by "rating" some selections higher than others. The standard scores for each type takes into consideration (for the subjects with their highest factor loading on that type): (1) their rankings of the 60 selections, and (2) the degree to which they rated one selection significantly higher or lower than the other 59 selections.

## Type A Persons (the Hit Parade Typology)

Type A represents the preferences of 48% of the Lansing area population age 12 and over.

Twenty-five of the 49 persons had preference patterns which were most similar to those of Type A. Thirteen of these subjects were males, while 12 were females.

Age.--Type A was the next to the youngest of the four typologies. Only Type D (the quasi-hit parade typology) was younger. The mean average age of the subjects in Type A was 31.3 years. Ten subjects were between 12 and 22 years old. Ten were between the ages of 23 and 49 years. Only five persons were age 50 or over.

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[10]See Appendix XIV for the mean average score on the 21 point preference scale for each person taking part in the final study.

Education.--On the average, subjects in Type A had the least amount of formal education of any of the other types. Type A persons completed a mean average of 9.8 years of schooling. One reason for the low average for formal education was the presence of 10 "students" (elementary and secondary), two of whom had completed only the fifth grade. Of the 15 "adults" in Type A, only three had completed two or more years of college, one had completed a year of college, six had graduated from high school, and five did not finish high school.

Music background.--Type A persons tended to have little previous experience with music--as a student or performer. Thirteen had "low" music backgrounds. Seven had "medium" music backgrounds. Only five had "high" music backgrounds.

Music knowledge.--Of the four typologies, Type A persons scored lowest on the "music notation test" of formal musical terminology. They had a mean average score of 2.9 correct answers out of a possible perfect score of nine. Their score was half that of Type B (the classical typology).

Mean Scores of Type A Toward
Each of the 60 Selections

The mean scores of the 25 persons in Type A, for each of the 60 selections of music, show that Type A liked the popular selections and disliked the classical selections.

Of the 30 classical selections used in the study, 29 had negative means. Only one classical selection

(Selection 31, a Palestrina motet sung by the Regensburg Cathedral Choir) received a mean above .00.

On the other hand, only one popular selection (Selection 10, the jazz scat singing of Ann Richards) received a mean below the neutral zone. The other 29 popular selections received positive means--with 20 popular selections having very high means of +5 or more.

TABLE 19.--The 25 persons in Type A. Distribution of the means for the 60 selections on the 21 point rating scale.

| Means | Number of Popular Selections | Number of Classical Selections |
|-------|------------------------------|-------------------------------|
| +5 or more | 20 | 0 |
| +4.99 to .00 | 9 | 1 |
| Negative | 1 | 29 |

The selection with the highest mean from Type A persons was Selection 14 (The Lettermen singing "When I Fall in Love"). It was considered to be "terrific" with a mean of +7.32. On the other extreme, Selection 59 (Bethany Beardslee's vocal of "Pierrot Lunaire") received the lowest mean of -7.60, a rating of "terrible."

Type A's 15 Best Liked
Selections

Type A's standard scores, of its best liked selections, indicate clearly why it has been described as "the hit parade typology." Type A's six best liked selections are all recent hit parade selections (including the rock-and-roll

selection).  In addition, a seventh recent hit parade selec-
tion was number 10  on Type A's list of favorites (Selection
58, Walter Brennan's 1962 recitation of "Old Rivers.")

The only recent hit parade selection, used in the study,
that was not among Type A's 15 best like selections was Dave
Brubeck's 1962 jazz record "Take Five."  It ranked number 20.[11]

Two other fairly recent selections were among Type A's
top 15:  (1) Number 12 was Warren Covington conducting the
Tommy Dorsey Band on "In the Mood."  This tune was popular
in 1939 with the Glenn Miller version, but the melody also
received new popularity and familiarity to a new, young
audience in 1959 with a rock-and-roll hit parade version.
(2) Number 15 was the Four Lads singing "No Not Much."
This song was a million seller and hit parade song in 1956
(seven years prior to our final study).

Type A also had a liking for "old" popular music.
Five of its 15 best liked selections were categorized as
"old" in our factor analysis of the 60 selections.  They
included:  the Hymn by Tennessee Ernie Ford, the organ in-
strumental by Ken Griffin, the Hawaiian guitar instrumental
by the Hawaiian Islanders, the "sing-a-long" vocal by the
Mitch Miller Chorus, and the honky-tonk piano selection by
Del Wood.

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[11]See Appendix XV for the list of the 15 least liked
popular selections of Type A (the hit parade and anti-class-
ical typology) which ranked all 30 popular selections higher
than any of the classical selections.

TABLE 20.--Type A's 15 best liked selections.

| Rank No. | Description and Selection Number | Standard Score |
|---|---|---|
| 1 | Johnny Horton sings "North to Alaska" (20) | 1.46 |
| 2 | The Kingston Trio sings "Tom Dooley" (54) | 1.39 |
| 3 | Pianist, Bent Fabric plays "Alley Cat" (2) | 1.36 |
| 4 | Freddie Cannon sings "Palisades Park" (24) | 1.33 |
| 5 | The Harmonicats play "Cherry Pink and Apple Blossom White" (14) | 1.32 |
| 6 | The Lettermen sing "When I Fall in Love" (16) | 1.30 |
| 7 | Tennessee Ernie Ford sings "The Old Rugged Cross" (50) | 1.16 |
| 8 | Organist, Ken Griffin plays "Elmer's Tune" (32) | 1.15 |
| 9 | The Hawaiian Islanders play "Song of the Islands" (38) | 1.12 |
| 10 | Walter Brennan recites "Old Rivers" (58) | 1.08 |
| 11 | Mitch Miller's Chorus sings "I'm Looking Over a Four Leaf Clover" (48) | 1.08 |
| 12 | Warren Covington conducts the Tommy Dorsey Band playing "In the Mood" (52) | 1.08 |
| 13 | Frank Sinatra sings "Five Minutes More" (22) | 1.07 |
| 14 | Pianist, Del Wood plays "Hello My Baby" (60) | 1.05 |
| 15 | The Four Lads sing "No Not Much" (46) | 1.02 |

In addition, the Frank Sinatra vocal was ranked number 13 in Type A's list of 15 top favorites.

At the top of Type A's list of favorites was the country-and-western selection by Johnny Horton "North to Alaska" which had been the number one song in January of 1961 on the local "rock-and-roll" station (WILS). Second, was the 1959 folk song by the Kingston Trio: "Tom Dooley." Third, was the 1962 piano instrumental by Bent Fabric: "Alley Cat." Fourth, was the 1962 rock-and-roll hit by Freddie Cannon: "Palisades Park." Fifth, was the harmonica instrumental "Cherry Pink and Apple Blossom White" which had been a hit in 1961 by the Harmonicats and in 1955 by another group.

Sixth, was the Letterman's 1962 hit recording of "When I Fall in Love."

Type A also indicated a preference for vocal music as 10 of its 15 best liked selections were vocals. Only five were instrumentals. Of the 30 popular selections used in the study, 16 had been vocals and 14 were instrumentals.

It also might be noteworthy that both of the popular music piano selections used in the study were among Type A's 15 best liked selections (selections by Bent Fabric and Del Wood).

## Selections Type A Liked More Than the Other Typologies

There were seven selections that Type A liked considerably more than any of the other three typologies. All, but the Russ Morgan selection, had been mentioned in our discussion of Type A's 15 best liked selections.

All seven of the selections were from the realm of popular music. Four were vocals and three were instrumentals.

Four of the selections were recent hit parade songs (vocals by Walter Brennan and The Kingston Trio; instrumentals by the Harmonicats and pianist, Bent Fabric). Three of the selections were from the "older" kinds of popular music (a barbershop quartet number by the Buffalo Bills, a sweet music vocal by Russ Morgan, and the honky-tonk piano piece by Del Wood).

TABLE 21.--Selections Type A liked "considerably more" than did any of the other typologies. (For these selections, the standard scores on Type A are at least .5 higher than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| The Harmonicats play "Cherry Pink and Apple Blossom White" (14) | 1.32 | .19 | -.59 | -.57 |
| Walter Brennan recites "Old Rivers" (58) | 1.08 | .14 | -.22 | .00 |
| The Buffalo Bills sing "Happy Days are Here Again" (42) | .94 | .26 | .02 | -1.01 |
| Honky-tonk pianist, Del Wood plays "Hello My Baby" (60) | 1.05 | .28 | .14 | -1.06 |
| Pianist, Bent Fabric plays "Alley Cat" (2) | 1.36 | -.99 | .62 | .44 |
| The Kingston Trio sings "Tom Dooley" (54) | 1.39 | .00 | -.95 | .72 |
| Russ Morgan sings "So Tired" (34) | .65 | .00 | .14 | -.73 |

Type A's 15 Least Liked Selections

All 15 of Type A's least liked selections were from the realm of classical music. An analysis of these 15 selections shows more about the "kinds" of classical music that were most disliked.

The four least liked selections were all vocals with an "opera-sound" (selections composed by Schoenberg, Verdi, Wagner, and Varese). Two other vocals (choral "Requiems") were among the 15 least liked pieces of music. Since only

nine of the 30 classical selections used in the study were
vocals, it can be seen that Type A had a tendency to par-
ticularly reject the vocals in classical music--especially
those with an "opera-sound."

TABLE 22.--Type A's 15 least liked selections.

| Rank No. | Description and Selection Number | Standard Score |
|---|---|---|
| 60 | Bethany Beardslee sings Arnold Schoenberg's "Pierrot Lunaire" (59) | -1.67 |
| 59 | Richard Tucker sings Verdi's "La donne è mobile" (25) | -1.52 |
| 58 | Elisabeth Schwarzkopf sings music from Wagner's "Lohengrin" (55) | -1.50 |
| 57 | Donna Praycht sings Edgar Varese's music for "Soprano and Chamber Orchestra" (29) | -1.44 |
| 56 | The Amedeus String Quartet plays Beethoven's "String Quartet in E Minor" (51) | -1.30 |
| 55 | The Vienna Society of the Friends of Music Chorus sings a selection from Verdi's "Requiem" (37) | -1.27 |
| 54 | The Philadelphia Orchestra plays Debussy's "La Mer" (23) | -1.23 |
| 53 | The Columbia Orchestra plays Anton Webern's "Six Pieces for Orchestra" (17) | -1.22 |
| 52 | The Columbia Orchestra plays Anton Webern's "Six Pieces for Orchestra" (47) | -1.22 |
| 51 | Isaac Stern plays Tchaikovsky's "Violin Concerto in D Major" (57) | -1.17 |
| 50 | The Philadelphia Orchestra plays Debussy's "Afternoon of a Faun" (53) | -1.16 |
| 49 | The Philharmonia Orchestra plays Bach's "Orchestral Suite Number One in C Major" (39) | -1.15 |
| 48 | The Pro Musica Antiqua of Brussels plays Dufay's "Sequence for WhitSunday" (43) | - .96 |
| 47 | The Philharmonia Chorus sings a German Requiem by Brahms (7) | - .88 |
| 46 | Artur Rubinstein plays Rachmaninoff's "Concerto Number Two in C Minor" (45) | - .85 |

Two of the 15 least liked selections prominently featured a violin soloist (one was Beethoven's "String Quartet in E Minor" and the other was Tchaikovsky's "Violin Concerto in D Major"). Since only three of the 30 classical selections, used in the study, prominently featured a violin soloist, the implication is that Type A had a tendency to particularly reject this kind of classical music.

Type A also had an aversion against "Impressionistic" symphonic music and "Contemporary" small ensemble instrumental music. Both selections written by Debussy and both selections written by Webern were strongly rejected by Type A and appeared on its list of 15 least liked selections.

### Selections Type A Liked Less Than
### The Other Typologies

Since Type A rejected all forms of classical music, it is not surprising to see that a large number of classical selections appear on the list of selections which Type A liked considerably less than any of the other typologies. Eleven of these selections are from the realm of classical music. There is only one popular selection which Type A liked considerably less than any of the other types. This was the selection by the Mantovani Orchestra--a relatively "sophisticated" kind of popular music.

TABLE 23.--Selections Type A liked "considerably less" than did any of the other typologies. (For these selections, the standard scores on Type A are at least .5 lower than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Rachmaninoff's piano "Concerto Number 2 in C Minor, Opus 1" (45) | -.85 | 1.27 | 1.96 | 1.22 |
| "Symphony Number 5, Opus 47" by Dimitri Shostakovich (35) | -.55 | 1.10 | .50 | .82 |
| Schubert's "Symphony Number 8 in B Minor" (33) | -.55 | 1.29 | .38 | .72 |
| Beethoven's "Appassionata... the Sonata in F Minor, Opus 57" (21) | -.79 | .11 | .38 | .44 |
| Respighi's "The Pines of Rome" (41) | -.85 | .03 | .13 | -.05 |
| Mozart's "Eine Kleine Nachtmusik" (49) | -.77 | 1.37 | .02 | .50 |
| Mantovani's Orchestra plays "If I Loved You" (56) | .44 | 1.23 | 1.48 | 1.21 |
| Brahms' "Symphony Number Four in E Minor, the 3rd Movement" (3) | -.54 | .21 | .87 | .77 |
| The Philharmonia Chorus with a German "Requiem" by Brahms (7) | -.88 | .42 | .38 | -.22 |
| Debussy's "La Mer" (23) | -1.23 | -.64 | 1.35 | .28 |
| Debussy's "Afternoon of a Faun" (53) | -1.16 | -.58 | .99 | -.12 |
| Bach's "Orchestral Suite in C Major" (39) | -1.15 | .82 | -.59 | .55 |

Type A and the Adjective Check List

We examined the adjective check lists of the 10 persons who had the highest factor loading on Type A and hence

were most representative of the persons in Type A. We compiled a list of the adjectives most frequently used to describe the 10 best liked and 10 least liked selections (as determined by the standard scores).[12]

Type A's 10 best liked selections were all from the realm of popular music. The 10 least liked selections were all from the realm of classical music.

TABLE 24.--Type A's 10 best liked and least liked selections. (Each adjective potentially could have been mentioned 100 times.)

| 10 Best Liked Selections | | | 10 Least Liked Selections | | |
|---|---|---|---|---|---|
| Rank Order | Adjectives | No. of Mentions | Rank Order | Adjectives | No. of Mentions |
| 1 | Familiar | 61 | 1 | Tiring | 61 |
| 2 | Rhythmic | 51 | 2 | Weird | 47 |
| 3 | Singable | 37 | 3 | Noisy | 37 |
| 4 | Danceable | 34 | 4 | Shrill | 36 |
| 5 | Relaxing | 33 | 5 | Complicated | 30 |
| 6 | Gay | 30 | 6 | Sour | 29 |
| 7 | Sentimental | 23 | 7 | Monotonous | 28 |
| 8 | Understandable | 21 | 8 | Cold | 25 |
| 9 | Smooth | 19 | 9 | Gloomy | 23 |
| 10 | Serious | 17 | 10 | Disorganized | 20 |

To describe the 10 best liked selections, the adjective "familiar" was most commonly used. In a majority of cases, these selections were described as familiar and rhythmic.

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[12]Appendix XVI lists Type A's 10 best liked and 10 least liked selections, as well as the adjectives most frequently used to describe each of those selections by the 10 persons who had the highest factor loading on Type A. Appendix XVI contains a similar list for Types B, C, and D.

To describe the 10 least liked selections, only one adjective ("tiring") was mentioned by a majority of the 10 people for a majority of the 10 selections. This suggests that the chief reason why they disliked the 10 classical selections was that they considered it a "tiring" experience to listen to them.

A comparison of the adjectives used to describe the best liked and least liked selections of music shows that not one adjective used to describe the best liked selections was used to describe the least liked selections--and vice versa.

## Type B Persons (the Classical Typology)

Type B represents the preferences of 30% of the Lansing area population age 12 and over.

Fourteen of the 49 persons had preference patterns which were most similar to those of Type B. Six of these subjects were males, while eight were females.

Age.--Type B was the oldest of the four typologies. The mean average age was 45.1 years old. Eight of the 14 persons in Type B were 50 years of age or older. Three were between age 23 and 49. Only three persons were age 22 or younger.

Education.--Type B was next to the highest, among the typologies, in terms of "years of schooling completed." The mean average amount of formal education totalled 13.3 years

(1.3 years of college). Type B contained 12 "adults" and two "students." Of the 12 adults, seven had completed two or more years of college, two were high school graduates who had completed no more than one year of college, and three had not finished high school. The two students included one secondary student and one college student.

Music background.--Type B was next to the highest, among the typologies, in the amount of previous musical experience--as a student or performer. Of the 14 persons in Type B, six had "high" music backgrounds, four had "medium" music backgrounds, while four had "low" music backgrounds.

Music knowledge.--Type B had the highest score on the "music notation test" of any of the typologies. They had a mean average score of 5.8 correct answers out of a possible perfect score of nine. Their score was twice that of Type A (the anti-classical typology).

Mean Scores of Type B Toward
Each of the 60 Selections

On the average, the 14 persons in Type B tended to like most all of the 60 selections of music used in the study. Negative means were recorded for only four selections (two popular and two classical).

Generally, however, greater enthusiasm was displayed for the classical, rather than the popular selections.

Fourteen classical selections received mean scores of +5 or more, while only seven popular selections received such high means.

TABLE 25.--The 14 persons in Type B. Distribution of the means for the 60 selections on the 21 point rating scale.

| Means | Number of Popular Selections | Number of Classical Selections |
|-------|------------------------------|--------------------------------|
| + 5 or above | 7 | 14 |
| + 4.99 to .00 | 21 | 14 |
| Negative | 2 | 2 |

The selection with the highest mean from Type B was Selection 33 (The Boston Symphony Orchestra playing Schubert's "Symphony Number Eight in B Minor".) This was rated as "terrific" with a mean of +7.64. At the other extreme, the selection with the lowest mean score was Selection 10 (the jazz scat singing of Ann Richards). It had a negative mean of -6.00, a rating of "terrible."

Type B's 15 Best Liked
Selections

More than any of the other typologies, Type B liked classical music. Ten of Type B's 15 best liked selections were from the classical realm of music. In addition, all four of Type B's best liked selections were classical.

Type B particularly enjoyed the more "traditional" kinds of classical music. With one exception (a contemporary symphony written by Shostakovich), all of the 10 best

liked classical selections were compositions written prior to the twentieth century.

Type B seems to prefer instrumental, rather than vocal music. Eleven of the 15 best liked selections are instrumental. Only four are vocals (two classical and two popular). One of the classical vocals is the opera selection "La donna è mobile" sung by Richard Tucker.

In general, the 15 selections tend to be "quiet sounding," rather than "lively." A notable exception to this is Type B's high approval of the marching band selection: "The Washington Post March."

Two of the 15 best liked selections were violin concertos (one written by Mendelssohn and the other by Tchaikovsky). Since only three of the 30 classical selections prominently featured a violin solo, this indicates a tendency for Type B to particularly enjoy this kind of classical music.

Two of the best liked selections were piano concertos (one written by Rachmaninoff and the other by Grieg). Since only three of the 30 classical selections prominently featured the piano, this also indicates a tendency for Type B to react favorably to this kind of classical music.

Type B's liking for traditional symphonic orchestra music is demonstrated by its high regard for three pieces of music: the number one selection (written by Mozart), the number three selection (written by Schubert), and the number 11 selection (an orchestral suite written by Bach).

TABLE 26.--Type B's 15 best liked selections.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 1 | The Philadelphia Orchestra plays Mozart's "Eine Kleine Nachtmusik" (49) | 1.37 |
| 2 | The Regensburg Cathedral Choir sings a motet by Palestrina (31) | 1.32 |
| 3 | The Boston Symphony Orchestra plays Schubert's "Symphony Number Eight in B Minor" (33) | 1.29 |
| 4 | Artur Rubinstein, accompanied by the Chicago Symphony Orchestra, plays Rachmaninoff's "Concerto Number Two in C Minor" (45) | 1.27 |
| 5 | Tennessee Ernie Ford sings "The Old Rugged Cross" (50) | 1.23 |
| 6 | Mantovani's Orchestra plays "If I Loved You" (56) | 1.23 |
| 7 | The National Symphony Orchestra plays Dimitri Shostakovich's "Symphony Number Five" (35) | 1.10 |
| 8 | Isaac Stern plays Mendelssohn's "Concerto in E Minor for Violin and Orchestra" (27) | 1.10 |
| 9 | The Eastman Marching Band plays "The Washington Post March" (12) | .94 |
| 10 | Isaac Stern plays Tchaikovsky's "Violin Concerto in D Major" (57) | .89 |
| 11 | The Philharmonia Orchestra plays Bach's "Orchestral Suite Number One in C Major" (39) | .82 |
| 12 | Mitch Miller's Chorus sings "I'm Looking Over a Four Leaf Clover" (48) | .80 |
| 13 | The Hawaiian Islanders play "Song of the Islands" (38) | .78 |
| 14 | Richard Tucker sings Verdi's "La donna è mobile" (25) | .77 |
| 15 | Leon Fleisher, accompanied by the Cleveland Orchestra, plays Grieg's "Concerto in A Minor for Piano and Orchestra" (15) | .69 |

A Palestrina motet (Selection 31) is ranked second in Type B's list of top favorites. Surprisingly, however, the other Gregorian chant used in the study (Selection One, a vocal by a choir of monks) was one of the 15 least liked selections.

Of the five best liked popular selections, none was a recent hit parade selection. One of the selections (featuring Mantovani's Orchestra) had been categorized as "sophisticated" popular music in our factor analysis of the 60 selections of music. In addition, the reactions toward this selection had been found to be "somewhat" similar to the reactions toward all 30 of the classical selections used in the study.

The remaining four of Type B's best liked popular selections had been categorized as "older" popular music in our factor analysis of the 60 selections of music. The best liked popular selection was the Hymn by Tennessee Ernie Ford. It was ranked fifth. The marching band selection was ranked ninth. The Mitch Miller sing-a-long chorus selection was ranked twelfth. The Hawaiian instrumental was thirteenth.

Selections Type B Liked More
Than the Other Typologies

An examination of the selections that Type B liked considerably more than any of the other typologies, reaffirmed that Type B particularly enjoyed "traditional" classical music. All seven selections are pre-Twentieth Century classical pieces of music.

Again, a preference for instrumental music and violin music was indicated. Five of the selections were instrumentals and two were vocals. Two of the instrumentals (one composed by Tchaikovsky and the other by Beethoven) prominently feature a violin solo. Two other instrumentals (one composed by Mozart and the other by Schubert) were symphonic orchestra selections.

TABLE 27.--Selections Type B liked "considerably more" than did any of the other typologies. (For these selections, the standard scores on Type B are at least .5 higher than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| Tchaikovsky's "Violin Concerto in D Major" (57) | -1.17 | .89 | -.84 | -1.00 |
| Beethoven's "String Quartet in E Minor" (51) | -1.30 | .32 | -.83 | -1.00 |
| The New York Pro Musica sings Byrd's "...Merry Month of May" (13) | -.70 | .42 | -1.56 | -1.16 |
| Mozart's "Eine Kleine Nachtmusik" (49) | -.77 | 1.37 | .02 | .50 |
| Bach's organ "Fugue in C Major" (9) | -.75 | .50 | -.11 | -1.00 |
| Schubert's "Symphony Number 8 in B Minor" (33) | -.55 | 1.29 | .38 | .72 |
| The Vienna Chorus sings Verdi's "Requiem" (37) | -1.27 | .25 | -1.08 | -.27 |

Type B's 15 Least Liked
Selections

Of the 15 least liked selections, seven were from Popular music and eight were from classical music. There

were seven vocals (three popular and four classical) and eight instrumentals (four popular and four classical).

All three of the "opera-sounding" soprano vocals, used in the study, were among the 15 least liked selections. (These were the selections composed by Schoenberg, Wagner, and Varese.) In addition, four "contemporary-sounding" instrumentals (two composed by Webern, one by Stravinsky, and one by Debussy) were among the least liked pieces of music.

Among the seven least liked popular selections, four of the selections were from the musical idiom of jazz. The jazz scat singing of Ann Richards was the most strongly rejected by Type B of any of the 60 selections used in the study. Both of the "dixieland-sounding" selections (featuring The Dukes of Dixieland and the Paul Whiteman Orchestra), as well as the Dave Brubeck instrumental, were among the least liked pieces of music.

In addition, the rock-and-roll selection by Freddie Cannon was very strongly rejected. The lively vocal by Frank Sinatra was also among the least liked selections.

It is rather surprising that two selections (a Gregorian chant and a popular piano instrumental) are among Type B's 15 least liked selections.

Selection One (featuring the Choir of the Monks at the Abbey of St. Pierre) was among the 11 least liked selections. The "pair" to this selection (Selection 31: featuring the Regensburg Cathedral Choir) ranked second

among the best liked selections. Further, with the exception of Selection One, all four of the other vocals with religious themes, used in the study, were "liked" by Type B. Apparently, the "ordering" of the selections affected the ratings given to the first selection by many of the subjects who held membership in Type B.

TABLE 28.--Type B's 15 least liked selections.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 60 | Backed by Stan Kenton, Ann Richards sings "No Moon at All" (10) | -3.63 |
| 59 | Bethany Beardslee sings Arnold Schoenberg's "Pierrot Lunaire" (59) | -2.81 |
| 58 | Freddie Cannon sings "Palisades Park" (24) | -2.33 |
| 57 | The Columbia Orchestra plays Anton Webern's "Six Pieces for Orchestra" (17) | -1.89 |
| 56 | The Dukes of Dixieland play "Runnin' Wild" (30) | -1.24 |
| 55 | Elisabeth Schwarzkopf sings music from Wagner's "Lohengrin" (55) | -1.08 |
| 54 | The Columbia Symphony Orchestra plays Anton Webern's "Six Pieces for Orchestra" (47) | -1.02 |
| 53 | Pianist, Bent Fabric plays "Alley Cat" (2) | - .99 |
| 52 | Paul Whiteman's Orchestra plays "The Wang, Wang, Blues" (6) | - .98 |
| 51 | Dave Brubeck's Quartet plays "Take Five" (40) | - .91 |
| 50 | A selection by the Choir of the Monks at the Abbey of St. Pierre (1) | - .91 |
| 49 | Frank Sinatra sings "Five Minutes More" (22) | - .84 |
| 48 | Donna Praycht, accompanied by the Columbia Symphony Orchestra, sings Edgar Varese's music for "Soprano and Chamber Orchestra" (29) | - .75 |
| 47 | The Columbia Symphony Orchestra plays Stravinsky's "The Rite of Spring" (5) | - .66 |
| 46 | The Philadelphia Orchestra plays Debussy's "La Mer" (23) | - .64 |

Selection Two (the recent hit parade instrumental by pianist Bent Fabric titled "Alley Cat") was the other "surprise" among Type B's least liked selections. It ranked eighth from the bottom of Type B's least liked pieces of music. At the same time, Type B had positive standard scores for the four other piano instrumentals used in the study (three classical selections and one popular honky-tonk piano selection). Thus, the low ranking of Selection Two ("Alley Cat" played by Bent Fabric) by Type B (the oldest of the four typologies) seems to be more of a reaction toward the name of the artist and/or the name of the selection, rather than toward the musical characteristics of the selection itself.

Selections Type B Liked Less
Than the Other Typologies

There were ten selections that Type B liked considerably less than any of the other typologies. Only two were classical selections (one instrumental and one vocal). Eight were popular selections (six instrumentals and two vocals).

Both of the classical selections were from the Contemporary era. (One was a vocal written by Schoenberg and the other a small ensemble work composed by Webern.)

The eight popular pieces of music included four of the five jazz tunes used in the study (performances by Ann Richards, Dave Brubeck, The Dukes of Dixieland, and Saul Goodman). The other four selections had been categorized

as "sophisticated" popular music in our factor analysis of the 60 pieces of music. These were selections by Bent Fabric, Jackie Gleason, Stanley Black, and The Four Lads.

TABLE 29.--Selections Type B liked "considerably less" than did any of the other Typologies. (For these selections, the standard scores on Type B are at least .5 lower than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Ann Richards sings "No Moon at All" (10) | -.10 | -3.63 | - .34 | .99 |
| Pianist, Bent Fabric plays "Alley Cat" (2) | 1.36 | - .99 | .62 | .44 |
| Dave Brubeck's Quartet plays "Take Five" (40) | .88 | - .91 | .49 | 2.54 |
| Bethany Beardslee sings Schoenberg's "...Lunaire" (59) | -1.67 | -2.81 | -1.09 | - .16 |
| Drummer, Saul Goodman plays "Tympania" (36) | .47 | - .57 | .38 | 1.82 |
| Jackie Gleason's Orchestra plays "But Not For Me"(26) | .82 | - .11 | 1.84 | .71 |
| The Dukes of Dixieland play "Runnin' Wild" (30) | .68 | -1.24 | .38 | -.56 |
| Webern's "Six Pieces for Orchestra" (17) | -1.22 | -1.89 | .01 | .33 |
| Stanley Black's Orchestra plays "Granada" (8) | .93 | .36 | 1.47 | 2.05 |
| The Four Lads sing "No Not Much" (46) | 1.02 | .23 | .75 | 1.28 |

Type B and the Adjective
Check List

We examined the adjective check lists of the ten persons who had their highest factor loadings on Type B and hence were most representative of the persons in Type B.

We compiled a list of the adjectives these persons most
frequently mentioned in describing Type B's 10 best liked
and 10 least liked selections (as determined by the stan-
dard scores).

Type B's 10 best liked selections included seven
classical and three popular pieces of music.  The 10 least
liked selections included four classical and six popular
pieces of music.

TABLE 30.--Type B's 10 best liked and least liked selections.
(Each adjective potentially could have been mentioned 100
times.)

| 10 Best Liked Selections | | | 10 Least Liked Selections | | |
|---|---|---|---|---|---|
| Rank Order | Adjectives | No. of Mentions | Rank Order | Adjectives | No. of Mentions |
| 1 | Familiar | 70 | 1 | Noisy | 44 |
| 2 | Majestic | 61 | 2 | Weird | 32 |
| 3 | Serious | 55 | 3 | Rhythmic | 31 |
| 4 | Relaxing | 53 | 4 | Danceable | 31 |
| 5 | Rhythmic | 51 | 5 | Tiring | 30 |
| 6 | Graceful | 48 | 6 | Shrill | 28 |
| 7 | Rich | 47 | 7 | Familiar | 27 |
| 8 | Stimulating | 40 | 8 | Monotonous | 25 |
| 9 | Understandable | 40 | 9 | Complicated | 24 |
| 10 | Old | 38 | 10 | Gay | 23 |
| 10 | Smooth | 38 | | | |

To describe the 10 best liked selections, the adjective
"familiar" was most commonly used.  In a majority of cases,
these selections were described as:  familiar, majestic,
serious, relaxing, and rhythmic.

To describe the 10 least liked selections, no adjective
was used in a majority of cases.  However, the word most com-
monly used to describe Type B's least liked selections was
"noisy."

Two adjectives (familiar and rhythmic) appeared in both the lists of the best liked and least liked selections. However, both words were used much more frequently to describe the best liked, rather than the least liked selections.

## Type C Persons (the Semi-Classical Typology)

Type C represented the preferences of 19% of the Lansing area population age 12 and over.

Seven of the 49 subjects had preference patterns which were most similar to those of Type C. Three of these persons were males, while four were females.

Age.--Type C was the next to the oldest of the four typologies. The mean average age was 38.3 years old. Five of the seven persons in Type C were in the "middle-age" group (between 23 and 49 years old). One person was in the youngest age group (12-22), while one other person was in the oldest age group (age 50 or above).

Education.--Type C had the highest average level of formal education with a mean average of 14.9 years of schooling completed (2.9 years of college). Type C contained six "adults" (all of whom had completed two or more years of college). There was also one "student" in Type C--a college undergraduate.

Music background.--Type C ranked highest, among the typologies, in terms of previous music experience--as a

performer or student. Four persons had "high" music backgrounds. Two persons had "medium" music backgrounds. Only one person had a "low" music background.

Music knowledge.--Type C had the next to the highest score on the "music notation test" of formal music terminology (second only to Type B--the classical typology). They had a mean average score of 5.4 correct answers out of a possible perfect score of nine (just .4 less than Type B).

## Mean Scores of Type C Toward Each of the 60 Selections

Generally speaking, the mean scores indicate that the seven persons in Type C liked certain kinds of popular music just slightly more than certain kinds of classical music.

However, Type C persons were more frugal than any of the other typologies in exhibiting great enthusiasm for particular selections. Only 11 selections (six popular and five classical) received mean scores of +5 or more.

On the other hand, except for Type A (which rated 30 selections "negatively"), Type C rated more selections "negatively" than any of the other typologies. Eight selections (three popular and five classical) had negative mean scores from Type C persons.

The selection with the highest mean score, for the seven persons in Type C, was Selection 45 (pianist Artur

Rubinstein playing Rachmaninoff's "Concerto Number Two in C Minor"). That selection received a "terrific" mean score of +8.14. The lowest mean score of -4.29 was for Selection 24 (Freddie Cannon's rock-and-roll vocal: "Palisades Park").

TABLE 31.--The seven persons in Type C. Distribution of the means for the 60 selections on the 21 point rating scale.

| Means | Number of Popular Selections | Number of Classical Selections |
|-------|------------------------------|--------------------------------|
| +5 or above | 6 | 5 |
| +4.99 to .00 | 21 | 20 |
| Negative | 3 | 5 |

Type C's 15 Best Liked
Selections

In earlier discussions, we have referred to Type C as the "semi-classical" typology. This is because Type C particularly enjoyed the more "sophisticated" kinds of popular music, but also had numerous classical favorites. Among the classical favorites were some of the "less conventional" orchestra selections.

Type C liked popular music slightly more than classical music. Eight of its 15 best liked selections were from the "popular" idiom. Sixteen of the 30 best liked were "popular."

Type C indicated a greater interest in instrumental, rather than vocal music. Of its 11 best liked selections, only one is a vocal (the showtune by Julie Andrews). There are only three other vocals among Type C's 15 best liked selections (Frank Sinatra singing "Five Minutes More," The

Four Lads singing "No Not Much," and the well-known operatic selection "La donna è mobile" sung by Richard Tucker).

TABLE 32.--Type C's 15 best liked selections.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 1 | Pianist, Artur Rubinstein plays Rachman- inoff's "Concerto Number Two in C Minor" (45) | 1.96 |
| 2 | The Jackie Gleason Orchestra plays "But Not For Me" (26) | 1.84 |
| 3 | Julie Andrews sings "I Could Have Danced All Night" (18) | 1.72 |
| 4 | Mantovani's Orchestra plays "If I Loved You" (56) | 1.48 |
| 5 | Stanley Black's Orchestra plays "Granada" (18) | 1.47 |
| 6 | The Philadelphia Orchestra plays Debussy's "La Mer" (23) | 1.35 |
| 7 | Warren Covington, conducting the Tommy Dorsey Band, playing "In the Mood" (52) | 1.11 |
| 8 | The Philadelphia Orchestra plays Debussy's "Afternoon of a Faun" (53) | .99 |
| 9 | The Columbia Symphony Orchestra plays Stravinsky's "The Rite of Spring" (5) | .87 |
| 10 | The Boston Symphony Orchestra plays Brahms' "Symphony Number Four in E Minor" (3) | .87 |
| 11 | Pianist, Leon Fleisher plays Grieg's "Concerto in A Minor for Piano and Orchestra" (15) | .87 |
| 12 | Richard Tucker sings Verdi's "La donna è mobile" (25) | .86 |
| 13 | Frank Sinatra sings "Five Minutes More" (22) | .86 |
| 14 | The Four Lads sing "No Not Much" (46) | .75 |
| 15 | The Paul Whiteman Orchestra plays "The Wang, Wang, Blues" (6) | .74 |

Type C's preference for "sophisticated" popular music is shown by the fact that seven of its eight best liked popular selections were categorized in that manner in our factor

analysis of the 60 pieces of music. (These were selections featuring Jackie Gleason, Julie Andrews, Mantovani, Stanley Black, Warren Covington, Frank Sinatra, and The Four Lads.) The one other popular selection ranked highly by Type C (but not categorized as "sophisticated" in our factor analysis of 60 selections) was the vintage, dixieland, selection "Wang, Wang, Blues" by the Paul Whiteman Orchestra which ranked fifteenth on Type C's list of 15 favorites.

Of Type C's seven best liked classical selections, three belonged to the Twentieth Century school of music. (Both of the Impressionistic orchestra selections written by Debussy--"La Mer" and "Afternoon of a Faun"--plus Stravinsky's "The Rite of Spring" were very well liked.)

The other four classical favorites belonged to the Romantic era in classical music. Both of the piano concertos used in the study (one written by Rachmaninoff and the other by Grieg), a symphony written by Brahms, and the well-known operatic selection "La donna è mobile"--were among Type C's 15 best liked selections.

Selections Type C Liked More
Than the Other Typologies

An examination of the selections that Type C liked considerably more than any of the other typologies, reaffirms Type C's greater interest in: (1) sophisticated popular music, (2) twentieth century classical music, and (3) instrumentals.

There were six such selections. Four of these were classical pieces of music (all instrumentals). Two of the selections were from popular music (one instrumental and one vocal).

Both of the popular selections had been categorized as "sophisticated" in our factor analysis of the 60 selections. One was a showtune by Julie Andrews; the other was a quiet instrumental by The Jackie Gleason Orchestra.

Three of the four classical selections were twentieth century orchestral works. (Two were composed by Debussy and one by Stravinsky.) The remaining selection was a Romantic era concerto composed by Rachmaninoff.

TABLE 33.--Selections Type C liked "considerably more" than did any of the other typologies. (For these selections, the standard scores on Type C are at least .5 higher than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Julie Andrews sings "I Could Have Danced All Night" (18) | .37 | .49 | 1.72 | .37 |
| Debussy's "La Mer" (23) | -1.23 | -.64 | 1.35 | .28 |
| Debussy's "Afternoon of a Faun" (53) | -1.16 | -.58 | .99 | -.12 |
| Jackie Gleason's Orchestra plays "But Not For Me" (26) | .82 | -.11 | 1.84 | .71 |
| Igor Stravinsky's "The Rite of Spring" (5) | -.75 | -.66 | .87 | .17 |
| Rachmaninoff's piano "Concerto Number Two in C Minor" (45) | -.85 | 1.27 | 1.96 | 1.22 |

Type C's 15 Least Liked
Selections

Again, Type C indicated a definite preference for
instrumental music, rather than vocals. All 12 of the
least liked selections were vocals. Thirteen of the 15
least liked selections were vocals.

Nine of the least liked selections were from class-
ical music. Six of the selections were from popular music.

Type C displayed a decided disinterest in classical
violin music. The only two instrumentals appearing in
Type C's list of 15 least liked selections both prominently
featured a violin solo (a Tchaikovsky violin concerto and
a Beethoven string quartet).

All three of the "opera-sounding" soprano vocals,
used in the study, were among Type C's least liked selec-
tions. (These were the selections composed by Schoenberg,
Wagner, and Varese.)

Four classical "choral" selections were among the 15
least liked selections. One was the madrigal sung by the
New York Pro Musica. The other three had religious themes.
(One was a Verdi "Requiem." The second was sung by the
Choir of the Monks at the Abbey of St. Pierre. And the
third selection was sung by the Regensburg Cathedral Choir.)

The only popular selection with a religious theme,
the Hymn by Tennessee Ernie Ford, was also among the least
liked selections--sixth from the bottom of Type C's rankings.

Of the six least liked popular selections, four were
recent hit parade vocals. The rock-and-roll song by Freddie

TABLE 34.--Type C's 15 least liked selections.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 60 | Freddie Cannon sings "Palisades Park" (24) | -2.90 |
| 59 | Johnny Horton sings "North to Alaska" (20) | -2.42 |
| 58 | Frankie Yankovic's Chorus sings "The Pennsylvania Polka" (44) | -2.18 |
| 57 | The New York Pro Musica sing Byrd's madrigal "The Sweet and Merry Month of May" (13) | -1.56 |
| 56 | The Lettermen sing "When I Fall in Love" (16) | -1.31 |
| 55 | Tennessee Ernie Ford Sings "The Old Rugged Cross" (50 | -1.20 |
| 54 | Bethany Beardslee sings Arnold Schoenberg's "Pierrot Lunaire" (59) | -1.09 |
| 53 | The Vienna Society of the Friends of Music chorus sings a selection from Verdi's "Requiem" (37) | -1.08 |
| 52 | The Kingston Trio sings "Tom Dooley" (54) | - .95 |
| 51 | Elisabeth Schwarzkopf sings music from Wagner's "Lohengrin" (55) | - .85 |
| 50 | The Regensburg Cathedral Choir sings a motet by Palestrina (31) | - .84 |
| 49 | A selection by the Choir of the Monks at the Abbey of St. Pierre (1) | - .84 |
| 48 | Isaac Stern plays Tchaikovsky's "Violin Concerto in D Major" (57) | - .84 |
| 47 | Donna Praycht, accompanied by the Columbia Symphony Orchestra, sings Edgar Varese's music for "Soprano and Chamber Orchestra" (29) | - .84 |
| 46 | The Amedeus String Quartet plays Beethoven's "String Quartet in E Minor" (51) | - .83 |

Cannon was strongly rejected and at the very bottom of the list. The country-and-western song by Johnny Horton was also very strongly rejected. The "non-raucous" ballad by The Lettermen was strongly rejected; and the folk song by the Kingston Trio was substantially rejected.

In addition, the polka by Frankie Yankovic's Chorus was one of the three least liked selections and very strongly rejected.

## Selections Type C Liked Less Than the Other Typologies

There were five selections that Type C liked considerably less than any of the other typologies. All five were vocals.

Four of the five selections were recent hit parade songs. The only selection that was not a recent hit parade song was the polka by the Frankie Yankovic Chorus.

TABLE 35.--Selections Type C liked "considerably less" than did any of the other typologies. (For these selections, the standard scores on Type C are at least .5 lower than on the next closest typology.)

| Description and Selection Number | Standard Scores of the Types | | | |
| --- | --- | --- | --- | --- |
| | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| Johnny Horton sings "North to Alaska" (20) | 1.40 | -.17 | -2.42 | .99 |
| Frankie Yankovic's Chorus sings "The Pennsylvania Polka" (44) | .79 | .29 | -2.18 | -.57 |
| The Lettermen sing "When I Fall in Love" (16) | 1.30 | .16 | -1.31 | 1.28 |
| The Kingston Trio sings "Tom Dooley" (54) | 1.39 | .00 | - .95 | .72 |
| Freddie Cannon sings "Palisades Park" (24) | 1.33 | -2.33 | -2.90 | 1.28 |

## Type C and the Adjective Check List

For Types A and B we used the adjective check lists of the 10 persons with the highest factor loadings on

those types in our discussion of the most frequently used adjectives. Since Type C contained only seven persons, we examined the adjectives used by the seven persons whose preference patterns placed them in Type C. We compiled a list of the adjectives these seven persons most frequently mentioned in describing their 10 best liked and 10 least liked selections (as determined by the standard scores).

Type C's 10 best liked selections included five classical and five popular pieces of music. The 10 least liked selections included four classical and six popular pieces of music.

TABLE 36.--Type C's 10 best liked and least liked selections. (Each adjective could potentially have been mentioned 70 times.)

| 10 Best Liked Selections | | | 10 Least Liked Selections | | |
|---|---|---|---|---|---|
| Rank Order | Adjectives | No. of Mentions | Rank Order | Adjectives | No. of Mentions |
| 1 | Familiar | 48 | 1 | Familiar | 34 |
| 2 | Graceful | 36 | 2 | Tiring | 21 |
| 3 | Relaxing | 34 | 3 | Singable | 20 |
| 4 | Smooth | 33 | 4 | Monotonous | 20 |
| 5 | Stimulating | 24 | 5 | Noisy | 17 |
| 5 | Rich | 24 | 6 | Complicated | 15 |
| 5 | Understandable | 24 | 6 | Rhythmic | 15 |
| 5 | Rhythmic | 24 | 8 | Understandable | 14 |
| 9 | Singable | 18 | 9 | Serious | 14 |
| 10 | Gay | 18 | 10 | Sentimental | 13 |

To describe the 10 best liked selections, the adjective "familiar" was most commonly used. In a majority of cases, these selections were described as: familiar and graceful.

To describe the 10 least liked selections, no adjective was used in a majority of cases. However, the word most commonly used to describe Type C's least liked selections was "familiar."

Three adjectives (familiar, understandable, and rhythmic) appeared in both the lists of the best liked and least liked selections. However, each adjective was used more often to describe the best liked, rather than the least liked selections.

## Type D Persons (the Quasi-Hit Parade Typology)

Type D represented the preferences of only 3% of the Lansing area population age 12 and over.

Only three of the 49 subjects had preference patterns which were most similar to those of Type D. One was a male and the other two were females.

Age.--Type D was the youngest of the four typologies. The mean average age was only 18.7 years. All three persons in the typology were in the youngest age group (12-22 years old).

Education.--Type D was the next to the lowest, among the four types, in terms of the amount of formal education completed. (Only Type A--the hit parade typology--was lower.) The mean average years of schooling completed was 12.3 years. All three persons in Type D were "students." Two were college undergraduates.

Music background.--Type D ranked lowest in the amount of previous music experience. Of the three persons in Type D, two had "low" music backgrounds, one had a "medium" music background, and none had a "high" music background.

Music knowledge.--Type D had the next to the lowest score on the "music notation test" of formal music terminology--with a mean average score of 3.7 correct answers out of a possible nine correct answers. Only Type A (the hit parade and anti-classical typology) scored lower on this test.

**Mean Scores of Type D Toward Each of the 60 Selections**

The mean scores indicate that the three persons in Type D showed more "agreeableness" to the 60 selections of music than any of the other typologies.

Twenty-eight selections (14 popular and 14 classical) received very high means of +5 or more. No other typology indicated such enthusiasm for so many selections. (Type B had 21 such selections, Type A had 20, and Type C had eight.)

On the other hand, only three selections (two popular and one classical) received "negative" mean scores from the persons in Type D. No other typology rated so few selections "negatively." (Type B had four such selections, Type C had eight, and Type A had 30.)

The selection with the highest mean score from the three persons in Type D was the jazz instrumental by Dave

Brubeck: "Take Five" (Selection 40). It had an exceptionally high "terrific" mean score of +9.00. The lowest mean score was only -1.67 given to Selection 48 (featuring Mitch Miller's sing-a-long chorus).

TABLE 37.--The three persons in Type D. Distribution of the means for the 60 selections on the 21 point rating scale.

| Means | Number of Popular Selections | Number of Classical Selections |
|-------|------------------------------|--------------------------------|
| +5 or more | 14 | 14 |
| +4.99 to .00 | 14 | 15 |
| Negative | 2 | 1 |

Type D's 15 Best Liked
Selections

Type D has been referred to in this thesis as the "quasi-hit parade" typology. This is because its favorites ranged from recent hit parade music (including rock-and-roll) to classical music.

Nine of Type D's 15 best liked selections were from popular music, while six were classical pieces of music. Eight of the selections were instrumentals (four popular and four classical), while seven were vocals (five popular and two classical).

Of the nine best liked popular selections, four were recent hit parade songs: Dave Brubeck's jazz instrumental "Take Five," The Lettermen's "non-raucous" ballad "When I Fall in Love," Freddie Cannon's rock-and-roll song "Palisades

Park," and Johnny Horton's country-and-western song "North to Alaska."

TABLE 38.--Type D's 15 best liked selection.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 1 | Dave Brubeck's Quartet plays "Take Five" (40) | 2.54 |
| 2 | Stanley Black's Orchestra plays "Granada" (8) | 2.05 |
| 3 | Saul Goodman plays "Tympania" (36) | 1.82 |
| 4 | The Lettermen sing "When I Fall in Love" (16) | 1.28 |
| 5 | Freddie Cannon sings "Palisades Park" (24) | 1.28 |
| 6 | The Four Lads sing "No Not Much" (46) | 1.28 |
| 7 | Pianist, Artur Rubinstein plays Rachmaninoff's "Concerto Number Two in C Minor" (45) | 1.22 |
| 8 | Mantovani's Orchestra plays "If I Loved You" (56) | 1.21 |
| 9 | The Regensburg Cathedral Choir sings a motet by Palestrina (31) | 1.11 |
| 10 | A selection by the Choir of the Monks at the Abbey of St. Pierre (1) | 1.06 |
| 11 | Backed up by Stan Kenton, Ann Richards sings "No Moon At All" (10) | .99 |
| 12 | Johnny Horton sings "North to Alaska" (20) | .99 |
| 13 | The Columbia Symphony Orchestra plays Anton Webern's "Six Pieces for Orchestra" (Selection 47) | .84 |
| 14 | The National Symphony Orchestra plays Dimitri Shostakovich's "Symphony Number Five" (35) | .82 |
| 15 | The Boston Symphony Orchestra plays Brahms' "Symphony Number Four in E Minor" (3) | .77 |

Type D's strong interest in "jazz-oriented" music was shown by its high ranking of all three "non-dixieland" jazz selections used in the study. The Dave Brubeck jazz instrumental (which was also a hit parade selection) was at the

very top of Type D's list of best liked selections. The
drum solo by Saul Goodman ranked third on Type D's list of
favorites. Even the jazz scat singing of Ann Richards
(which had a negative standard score on the three other typo-
logies) ranked tenth on Type D's list of favorites.

The three jazz selections, just discussed, had been
categorized as "modern, sophisticated" popular music in our
factor analysis of the 60 selections. In addition to these
three selections, three other "sophisticated" selections
were among Type D's list of popular-favorites. This included
the Latin-flavored "Granada" by the Stanley Black Orchestra
(which ranked second), The Four Lads vocal of "No Not Much"
(which ranked sixth), and the Mantovani Orchestra's "If I
Loved You" (which ranked eighth).

The six best liked classical selections ranged in
chronology from very old classical music to twentieth century
classical music. There were two Gregorian chants (one sung
by the Regensburg Cathedral Choir and the other by the Choir
of the Monks at the Abbey of St. Pierre), two Romantic era
instrumentals (one a piano concerto by Rachmaninoff and the
other a Brahms symphony), and two twentieth century selec-
tions (one a small ensemble work written by Webern and the
other a symphony written by Shostakovich).

Selections Type D Liked More
Than the Other Typologies

There are six selections that Type D liked considerably
more than any of the other typologies. Three of the selections

are instrumentals and three are vocals.  Three of the selec-

tions are from popular music and three are from classical

music.

TABLE 39.--Selections Type D liked "considerably more" than
any of the other typologies.  (For these selections, the
standard scores on Type D are at least .5 higher than on
the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| The Dave Brubeck Quartet plays "Take Five" (40) | .88 | -.91 | .49 | 2.54 |
| The Choir of the Monks at the Abbey of St. Pierre(1) | .36 | -.91 | -.84 | 1.06 |
| Drummer, Saul Goodman plays "Tympania" (36) | .47 | -.57 | .38 | 1.82 |
| Ann Richards sings "No Moon At All" (10) | -.10 | -3.63 | -.34 | .99 |
| Webern's "Six Pieces for Orchestra" (47) | -1.22 | -1.02 | -.24 | .84 |
| Bethany Beardslee sings Schoenberg's "Pierrot Lunaire" (59) | -1.67 | -2.81 | -1.09 | -.16 |

All three of the popular selections are jazz tunes
(featuring Dave Brubeck, Ann Richards, and Saul Goodman).
This again indicates Type D's interest in jazz music.

Three of the six selections are from classical music.
One is the "chant" by the Choir of the Monks at the Abbey
of St. Pierre.  The other two are twentieth century class-
ical compositions--one written by Webern and the other by
Schoenberg.

The soprano vocal, written by Schoenberg, was only mildly rejected by Type D.  In contrast, it was Type A's least liked selection, second from the bottom of Type B's ranking of the 60 selections, and sixth from the bottom of Type C's ranking of the selections.

Type D's Least Liked
Selections

Type D tended to least like "older" music--both popular and classical.  Nine of the least liked selections were from popular music, while six were from classical music. Eight of the 15 selections were vocals (five popular and three classical), while seven were instrumentals (four popular and three classical).

With one exception, all nine of Type D's least liked popular selections were categorized as "older" in our factor analysis of 60 selections of music.  In particular, two selections were very strongly rejected (the organ instrumental by Ken Griffin and the sing-a-long chorus of Mitch Miller). The other "older" rejected selections included:  the honky-tonk piano instrumental by Del Wood, the Hymn by Tennessee Ernie Ford, the barbershop quartet vocal by the Buffalo Bills, the marching band selection by the Eastman Marching Band, and the vocal sung by Guy Lombardo's Canadians.

The only other popular selection among Type D's 15 least liked selections was the vocal by Jimmy Durante.  This selection is also "old," but in our factor analysis of the

60 selections it was categorized in a special "lively, old,

novelty" category.

TABLE 40.--Type D's 15 least liked selections.

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 60 | Organist, Ken Griffin plays "Elmer's Tune" (32) | -2.39 |
| 59 | Mitch Miller's chorus sings "I'm Looking Over a Four Leaf Clover" (48) | -2.00 |
| 58 | The Hawaiian Islanders play "Song of the Islands" (38) | -1.67 |
| 57 | Elisabeth Schwarzkopf sings music from Wagner's "Lohengrin" (55) | -1.22 |
| 56 | Richard Tucker sings Verdi's "La donna è mobile" (25) | -1.16 |
| 55 | The New York Pro Musica sings Byrd's madrigal "The Sweet and Merry Month of May" (13) | -1.16 |
| 54 | Pianist, Del Wood plays "Hello My Baby" (60) | -1.06 |
| 53 | Tennessee Ernie Ford Sings "The Old Rugged Cross" (50) | -1.05 |
| 52 | The Buffalo Bills sing "Happy Days Are Here Again" (42) | -1.01 |
| 51 | Isaac Stern plays Tchaikovsky's "Violin Concerto in D Major" (57) | -1.00 |
| 50 | The Amedeus String Quartet plays Beethoven's "String Quartet in E Minor" (51) | -1.00 |
| 49 | Organist, E. Power Biggs plays Bach's "Fugue in C Major" (9) | -1.00 |
| 48 | The Eastman Marching Band plays "The Washington Post March" (12) | - .83 |
| 47 | Guy Lombardo's Royal Canadians sing "Wonderful, Wonderful, Copenhagen" (4) | - .83 |
| 46 | Jimmy Durante sings "You Gotta Start Off Each Day with a Song" (28) | - .79 |

All six of the least liked classical selections are

pre-twentieth century compositions. None is a symphonic

selection. Two of the classical selections are operatic pieces (one features Elisabeth Schwarzkopf singing music from Wagner's "Lohengrin" and the other features Richard Tucker singing Verdi's "La donna è mobile"). Two of the selections prominently spotlight a violin solo (one written by Tchaikovsky and the other by Beethoven). One selection is a madrigal choral work (Byrd's "The Sweet and Merry Month of May") and one selection is an organ fugue written by Bach.

## Selections Type D Liked Less Than the Other Typologies

There are nine selections that Type D liked considerably less than any of the other typologies. All nine are popular selections (five are vocals and four are instrumentals).

Eight of the nine selections were categorized as "old" popular music in our factor analysis of the 60 selections. The only one that was not so-categorized was the Jimmy Durante vocal which was categorized as a "lively, old, novelty" in that factor analysis.

Recognizing that Type D is the youngest, by far, of the four typologies, it is not surprising to find its least liked selections being "old."

TABLE 41.--Selections Type D liked "considerably less" than did any of the other typologies. (For these selections, the standard scores on Type D are at least .5 lower than on the next closest typology.)

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| Ken Griffin plays "Elmer's Tune" (32) | 1.15 | .49 | -.11 | -2.39 |
| Mitch Miller's sing-along chorus sings "I'm Looking Over a Four Leaf Clover" (48) | 1.08 | .79 | -.34 | -2.00 |
| Del Wood's honky-tonk piano plays "Hello My Baby" (60) | 1.05 | .28 | .14 | -1.06 |
| The Eastman Marching Band playing "The Washington Post March" (12) | .98 | .94 | .26 | - .83 |
| The Buffalo Bills sing "Happy Days Are Here Again" (43) | .94 | .26 | .02 | -1.01 |
| Guy Lombardo's Chorus sings "Wonderful, Wonderful, Copenhagen" (4) | .60 | .19 | .14 | - .83 |
| The Hawaiian Islanders play "Song of the Islands" (38) | 1.12 | .78 | -.72 | -1.67 |
| Jimmy Durante sings "You Gotta Start Off Each Day With a Song" (28) | .92 | .12 | .62 | - .79 |
| Russ Morgan sings "So Tired" (34) | .65 | .00 | .14 | - .73 |

Type D and the Adjective
Check List

Type D contained only three persons. We examined the adjective check lists of the three persons in the typology.

Type D's 10 best liked selections included three class-ical and seven popular pieces of music. The 10 least liked

selections included four popular and six classical pieces of music.

No adjective was used in a majority of cases to describe either the best liked or the least liked selections. However, the words most commonly used to describe the 10 best liked selections were: familiar, rhythmic, and graceful. The words most commonly used to describe the 10 least liked selections were: gay and rhythmic.

Four adjectives (rhythmic, graceful, smooth, and serious) appeared in both the lists of the best liked and least liked selections. However, all four words were used more frequently to describe the best liked, rather than the least liked selections.

TABLE 42.--Type D's 10 best liked and least liked selections. (Each adjective could potentially have been mentioned 30 times.)

| 10 Best Liked Selections | | | 10 Least Liked Selections | | |
|---|---|---|---|---|---|
| Rank Order | Adjectives | No. of Mentions | Rank Order | Adjectives | No. of Mentions |
| 1 | Familiar | 14 | 1 | Gay | 9 |
| 1 | Rhythmic | 14 | 1 | Rhythmic | 9 |
| 1 | Graceful | 14 | 3 | Graceful | 8 |
| 4 | Rich | 13 | 4 | Monotonous | 7 |
| 5 | Smooth | 12 | 5 | Old | 6 |
| 6 | Serious | 9 | 5 | Serious | 6 |
| 6 | Stimulating | 9 | 5 | Smooth | 6 |
| 6 | Relaxing | 9 | 8 | Cheap | 5 |
| 9 | Majestic | 7 | 9 | Noisy | 4 |
| 10 | Danceable | 6 | 9 | Relaxing | 4 |
| | | | 9 | Gloomy | 4 |

## Comparing the Preferences of the Typologies

We have just discussed, in detail, the preferences of each of the four typologies. Each typology has said, in effect, that given the choice of hearing any of the 60 selections used in the study, he would rather hear a particular array of selections and would have less interest in hearing another array of selections.

In this section, we shall compare the reactions of the four typologies to the 60 selections of music--pointing out areas of typological agreement (the better liked and the lesser liked selections) and areas of "controversy" (differences of opinion between the typologies).

The primary basis of comparison will be the standard scores for each selection on each typology. Selections with positive standard scores were among the better liked selections by each typology; while selections with negative standard scores were among the lesser liked selections by each typology.

In making these comparisons, we shall attempt to ferret out the kinds of information which would be most useful to the radio music programmer. For this reason, we shall be principally concerned with preference comparisons involving the three major typologies (Types A, B, and C) which represent the preference rankings of 97% of the Lansing area audience, age 12 or over. From the standpoint of the radio programmer, the preferences of Type D (the quasi-hit parade typology) are not very important. Type D represents

the preferences of 3% of the Lansing area population, age 12 or over--and is, by far, the youngest of the four types with an average age of only 18.3 years. In contrast, Type A (the hit parade and anti-classical typology) represents 48%, Type B (the classical typology) 30%, and Type C (the semi-classical) typology 19%.

Our first series of typological preference comparisons will involve the examination of the "consensus agreement" selections. There are 11 such selections--all from the realm of popular music. The various degrees, the three major typologies tended to "like" these 11 selections, i.e., had positive standard scores on these pieces of music. The radio music programmer can somewhat safely assume that when he plays music similar to these selections, it will generally meet with the approval of most members of his audience.

Secondly, for the benefit of classical music programmers, we will discuss those classical selections which were "liked" by those two major typologies that indicated an interest in classical music (Type B and C, representing 49% of the Lansing area audience age 12 and over). There were 13 such classical selections which had positive standard scores on both of these typologies. By playing music similar to these selections, a classical music station should be able to maximize its audience, since these selections elicited favorable reactions from the two largest typologies which enjoy that kind of music.

Third, we will review the six selections which all three of the major typologies placed among their lesser liked selections. All six of these selections (five classical and one popular) had negative standard scores on Types A, B, and C. A music programmer who scheduled selections like these would find little audience interest in such programming--and indeed, would tend to alienate the vast majority of the potential audience away from his programming.

Fourth, we will examine the "controversial" kinds of music. This will involve a preference comparison of the remaining 30 selections used in the study (18 popular selections and 12 classical selections). For these 30 selections, the typological reactions were "mixed"--with each selection having a positive standard score on at least one of the major typologies, and a negative standard score on at least one of the three major typologies.

For purposes of discussion, the author has grouped these "controversial" selections into categories. These categories are based on: (1) general interest, and (2) pertinency to programming. In a few instances, non-controversial selections (that have been previously mentioned in this section) will be included in the discussion of these controversial categories. This is because these few selections "fit" into the categories that are being discussed.

The following categories of controversial selections will be discussed: (1) Religious vocals and instrumentals,

(2) Opera-sounding selections, (3) Classical violin music, (4) Other controversial classical selections, (5) Recent hit parade selections, (6) Jazz, and (7) Other controversial popular selections.

## Consensus Agreement: Selections the Three Major Types "Liked"

Five of the 60 selections had positive standard scores on all four of the typologies. An additional six selections had positive standard scores on the three major typologies which represent 97% of the Lansing area audience age 12 or over. These 11 selections (all from the realm of popular music) will be discussed in this section.

Selection 52 (Warren Covington conducing the Tommy Dorsey Band on "In the Mood") was strongly liked by Type A (the hit parade typology) and Type C (the semi-classical typology), substantially liked by Type D (the quasi-hit parade typology), and mildly accepted by Type B (the class-ical typology). The selection ranked twelfth among Type A's favorites and seventh among Type C's favorites.

Mantovani's Orchestra playing "If I Loved You" was strongly liked by Type B (the classical typology), Type C (the semi-classical typology), and Type D (the quasi-hit parade typology). The selection ranked fifth among Type B's favorites, fourth among Type C's favorites, and eighth among Type D's favorites. It was only mildly accepted by Type A (the hit parade typology).

The Four Lads singing "No Not Much" was strongly liked by Type A (the hit parade typology) and Type D (the quasi-hit parade typology), substantially liked by Type C (the semi-classical typology), and only mildly accepted by Type B (the classical typology). Among the typological favorites, the selection ranked fifteenth for Type A, fourteenth for Type C, and sixth for Type D.

The showtune sung by Julie Andrews, "I Could Have Danced All Night," was strongly liked by Type C (the semi-classical typology) and ranked third among Type C's list of best liked selections. It was only mildly accepted by the other three types: Type A (the hit parade typology), Type B (the classical typology), and Type D (the quasi-hit parade typology).

Stanley Black's Orchestra playing the Latin-flavored "Granada" was strongly liked by Type C (the semi-classical typology) and ranked fifth among Type C's list of top favorites. The selection was substantially liked by Type A (the hit parade typology) and mildly accepted by Type B (the classical typology). In addition, the selection was very strongly liked by Type D (the quasi-hit parade typology) which ranked the selection second among its best liked selections.

In the case of two selections which had been "paired" as "sweet music" (Guy Lombardo's chorus singing "Wonderful, Wonderful, Copenhagen" and Russ Morgan singing "So Tired")-- Type A (the hit parade typology) substantially liked both,

TABLE 43.--Consensus agreement: selections that all three
of the major typologies (Types A, B, and C) tended to "like"
(all standard scores were positive).

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Warren Covington conducts the "T.D." Band: "In the Mood" (52) | 1.08 | .47 | 1.11 | .60 |
| Mantovani's Orchestra plays "If I Loved You" (56) | .44 | 1.23 | 1.48 | 1.21 |
| The Four Lads sing "No Not Much" (46) | 1.02 | .23 | .75 | 1.28 |
| Julie Andrews sings "I Could Have Danced All Night" (18) | .37 | .49 | 1.72 | .37 |
| Stanley Black's Orchestra plays "Granada" (8) | .93 | .36 | 1.47 | 2.05 |
| Eastman Marching Band: "The Washington Post March" (12) | .98 | .94 | .26 | -.83 |
| Pianist Del Wood plays "Hello My Baby" (60) | 1.05 | .28 | .14 | -1.06 |
| Guy Lombardo's Orchestra plays "...Copenhagen" (4) | .60 | .19 | .14 | -.83 |
| Russ Morgan sings "So Tired" (34) | .65 | .00 | .14 | -.73 |
| Jimmie Durante sings "You Gotta Start Off..." (28) | .92 | .12 | .62 | -.79 |
| Buffalo Bills sing "Happy Days Are Here Again" (42) | .94 | .26 | .02 | -1.01 |

while the classical and semi-classical typologies mildly

accepted both selections. The Buffalo Bills' barbershop

quartet vocal of "Happy Days Are Here Again" brought a

similar reaction from the three major typologies. In con-

trast, Type D (the quasi-hit parade typology) substantially

rejected the two "sweet music" selections and strongly re-

jected the barbershop quartet vocal.

The Eastman Marching Band playing "The Washington Post March" was substantially liked by Type A (the hit parade typology) and Type B (the classical typology), mildly accepted by Type C (the semi-classical typology), and substantially rejected by Type D (the quasi-hit parade typology). Type B ranked the marching band selection twelfth on its list of favorites.

Del Wood's honky-tonk instrumental was strongly liked by Type A (the hit parade typology) which ranked it fourteenth on its list of best liked selections. However, the selection was only mildly accepted by Types B and C (the classical and semi-classical typologies)--and was strongly rejected by Type D (the quasi-hit parade typology).

Jimmy Durante's vocal of "You Gotta Start Off Each Day With a Song" was substantially liked by Types A and C (the hit parade and the semi-classical typologies). It was only mildly accepted by the classical typology (Type B) and was substantially rejected by Type D (the quasi-hit parade typology).

## Classical Selections That Types B and C "Liked"

Type B (representing the preferences of 30% of the Lansing area audience age 12 or over) and Type C (representing the preferences of 19% of that population) both indicated a considerable interest in certain selections of classical music. To assist the music programmer of a classical music station, we will review the classical selections which both

of these typologies "liked." This should assist the class-
ical music programmer in maximizing the audience for his
classical music programming.

TABLE 44.--Classical selections that Types B and C (the
classical and semi-classical typologies) tended to like
(selections for which the standard scores were positive).

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Brahms' "Symphony Number Four in E Minor" (3) | -.54 | .21 | .87 | .77 |
| The Philharmonia Chorus sings a Brahms German Requiem (7) | -.88 | .42 | .38 | -.22 |
| The Minneapolis Symphony plays Strauss' "Don Juan"(11) | -.45 | .53 | .38 | .05 |
| Grieg's "Concerto in A Minor" for piano and orchestra (15) | -.74 | .69 | .87 | -.56 |
| Mozart's "Symphony Number 40 in G Minor" (19) | -.69 | .56 | .38 | -.46 |
| Beethoven's piano sonata "Appassionata" (21) | -.79 | .11 | .38 | .44 |
| Richard Tucker sings Verdi's "La donna è mobile" (25) | -1.52 | .77 | .86 | -1.16 |
| Mendelssohn's "Concerto in E Minor" for violin and orchestra (27) | -.77 | 1.10 | .25 | -.11 |
| Schubert's "Symphony Number Eight in B Minor" (33) | -.55 | 1.29 | .38 | .72 |
| Shostakovich's "Symphony Number Five" (35) | -.55 | 1.10 | .50 | .82 |
| The Berlin Orchestra plays Respighi's "...Pines..."(41) | -.85 | .03 | .13 | -.05 |
| Rachmaninoff's piano "Concerto Number Two in C Minor" (45) | -.85 | 1.27 | 1.96 | 1.22 |
| Mozart's "Eine Kleine Nachtmusik" (49) | -.77 | 1.37 | .02 | .50 |

In examining the 13 selections which received positive standard scores on both Types B and C, it can be noted that 11 of the selections are instrumentals. Seven of these 11 instrumentals are symphonic selections, three are piano selections, and one is a violin concerto. It seems noteworthy that all three of the classical piano selections, used in the study, are among the "classical consensus favorites" of the two typologies.

From the historical viewpoint of music, the more traditional and conventional forms of classical music dominate the "consensus" list. Of the 13 selections, only one (Strauss' "Don Juan") is from the Modern era of classical music. Two selections are from the Neo-Romantic period. Eight are from the Romantic era. Two are from the Classical period. None is from the Pre-classical era.

Seven of the "consensus" selections are among Type B's 15 best liked selections. (Type B is the classical typology which represents the preferences of 30% of the Lansing area population age 12 or over.) Mozart's "Eine Kleine Nacht-musik" ranks first on Type B's list of favorites, the Schubert symphony is third, the Rachmaninoff piano concerto is fourth, the Mendelssohn violin concerto and the Shostakovich symphony are tied for seventh, the Verdi operatic selection is fourteenth, and the Grieg piano concerto is fifteenth.

Four of the "consensus" selections are among Type C's 15 best liked selections. (Type C is the semi-classical typology which represents the preferences of 19% of the

Lansing area population age 12 or over.) Rachmaninoff's piano concerto ranks at the very top of Type C's list of favorites, the Grieg piano concerto is tied for ninth, the Brahms symphony is tenth, and the Verdi operatic selection is twelfth.

The consensus information suggests that three selections, in particular, are especially appealing to both of the typologies. Two of these selections are piano concertos. The Rachmaninoff piano concerto was strongly liked by both typologies--and was ranked first on Type C's list of best liked selections and fourth on Type B's list. The Grieg piano concerto was substantially liked by both typologies-- and was ranked ninth by Type C and fifteenth by Type B. In addition, the Verdi operatic selection sung by Richard Tucker was substantially liked by both typologies--and ranked twelfth by Type C and fourteenth by Type B.

Consensus Agreement: Selections the
Three Major Types "Reject"

Six selections (five classical and one popular) had negative standard scores on all three of the major typologies (representing the preferences of 97% of the Lansing area population age 12 or over). To various degrees, the major types agreed that many of the selections of music used in the study were liked considerably more than these six selections.

The three "opera-sounding" soprano vocals (sung by Elisabeth Schwarzkopf, Donna Praycht, and Bethany Beardslee) have been mentioned before in our discussion of the least

liked selections of the four typologies. All three selec-

tions were among the 15 least liked selections of all four

typologies.

TABLE 45.--Consensus agreement: selections that the three
major types tend to "reject" (have negative standard scores).

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Elisabeth Schwarzkopf sings Wagner's "Lohengrin" (55) | -1.50 | -1.08 | -.85 | -1.22 |
| Donna Praycht sings an Edgar Varese composition (29) | -1.44 | -.75 | -.84 | -.66 |
| Bethany Beardslee sings Schoenberg's "Pierrot Lunaire" (59) | -1.67 | -2.81 | -1.09 | -.16 |
| Dufay's instrumental "Sequence for WhitSunday (43) | -.96 | -.45 | -.71 | -.73 |
| Ann Richards sings "No Moon at All" (10) | -.10 | -3.63 | -.34 | .99 |
| Webern's "Six Pieces for Orchestra" (47) | -1.22 | -1.02 | -.24 | .84 |

Elisabeth Schwarzkopf singing music from Wagner's

"Lohengrin" (a Romantic era opera selection) was strongly

rejected by Types A, B, and D (the hit parade, classical,

and quasi-hit parade typologies). It was substantially

rejected by Type C (the semi-classical typology). It was

One of the five least liked selections of all four typologies.

Bethany Beardslee singing Schoenberg's "Pierrot Lunaire" (a contemporary vocal) was very strongly rejected by Type B (the classical typology). It was strongly rejected by Type A (the hit parade typology) and Type C (the semi-classical typology), while only mildly rejected by Type D (the quasi-hit parade typology). It was the least liked selection in Type A, the second from the bottom in Type B, and the sixth from the bottom of Type C's ranking of the 60 selections.

Donna Praycht's singing of music composed by Varese (a contemporary vocal) was strongly rejected by Type A (and one of the three least liked selections by Type A). It was substantially rejected by Types B, C, and D (and one of the 15 least liked selections of Types B and C).

Dufay's Renaissance era "Sequence for WhitSunday" played by the Brussels Pro Musica Antiqua (a quiet sounding instrumental) was the only other selection that was rejected by all four typologies. However, in contrast to the "opera-sounding" selections, it was one of the 15 least liked selections of only one typology (Type A, the hit parade or anti-classical typology). The standard scores show it was mildly rejected by Type B (the classical typology) and substantially rejected by the other three typologies.

Webern's twentieth century small ensemble composition "Six Pieces for Orchestra (Selection 47) was strongly rejected by Type A (the hit parade typology) and Type B (the classical typology)--and was one of the eight least liked

selections of these two typologies. It was mildly rejected by Type C (the semi-classical typology) and substantially liked by Type D (the quasi-hit parade typology).

Only one popular selection (Ann Richards' jazz scat singing of "No Moon at All") had negative standard scores on all three of the major typologies. Of all the 30 popular selections, used in the study, only the Ann Richards selection had a negative standard score on Type A (the hit parade typology which represented the largest group of potential listeners). For Type B (the classical typology representing the second largest group of potential listeners), the selection was the least liked of all of the 60 selections used in the study. Type C (the semi-classical typology) mildly rejected the selection. Only the small Type D (representing only 3% of the potential audience age 12 and over) reacted quite favorably to it. Type D ranked it as one of their 11 best liked selections.

## Controversial Music:  Religious Vocals and Organ Instrumentals

Religious music was included in both our popular and classical selections. The popular selections contained a Hymn; the classical selections contained two Gregorian chants and two choirs singing "Requiems."

In addition, two selections, used in the study, featured organ instrumentals. One was a classical selection (a Bach organ fugue). The other was a popular selection (Ken Griffin playing "Elmer's Tune").

The organ is, of course, a musical instrument that is commonly used in Church music. And it appears, that though the organ selections used in this study were "secular," a relationship seems to exist (to varying degrees) between the "liking" (positive standard scores) of the organ selections and the liking of the vocal selections with religious themes. Similarly, a relationship appears to exist between the "rejection" (negative standard scores) of the organ selections and the rejection of the vocal selections with religious themes.

TABLE 46.--Religious vocals and organ instrumentals.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Tennessee Ernie Ford sings "The Old Rugged Cross" (50) | 1.16 | 1.23 | -1.20 | -1.05 |
| Organist, Ken Griffin plays "Elmer's Tune" (32) | 1.15 | .49 | -.11 | -2.39 |
| Organist, E. Power Biggs plays a Bach fugue (9) | -.75 | .50 | -.11 | -1.00 |
| A Gregorian chant sung by a French choir of Monks (1) | -.36 | -.91 | -.84 | 1.06 |
| A Palestrina motet sung by a Cathedral Choir (31) | -.36 | 1.32 | -.84 | 1.11 |
| The Philharmonia Chorus sings a Brahms German requiem (7) | -.88 | .42 | .38 | -.22 |
| A Vienna chorus sings a Verdi Requiem (37) | -1.27 | .25 | -1.08 | -.27 |

Type A (the hit parade typology) ranks the two popular selections in this category (the Hymn and the organ

instrumental) high on its list of favorites. These two
popular selections rank seventh and eighth, respectively,
just below six recent hit parade selections. As with all
of the other classical selections, Type A tends to reject
(have negative standard scores for) the other five class-
ical selections in this category (the Bach organ fugue and
the four religious choral selections).

For Type B (the classical typology), six of the seven
selections in this category have positive standard scores.
In fact, the Hymn ranks fifth among Type B's best liked
selections. One enigma in Type B's rankings: while one
Gregorian chant (Selection 31) is ranked second from the
top and is strongly liked by Type B, the other Gregorian
chant (Selection One) is ranked tenth from the bottom and
is substantially rejected by Type B. (Apparently, the very
different reactions of Type B to these two seemingly similar
selections is the result of the "ordering" of the selections.)

In contrast, Type C (the semi-classical typology) has
negative standard scores for six of the seven selections in
the category. The Hymn is one of Type C's five least liked
selections. Both of the organ selections are mildly rejected.
Both of the Gregorian chants are substantially rejected and
among Type C's 10 least liked selections. The Verdi Requiem
is strongly rejected and is eighth from the bottom of Type
C's least liked selections. Only the German Requiem by
Brahms received a positive standard score.

Type D (the quasi-hit parade typology) has negative standard scores for five of the seven selections in the category "religious vocals and organ instrumentals." Of all the 60 selections used in the study, the popular organ piece is Type D's least liked selection and the classical organ piece is one of the 10 least liked selections. The Hymn is eighth from the bottom of Type D's least liked selections. The two Requiems are mildly rejected. But, surprisingly, the two Gregorian chants are both strongly liked--and are among Type D's 10 best liked selections.

## Opera-Sounding Selections

In our earlier discussion of the selections which all four typologies tended to like least, three "opera-sounding" soprano vocals were mentioned as having negative standard scores on all four types. These three selections were: Elisabeth Schwarzkopf singing music from Wagner's Romantic era opera "Lohengrin," Donna Praycht singing a contemporary vocal by Varese, and Bethany Beardslee singing a contemporary vocal from Schoenberg's "Pierrot Lunaire."

The rejection of these three selections by the four types should not be construed by the reader as a "complete" rejection of "opera-sounding" music. One other "opera vocal" was used in the study: Richard Tucker singing "La donna è mobile" from Verdi's "Rigoletto" (Selection 25). The Richard Tucker vocal was more "conventional-sounding" than the other three selections. Further, it received considerable

approval from Type B (the classical typology) and Type C (the semi-classical typology)--the two types with the greatest interest in classical music.

The Richard Tucker selection was substantially liked by Types B and C. The standard score was .77 on the classical typology and .86 on the semi-classical typology. In fact, the selection was among the 12 best liked selections of Type C and among the 14 best liked selections of Type B.

On the other hand, there is no doubt that Type A (the hit parade and anti-classical typology) does tend to reject "opera vocals." Type A's four least liked selections were the four "opera-sounding" vocals we have just discussed. The Richard Tucker selection ranked second from the bottom of Type A's least liked selections with a standard score of -1.52.

## Classical Violin Music

Three classical selections, used in the study, prominently featured the violin. Two of these selections (one composed by Beethoven and the other by Tchaikovsky) generated substantially different reactions from Types B and C (the two largest typologies with an interest in classical music). One of the selections (composed by Mendelssohn) was "liked" by both Types B and C.

Type B (the classical typology) liked all three "violin" selections. The Mendelssohn and Tchaikovsky selections are among Type B's 10 best liked pieces of music.

TABLE 47.--Classical violin music.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Mendelssohn's "Concerto in E Minor" for violin and orchestra (27) | -.77 | 1.10 | .25 | -.11 |
| Beethoven's "String Quartet in E Minor" (51) | -1.30 | .32 | -.83 | -1.00 |
| Tchaikovsky's "Violin Concerto in D Major" (57) | -1.17 | .89 | -.84 | -1.00 |

In contrast, Type C (the semi-classical typology) substantially rejects the Beethoven and Tchaikovsky selections, and both of these pieces of music are among Type C's 15 least liked selections.

Type A (the anti-classical typology) particularly rejects this kind of classical music. Type A ranks the Beethoven and Tchaikovsky selections among its 10 least liked pieces of music. Similarly, Type D (the quasi-hit parade typology) also tends to reject this particular kind of classical music with the same two selections being among its 11 least liked selections.

## Classical Music: Six Other Controversial Selections

Of course, classical music (of any kind) is a very controversial form of music. The largest typology (Type A), representing 48% of the potential Lansing area audience age 12 or over, prefers any of the popular selections to any of

the classical selections used in the study. On the other
hand, numerous classical selections are among the best liked
pieces of music of the other three types.

But within the 30 classical selections, used in the
study, there are six other selections (aside from those we
have discussed) that generated quite different reactions
from the two largest typologies with an interest in classical
music (Types B and C).

TABLE 48.--Classical music: six other controversal selections.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| The Philadelphia Orchestra plays Debussy's "La Mer"(23) | -1.23 | -.64 | 1.35 | .28 |
| The Philadelphia Orchestra plays Debussy's "...Faun" (53) | -1.16 | -.58 | .99 | - .12 |
| The Columbia Symphony plays Stravinsky's "The Rite..." (5) | - .75 | -.66 | .87 | .77 |
| Webern's "Six Pieces for Orchestra" (17) | -1.22 | -1.89 | .01 | .33 |
| The Pro Musica (madrigal vocal) sings "...Month of May" (13) | - .70 | .42 | -1.56 | -1.16 |
| The Philharmonia Orchestra plays a Bach orchestral suite (39) | -1.15 | .82 | - .59 | .55 |

Four of the six selections are from the Twentieth Cen-
tury era of classical music. These four selections include
two composed by Debussy, one by Stravinsky, and one by Webern.

The two older selections were a Baroque era work composed by Bach and a Renaissance era madrigal composed by Byrd.

The "pair" of selections written by Debussy (representing Impressionistic Orchestra music) was strongly liked by Type C (the semi-classical typology), while being substantially rejected by Type B (the classical typology) which preferred the more "traditional" kinds of classical music. Both of the Debussy compositions ("La Mer" and "Afternoon of a Faun") were among Type C's eight best liked selections. "La Mer" was among Type B's 15 least liked selections.

Stravinsky's contemporary orchestra composition "The Rite of Spring" was one of Type C's nine best liked selections, while being one of Type B's 15 least liked selections.

Webern's contemporary small ensemble composition "Six Pieces for Orchestra" (Selection 17) was strongly rejected by Type B and one of Type B's four least liked selections. This selection was only mildly accepted by Type C (barely receiving a positive standard score). It should be noted that another portion of this same composition was used as Selection 47 in the study. Type B strongly rejected selection 47 and Type C mildly rejected it.

The two "older" classical selections, shown on Table 48, were better liked by Type B. The Bach orchestral suite (representing the Baroque era) was one of the 11 best liked selections by the classical typology, while it was mildly

rejected by the semi-classical typology. Byrd's madrigal "The Merry Month of May" (representing the Renaissance era) was substantially liked by Type B, while strongly rejected by Type C. (It was fourth from the bottom of Type C's least liked selections.)

## Recent Hit Parade Selections

All eight recent hit parade selections, used in the study, were "controversial." The five vocals and three instrumentals aroused differing reactions from the typologies.

All eight selections were "liked" by Type A (the hit parade typology)--with seven of the recent hit parade selections ranking among Type A's 15 best liked pieces of music. (Only the jazz instrumental by Dave Brubeck ranked under the top 15 on Type A's list of favorites.) The youngest and smallest of the typologies, Type D (the quasi-hit parade typology) "liked" seven of the eight selections--ranking four of them among its 12 best liked pieces of music.

In contrast, all eight recent hit parade selections were "rejected," to some extent, by Type B and/or Type C (the two "older" major typologies). Type B "rejected" four of the eight selections--and ranked three among its 10 least liked pieces of music. Type C "rejected" six of the eight selections--and ranked four among its nine least liked pieces of music. Neither Type B, nor Type C ranked any of the eight recent hit parade selections among their 15 best liked pieces of music.

TABLE 49.--Recent hit parade selections.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Freddie Cannon sings "Palisades Park" (24) | 1.33 | -2.33 | -2.90 | 1.28 |
| Johnny Horton sings "North to Alaska" (20) | 1.46 | - .17 | -2.42 | .99 |
| The Lettermen sing "When I Fall in Love" (16) | 1.30 | .16 | -1.31 | 1.18 |
| The Kingston Trio sings "Tom Dooley" (54) | 1.39 | .00 | - .95 | .72 |
| Walter Brennan recites "Old Rivers" (58) | 1.08 | .14 | - .22 | .00 |
| The Harmonicats play "Cherry Pink and Apple Blossom White" (14) | 1.32 | .19 | - .59 | -.57 |
| Pianist,Bent Fabric plays "Alley Cat" (2) | 1.36 | - .99 | .62 | .44 |
| Dave Brubeck's Quartet plays "Take Five" (40) | .88 | - .91 | .49 | 2.54 |

The most controversial selection of music in the study (in the sense that it evoked strong pro and con reaction from the major typologies) was Freddie Cannon's vocal "Palisades Park" (the only "raucous" rock-and-roll selection used in the study). The Freddie Cannon vocal was strongly liked by Types A and D (the two "youngest" typologies, representing the preferences of 51% of the Lansing area population age 12 and over). In fact, it was one of the five best liked selections of these two "young" typologies. In contrast, this "raucous" rock-and-roll selection was very strongly rejected by the two "older" typologies (Types

B and C, representing 49% of the Lansing area population age 12 and over). For Type C (the semi-classical typology), it was the least liked of all the 60 selections. For Type B (the classical typology), it was one of the three least liked selections.

Aside from the Freddie Cannon selection (which was very strongly rejected by Types B and C) and the Ann Richards jazz scat singing selection (which was rejected by all three of the major typologies), only one other popular selection was rejected by more than one of the three major typologies. This was the selection that represented country-and-western music: Johnny Horton singing "North to Alaska." The Johnny Horton selection was strongly liked by Type A (the hit parade typology)--and was at the top of Type A's list of favorites. In addition, it was substantially liked by Type D (the quasi-hit parade typology) which ranked it among its 12 best liked selections. On the other hand, the country-and-western selection was very strongly rejected by Type C (the semi-classical typology, representing 19% of the Lansing area population age 12 and over) and it was ranked as one of Type C's two least liked selections. Type B (the classical typology) mildly rejected the country-and-western selection.

The vocal ballad by The Lettermen (which might have been categorized as a non-raucous hit in the KING study, had it been used in that study) was strongly rejected by Type C (the semi-classical typology). It was one of the

five least liked selections of Type C; but again, it was only mildly rejected by Type B (the classical typology).

The folk song by the Kingston Trio was substantially rejected by Type C and one of Type C's nine least liked selections. This folk song received a neutral reaction from Type B. The instrumental by the Harmonicats was substantially rejected by Type C and mildly accepted by Type B. The recitation by Walter Brennan was mildly rejected by Type C and mildly accepted by Type B.

Two of the recent hit parade _instrumental_ selections were liked by Type C, while being substantially rejected by Type B. These two selections were the piano selection by Bent Fabric and the jazz selection by Dave Brubeck. Both selections were among Type B's 10 least liked pieces of music. Type B's rejection of Dave Brubeck's "Take Five" seems to fit a pattern of rejecting various kinds of jazz. However, Type B's rejection of the rather innocuous piano selection "Alley Cat" by Bent Fabric does not seem to follow a pattern of rejecting piano selections. In fact, all three classical piano selections, as well as the honky-tonk piano piece by Del Wood, were to various degrees, "liked." The rejection of "Alley Cat" by Type B (the oldest of the four typologies) _may_ have been more of a reaction toward the "label" (the name of the selection and/or artist) rather than toward the music.

<u>Jazz</u>

Five selections, used in the study, might be described as belonging to that family of music known as jazz. One selection was a vocal (featuring Ann Richards). Two selections had a "Dixieland sound" (one featured The Dukes of Dixieland and the other Paul Whiteman's Orchestra). One selection was a drum solo (featuring Saul Goodman). One recent hit parade selection (featuring Dave Brubeck) was also included.

TABLE 50.--Jazz selections.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Ann Richards sings "No Moon at All" (10) | -.10 | -3.63 | -.34 | .99 |
| Dukes of Dixieland play "Runnin' Wild" (30) | .68 | -1.24 | .38 | -.56 |
| Paul Whiteman's Orchestra plays "The Wang, Wang, Blues" (6) | .76 | - .98 | .74 | -.61 |
| Dave Brubeck's Quartet plays "Take Five" (40) | .88 | - .91 | .49 | 2.54 |
| Drummer, Saul Goodman plays "Tympania" (36) | .47 | - .57 | .38 | 1.82 |

Of all the 30 <u>popular</u> selections used in the study, <u>only one</u> selection (the jazz scat singing of Ann Richards, backed by the Stan Kenton Band) was rejected by all three of the major typologies. The Ann Richards selection was the <u>only popular selection</u> to be rejected by Type A (the

hit parade typology). It was the least liked of all 60 selections by Type B (the classical typology). And it was mildly rejected by Type C (the semi-classical typology).

Of the three major typologies (Types A, B, and C), only Type B (the classical typology) rejected all four of the other jazz selections used in the study. The Dukes of Dixieland selection was one of Type B's five least liked pieces of music. The Paul Whiteman selection (which had a "Dixieland sound") and the Dave Brubeck selection were among Type B's 10 least liked selections.

In general, the jazz selections did not get strong support as favorites from any of the three major typologies. None of the selections appeared in Type A's list of 15 best liked pieces of music. For Type C (the semi-classical typology), only one jazz selection (featuring Paul Whiteman) ranked among its 15 best liked pieces of music.

The smallest of the typologies (Type D, the quasi-hit parade typology) ranked three jazz selections among its list of 11 best liked pieces of music. Type D substantially rejected the two Dixieland selections.

## Popular Music: Five Other Controversial Selections

Aside from those popular selections we have discussed (the recent hit parade selections, the jazz selections, the Hymn, and the organ instrumental), five other pieces of music were "controversial"--had negative standard scores on one of the three major typologies.

TABLE 51.--Popular music:  five other "controversial"
selections.

| Description and Selection Number | Standard Scores for the Types | | | |
|---|---|---|---|---|
| | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| Frankie Yankovic's Chorus sings "Pennsylvania Polka" (44) | .79 | .29 | -2.18 | - .57 |
| Hawaiian Islanders' play "Song of the Islands" (38) | 1.12 | .78 | - .72 | -1.67 |
| Mitch Miller's Chorus sings "...Four Leaf Clover" (48) | 1.08 | .79 | - .34 | -2.00 |
| Frank Sinatra sings "Five Minutes More" (22) | 1.07 | -.84 | .86 | - .59 |
| Jackie Gleason's Orchestra plays "But Not For Me" (28) | .82 | -.11 | 1.84 | .71 |

One of these five selections (the polka by Frankie
Yankovic) was very strongly rejected by Type C (the semi-
classical typology).  The polka was one of Type C's three
least liked selections.  In contrast, it was substantially
liked by Type A (the hit parade typology) and mildly accepted
by Type B (the classical typology).

The Hawaiian steel guitar instrumental was substan-
tially rejected by Type C.  However, it was well liked by
the two largest typologies.  The Hawaiian number was one
of the nine best liked selections of Type A (representing
48% of the Lansing area population age 12 and over)--and was
one of the 13 best liked selections of Type B (representing
30% of that population).

The Mitch Miller sing-a-long selection was mildly rejected by Type C, but one of the 12 best liked selections of both Types A and B.

On the other hand, both Type C and A ranked the Frank Sinatra vocal among their 13 best liked selections. Type B substantially rejected it--ranking the selection among its 11 least liked selections.

The instrumental featuring Jackie Gleason's Orchestra was strongly liked by Type C and ranked second among Type C's list of favorites. Type A substantially liked the selection. The selection was only mildly controversial-- with Type B mildly rejecting it.

CHAPTER V

SUMMARY AND CONCLUSIONS

## A Summary of the Findings

In this section, the findings of this research project (the preliminary and the final study) are summarized.

1. The preliminary study verified the hypothesis that greater accuracy is achieved in a music preference study when the subjects are given the opportunity to actually hear specific selections of music, rather than just read about the specific selections.

Since the amount of time that a subject can reasonably be expected to submit to a research project is necessarily limited, and at the same time the researcher wishes to obtain as much accurate information as he can within that time, we also tested to see whether or not greater accuracy was achieved through the use of 10-second, 30-second, or 60-second selections. The preliminary study indicated that a music study which employs written information about specific selections is a "fairly reliable" method of collecting data. However, it also suggested that greater accuracy is achieved through the use of 10-second selections. Even greater accuracy is achieved through the use of 30-second selections. And still greater accuracy is achieved by the use of 60-second selections.

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Based on the correlation data, we considered it advisable to utilize 30-second selections in our final study. This was because: (1) the use of actual 30-second selections was a substantial improvement over the method which used written selections, and (2) the use of 30-second selections, rather than 60-second selections, allowed us to present twice as many selections of music to the subjects in the final study, in about the same amount of time as it would have taken to present the 60-second selections.

2. The typological data in the final study suggested that music preferences are related to the variables of age, formal education, and music background. In general, subjects who were younger, had less formal education, and less previous music experience as a music student or performer--were in Type A (the hit parade and anti-classical typology) or in Type D (the quasi-hit parade typology). There was no such strong indication, based on the typological data, that the variable of "sex" was related to music preferences.

3. A preference for classical music appears to be related to a knowledge of formal music terminology. The average scores of the persons in the four typologies on the "music notation test" indicated that the typologies which had a greater liking for classical music scored higher on the test than the other typologists. This suggests, to the writer, that efforts designed to elevate musical taste toward classical music should include stronger emphasis on

the study of "serious music" in the schools--as well as in private music lessons.

4. The product moment correlation data suggests that, in general, there was much more similarity in a subject's reactions toward the classical "pairs," used in the study, than in the popular "pairs." Generally, subjects who tended to like or dislike one classical selection in a pair, tended to react similarly to the other classical selection in that pair. This was much less true of the subjects' reactions toward the popular pairs. Sometimes, there was practically no relationship between the reaction toward one popular selection in a pair and the reaction toward the other selection in the pair. This suggests that the music programmer may predict with greater accuracy an "average" subject's reaction to a particular piece of classical music, when he knows the subject's reaction to a somewhat similar classical selection, than he can predict the "average" subject's reaction toward a particular popular selection when he knows the subject's reaction to a somewhat similar popular selection.

It appears that the major reason for this is because for <u>many</u> subjects "classical music" was, for the most part, a "big blob" of music (an indistinguishable mass of music) which they very much disliked. On the other hand, for "popular music," most all of the subjects tended to be more "discriminating." They expressed a variety of reactions toward the popular selections, ranging from "terrible" to

"terrific." The product moment correlation data for the
four typologies, the factor analysis of the 60 selections
data, and the factor analysis of persons data--all support
this view.

5.  While the product moment correlation analysis
compared the consistency of responses toward pre-determined
categories ("pairs" of music used in the study), the factor
analysis of the 60 pieces of music indicated how the sub-
jects in the study tended to "categorize" the selections--
in terms of the similarity of appeal of the various selec-
tions.  This analysis again indicated that while the
classical selections tended to be viewed as a distinctive
and related category of music, more "discrimination" was
exercised by the subjects in the study in their reactions
toward the popular selections used in the study.

All five of the recent hit parade "vocals," used in
the study, tended to be viewed as a unique and related
category in terms of "appeal."  In addition, three other
categories emerged involving the popular selections.  Eleven
selections in one of the categories might be described as
"old" popular music.  Eleven selections in another category
might be described as "modern, sophisticated" popular music.
A small, three selection category might be described as
"dixieland" or "old, lively, novelties."

6.  The "ordering" of the first selection in the study
apparently had an effect on the reactions of some of the
subjects toward that selection.  This is indicated by the

moderately low product moment correlation of Selections One
and 31 (both seemingly quite similar Gregorian chants). This
was also indicated by Type B's reaction to this same "pair"
of selections. (As noted previously in our discussion of
Type B, the first selections used in the study was among
Type B's 11 least liked selections; while its "pair" (Selec-
tion 31) was ranked as Type B's second best liked selection).

Apparently, the "ordering" problem affected only the
very first selection used in the study--to any appreciable
extent.

7. The "labeling" of the selections (giving the name
of the artist and the selection before it was played for the
subjects) probably had an impact on the ratings given, by
some subjects, to two of the selections used in the study.

One of the selections was Selection Two (Bent Fabric
plays "Alley Cat"). This rather innocuous piano selection
(with an "informal" title and played by a pianist with an
unusual name) was ranked as one of the eight least liked
selections by Type B (the oldest of the typologies). Since
Type B indicated favorable reactions toward four other piano
selections used in the study (one honky-tonk piano selec-
tion and three classical piano selections), it would seem
that the rejection of "Alley Cat" by Type B may have been
more of a reaction toward the "label," than toward the music
itself.

The other piece of music used in the study which
probably had its ratings affected by "labeling" was Selection

45. It was described to the subjects in the following manner: "Fritz Reiner conducts the Chicago Symphony Orchestra on Rachmaninoff's 'Concerto Number Two in C Minor, Opus Number One'--Artur Rubinstein, pianist." Though described to the subjects as a classical selection, Selection 45 was actually both a "classical" and a "popular" piece of music. In 1946, the melody had been introduced into the field of popular music under the title "Full Moon and Empty Arms." It is a safe assumption that had the selection been described to the subjects by its popular title, rather than its classical title, the ratings given by many of the subjects to Selection 45 would have been quite different. As it turned out in our study, Selection 45 was among the seven best liked selections of Types B, C, and D. It was rejected only by Type A (the anti-classical typology) which had placed both of the popular piano selections, used in the study, among its 14 best liked selections.

It should be noted, however, that whatever "labeling" biases may have been created in our study through the use of "introductions" to the selections, are the very same kinds of biases which are created by radio stations that commonly give the listener the name of the artist and selection which is to be played (or which has been played).

8. An analysis of the "mean ratings," given to the selections used in the study, indicates that "generally" most of the subjects "liked" the selections used in the study-- most persons rated most of the 60 selections on the "plus"

side of the 21 point rating scale.  Of the 49 persons who were asked to participate in the study, only eight subjects had a "negative" mean rating for the 60 selections.

By typologies: only four selections had negative means from Type B (the classical typology), eight selections had negative means from Type C (the semi-classical typology), and three selections had negative means  from Type D (the quasi-hit parade typology).  Only Type A (the hit parade typology) had negative means for a large number of selections (29 classical selections and one popular selection).

9.  The adjective check-list was utilized to attempt to find out "why" certain selections were liked or dis-liked.  Analysis of the check-list suggests that "familiarity" was a very important characteristic, within the music, which made a particular selection especially "appealing."  Also, the frequent use of the word "rhythmic" (an aspect of "tempo") was particularly significant to many subjects in describing their best liked selections.

The adjective "familiar" was used in a majority of cases to describe the 10 best liked selections of the three major typologies (Types A, B, and C).

Type D used no adjective (in a majority of cases) to describe its 10 best liked selections.  Nonetheless, Type D most frequently described its 10 best liked selections as "familiar" and "rhythmic."  In a majority of cases, the two largest typologies (Type A and B) also used the adjective

"rhythmic" to describe its 10 best liked selections.  In
a majority of cases, Type B also used the adjectives
"majestic," "serious," and "relaxing" to describe its 10
best liked selections.

Only one of the typologies (Type A--the anti-classical
typology) used any adjective (in a majority of cases) to
describe its 10 least liked selections.  This was the adjec-
tive "tiring."

10.  The factor analysis of persons typologies indicate
that:  (a) a large segment of the audience very much dislikes
virtually any kind of classical music, (b) a large segment
of the audience indicates that they like "certain" classical
music selections, (c) in particular, "opera-sounding" soprano
solos have very little audience appeal for any of the typo-
logies, and (d) that segment of the audience which displays
a greater interest in classical music (Types B and C) also
tends to exhibit a greater interest in instrumental selec-
tions, rather than vocals.

Four typologies emerged from our factor analysis of
persons.  Those typologies are briefly summarized, as follows,
in terms of:  (1) the kinds of persons who held membership
in each typology, and (2) the musical preferences of each
typology.

Type A (The Hit-Parade or Anti-Classical Typology)
represents the preferences of 48% of the Lansing area popu-
lation age 12 or over.  Except for Type D (quasi-hit
parade typology), Type A is the youngest of the

four typologies with a mean average age of 31.3 years. It
ranks lowest in the amount of formal education completed
(9.8 years), primarily because it contains a large percen-
tage of elementary and secondary students. A majority of
the persons in Type A have "low" music backgrounds. Type
A had the lowest average score on the "music notation test"
of formal music terminology.

Type A preferred any of the popular selections to
any of the classical selections. It particularly liked
recent hit parade music and most disliked opera music. Its
best liked selections were frequently described as: familiar,
rhythmic, singable, danceable, and relaxing. Its least liked
selections were frequently characterized as: tiring, weird,
noisy, shrill, and complicated.

Type B (the Classical Typology) represents the prefer-
ences of 30% of the Lansing area population age 12 or over.
It is the oldest of the four typologies with a mean average
age of 45.1 years. It is second only to Type D (the semi-
classical typology) in the amount of formal education com-
pleted (13.3 years) and in the amount of previous musical
experience possessed by its membership. Of all the typologies
Type B had the highest average score on the "music notation
test" of formal music terminology.

More than any of the other typologies, Type B enjoyed
classical music--especially the quieter, more traditional,
instrumentals. Among its favorites were piano concertos,
violin concertos, and traditional symphonic music. Its

best liked selections were described as: familiar, majestic, serious, relaxing, and rhythmic. Type B's least liked selections included: jazz, rock-and-roll, "opera-sounding" soprano vocals, and "modern" classical music. Its least liked selections were frequently described as: noisy, weird, rhythmic, danceable, and tiring.

Type C (the Semi-Classical Typology) represents the preferences of 19% of the Lansing area population age 12 and over. It is the next to the oldest typology with a mean average age of 38.3 years. (Only Type B--the classical typology--is older.) It ranks highest in the amount of formal education completed (14.9 years). A majority of the persons in Type C had "high" music backgrounds. Type C's average score on the "music notation test" was second to, and only slightly lower than, the average score of Type B (the classical typology).

Type C enjoyed both "sophisticated" popular music and the less conventional classical orchestral selections-- particularly instrumentals. Its popular favorites included selections by Julie Andrews, Mantovani's Orchestra, and Warren Covington's Band. Its classical favorites included two Impressionistic orchestral selections by Debussy and two piano concertos. The best liked selections were frequently described as: familiar, graceful, relaxing, smooth, and stimulating. Type C's 15 least liked selections were all vocals (except for two classical violin solo selections). Its least liked selections included: rock-and-roll, recent

hit parade vocals, a polka, "opera-sounding" soprano vocals, and vocals with a religious theme. Frequently, its least liked selections were characterized as: familiar, tiring, singable, monotonous, and noisy.

Type D (the Quasi-Hit Parade Typology) represents the preferences of 3% of the Lansing area population age 12 or over. By far, it is the youngest of the four typologies with a mean average age of 18.7 years. All of the members of this typology are students with an average of 12.3 years of schooling completed. A majority of the persons in Type D have "low" music backgrounds. Type D's score on the "music notation test" was higher than only Type A (the anti-classical and hit parade typology).

Type D's best liked selections covered a wide range of music. It included recent hit parade music (including rock-and-roll), jazz, and "sophisticated" popular music. Its classical favorites ranged in chronology from a Gregorian chant to an extremely modern work by Webern. The best liked selections were often described as: familiar, rhythmic, graceful, rich, and smooth. Type D's least liked pieces of music were "old" popular selections and some of the more "traditional" classical selections. The least liked selections were frequently referred to as: gay, rhythmic, graceful, monotonous, old, serious, and smooth.

11. A comparison was made of the reactions of the three major typologies (Types A, B, and C--representing the preferences of 97% of the Lansing area population age 12 and

over) to each of the 60 selections of music used in the study. These comparisons (based on standard scores and the rankings of the 60 selections by the typologies) produced some additional information which gives valuable programming guidelines to popular and/or classical music stations.

It was found that 11 of the 60 selections were likely to please (to a certain extent) all three of the major typologies. Further, 13 of the classical selections were likely to please (to a certain extent) the two major typologies which had the greatest interest in classical music programming (Types B and C). In addition, six selections were found to have little appeal to any of the major typologies. The remaining 30 selections, used in the study, were found to be "controversial" (to various degrees)--with at least one major typology "liking" them and at least one major typology "rejecting" them.

The 11 selections which pleased the three major typologies were all from the realm of popular music. Since these 11 selections had positive standard scores on the three major types, these selections were among the better liked selections of the three major types. In particular three of these selections were well liked. These three selections were among the 15 best liked selections of _two_ of the three major typologies. "In the Mood" played by the Tommy Dorsey Band was ranked 12th by Type A (the hit parade typology) and seventh by Type C (the semi-classical typology).

The Four Lads singing "No Not Much" was ranked fourteenth by Type A and fifteenth by Type C. Mantovani's Orchestra playing "If I Loved You" was ranked fourth by Type B (the classical typology) and fifth by Type C (the semi-classical typology).

Thirteen of the 30 classical selections, used in the study, had positive standard scores on both Types B and C-- the two major typologies with the greatest interest in classical music programming. Seven of these 13 selections were among Type B's 15 best liked selections. Four of the 13 selections were among Type C's 15 best liked selections. In particular, three of the 13 selections were well liked by Types B and C. These three selections were among the 15 best liked selections of both typologies: (a) a Rachmaninoff piano concerto was ranked at the top of Type C's list of favorites and fourth on Type B's list, (b) a Grieg piano concerto was ranked ninth by Type B and fifteenth by Type C, and (c) a Verdi operatic selection by Richard Tucker was ranked twelfth by Type C and fourteenth by Type B.

Six selections (five classical and one popular) had negative standard scores on all three of the major typologies and hence had little "appeal." In particular, all three of the "opera-sounding" soprano vocals, used in the study, were strongly rejected. All three "opera-sounding" soprano selections were among the 15 least liked selections of all three of the major typologies. The only popular selection to have negative standard scores on all three of

the major typologies was the jazz scat singing of Ann Richards. This jazz selection was ranked as the very least liked selection of Type B (the classical typology).

Among the "controversial" categories of music were five religious vocals and two organ instrumentals (five classical and two popular selections). Type A (the hit parade and anti-classical typology) liked the two popular selections which fit into this category and ranked those two popular selections among its eight best liked pieces of music. However, as with all the other classical selections used in the study, Type A had negative standard scores for the five classical selections which fit into this category. Type B (the classical typology) had positive standard scores for six of the seven selections in the category of religious vocals and organ instrumentals. In fact, Type B ranked two of the selections among its five best liked pieces of music. In contrast, Type C (the semi-classical typology) had negative standard scores for six of the seven selections in the category--with four of the selections ranking among Type C's 10 least liked pieces of music.

Another controversial category of music involved "opera-sounding" selections. All three of the major typologies had ranked the three "opera-sounding" soprano vocals among their 15 least liked selections of music. However, Type B (the classical typology) and Type C (the semi-classical

typology) ranked the Verdi operatic vocal by Richard Tucker among their 14 best liked selections of music.

A third controversial category of music, of particular interest to classical music stations, was the category involving classical selections which prominently featured a violin solo. Three such selections were used in the study. Only one of these selections (a Mendelssohn violin concerto) had a positive standard score on <u>both</u> Types B and C (the two typologies with the greatest interest in classical music). The other two selections, in this category, also had positive standard scores on Type B (the classical typology)--<u>but</u> negative standard scores on Type C (the semi-classical typology). While two of the three "violin solo" selections were among the 10 best liked selections of Type B; two of the three selections were among the 15 least liked selections of Type C.

Six "other" classical selections, used in the study, aroused "controversy" between Types B and C (the two major types with the greatest interest in classical music). Four of these six selections were from the Twentieth Century era of classical music. These four twentieth century selections were "liked" by Type C (the semi-classical typology), but were "rejected" by Type B (the classical typology). Three of these four twentieth century selections were among Type C's nine best liked selections of music, while two of these selections were among Type B's 15 least liked selections. In contrast, the two remaining "older" selections, in this

"miscellaneous" six selection classical category, were both "liked" by Type B (the classical typology), but were "rejected" by Type C (the semi-classical typology).

Among the popular selections used in the study, the eight "recent hit parade selections" formed a controversial category of music. Five of the selections were vocals, while three were instrumentals. Type A (the hit parade typology) "liked" all eight selections--and ranked seven of the eight selections among its 15 best liked pieces of music. Type D (the quasi-hit parade typology) "liked" seven of the eight selections--and ranked four of the selections among its 12 best liked pieces of music. In contrast, Type C (the semi-classical typology) "rejected" six of the eight recent hit parade selections--and ranked four of the selections among its nine least liked pieces of music. Type B (the classical typology) "rejected" four of the eight selections--and three selections were among Type B's 10 least liked pieces of music.

Two "recent hit parade" selections (one by Freddie Cannon and one by Johnny Horton) were the most controversial popular selections used in the study. Both of these selections had negative standard scores on two of the three major typologies. (The only other popular selection to be "rejected" by at least two of the three major types was the jazz scat singing of Ann Richards--which was rejected by all three major typologies.) The most controversial selection in the study (in the sense that it evoked very strong reactions in

favor of it and very strong reactions against it) was Selec-
tion 24: Freddie Cannon singing "Palisades Park"--the only
"raucous" rock-and-roll selection used in the study. The
Freddie Cannon selection was one of the five best liked
selections of the two "youngest" typologies (Types A and D--
the hit parade and quasi-hit parade typologies--representing
51% of the Lansing area population). This same selection
was one of the three least liked selections of the two
"oldest" typologies (Types B and C--the classical and semi-
classical typologies--representing 49% of that population).
The only other popular selection to be rejected by at least
two of the three major typologies (aside from the Freddie
Cannon and Ann Richards selections) was the country-and-
western vocal "North to Alaska" by Johnny Horton. The
Johnny Horton selection was one of the five best liked selec-
tions of Types A and D, one of the two least liked selections
of Type C (the semi-classical typology), and was mildly re-
jected by Type B (the classical typology--and the oldest of
the four typologies).

Another "controversial" category of popular music in-
volved the five "jazz" selections used in the study. One
of the jazz selections (the jazz scat singing of Ann Richards)
was the only popular selection to have a negative standard
score on all three of the major typologies. Of the remaining
four jazz selections in the category, Type A (the hit parade
typology) and Type C (the semi-classical typology) "liked"
all four. However, Type A ranked none of the jazz selections

among its 15 best liked pieces of music--and Type C ranked only one jazz selection among its 15 best liked pieces of music. In contrast, Type B (the classical typology) "rejected" all five of the jazz selections--and four of the five jazz selections were ranked among Type B's 10 least liked selections of music.

The last "controversial" category was a miscellaneous popular music category which contained five selections. (In our factor analysis of the 60 pieces of music, three of these selections had been categorized as "sophisticated" and two as "old".) All five selections had positive standard scores on Type A (the hit parade typology)--and three of the five were among Type A's 13 best liked pieces of music. Type C (the semi-classical typology) liked both of the "sophisticated" selections (with both selections ranking in Type C's 13 best liked selections), while Type B (the classical typology) rejected both "sophisticated" selections (with one of them being one of Type B's 11 least liked selections). On the other hand, Type B liked all three of the "old" selections (with two selections ranking in Type B's 13 best liked selections), while Type C rejected all three "old" selections (including the polka vocal which was one of Type C's three least liked selections).

### The Value and Importance of the Final Study

This research project makes a significant contribution to music preference research because of: (1) the wide range

of music that was used--both popular and classical; (2) the method of collecting the data which employed actual selections of music; and (3) the method of analyzing the data--in particular, typological analysis, based on a factor analysis of persons.

## Wide Range of Music

None of the other studies provided the participants with as broad a list of music, ranging from popular to classical. The Whan and Thompson studies considered only 14 categories of music. The KING study considered only five categories of music.

Our final study provides information about various kinds of popular music that were not even utilized in the other studies. At the same time, through the use of the 30 classical selections, it gives the radio programmer a much better idea of audience reactions to different kinds of classical music.

## Collection of the Data: Actual Selections of Music

A major objective of this research project was to conduct a study which utilized a more accurate method of gauging music preferences.

The results of a study conducted in Denmark (discussed in Chapter I, page 27) suggested that music preference studies which collect reactions toward descriptive categories of music are likely to get inaccurate assessments of their subjects' true preferences.

Then too, descriptive categories of music are ambiguous--and subject to misinterpretation by the participants in a study, as well as by the music programmer. Such studies, also, fail to provide the music programmer with useful guidelines concerning the appeal (or lack of appeal) of the various kinds of music within a particular category.

The results of a preliminary study which we conducted, and which is described in Chapter II, indicated that the subjects in a music preference study could give a more accurate expression of their likes and dislikes when they heard actual selections of music, rather than just reading about specific selections. The preliminary study also found that highly accurate assessments were obtained through the use of 30-second selections of music. Thus, 30-second selections were utilized in our final study.

Since it is true that the subjects in a music preference study can more accurately assess their reactions toward a specific piece of music when they actually hear it (rather than just read about it), then it should also be true that the music programmer can more accurately interpret these reactions if he also hears those selections. Because of this the actual tape, containing the 60 selections of music used in the final study, is considered to be an integral part of the thesis. It is available for the reader of this study to hear--as he attempts to make his own, personal, interpretation of the results of this study.

The Whan and Thompson studies used descriptive categories of music in collecting their data. While the KING study did make use of actual selections of music (approximately 30-seconds in length) in collecting its data, participation in the study was biased (and, therefore, its accuracy was affected) in that the KING study was a mail poll and was openly conducted by a radio station with a particular kind of musical image.

## Analysis of the Data

A major objective of this research project was to analyze the preference data, collected in our study, so that it would provide more useful guidelines to programmers in making music programming decisions.

The KING study (which utilized actual selections of music) analyzed the reactions toward five "pre-determined categories" of music. In our final study, each of the 60 selections of music was, in effect, a "category" by itself. Reactions toward each selection were analyzed.

The Whan, Thompson, and KING studies all analyzed the reactions of "pre-determined categories" of people--based on age, education, etc. In our final study, we also categorized the subjects. However, our categorization was not based on such pre-determined characteristics. Instead, our categorization (accomplished through a factor analysis of persons) was based on how each individual "ranked" the 60 selections of music, in comparison with the other persons in the sample.

The typological data, which emerged from the factor analysis of persons, tells local broadcasters that there are four major patterns of preference among persons age 12 and over in the Lansing area. It tells broadcasters which specific selections of music will please each typology and which selections will alienate them. The data tells about the kinds of people who hold membership in these typologies.

Through the factor analysis of persons, the four basic typologies of persons have said, in effect, that if they were given a choice of listening to music similar to any of the 60 selections of music, used in the study, they would much prefer to hear a particular array of selections and would have less interest in hearing another group of selections. In actual practice, music similar to some of the selections used in the study might not be available, at all times, on the radio. During such times persons with such preferences may either: (1) choose not to listen to the radio, or (2) select a station which has other kinds of programming which they like.

On the basis of the typological information, the radio programmer can determine: (1) whether any significant segment of the audience is not being adequately served by existing radio music programming, and (2) whether that segment of the audience is worth attempting to win (from an advertiser's point of view)--in terms of "quantity" (a significant percentage) or "quality" (age, education, etc.).

For example, the typological data in our final study shows
that certain kinds of classical music are very appealing
to a large segment of the audience (Types B, C, and D repre-
senting 51% of the Lansing area population age 12 or over).
Further, it indicates that this large audience for classical
music is generally an older and better educated group of
people. At the time that our final study was being con-
ducted, no radio station in the Lansing area was playing
classical music on a full-time basis. Thus, the typological
data suggests that, at that time, a significant segment of
the potential radio audience was not being adequately served
by area radio programming.

In terms of winning a new audience or holding the
present audience, the typological data serves as a useful
guideline in radio music programming. It takes some of
the guesswork out of music programming by giving specific
examples of music which will tend to please or alienate
significant segments of the audience.

The results of a preference study, which utilized a
methodology similar to that used in our final study, sug-
gested the usefulness of typological data to the person
who is charged with the responsibility of attempting to
please an audience. It was a "picture" preference study
conducted by Anne Li-Ann Kao at Michigan State University
Kao's picture study sought to find out: what kinds of
audience research results, provided to an editor, can best
enable him to predict the picture values of the audience?

Kao concluded that "Typology of audience members in terms
of their reaction patterns helped editors predict better
than the traditional kind of survey research demographic
information."[1]

While Kao's Study dealt with picture preferences
(and our final study dealt with music preferences), Kao's
study suggests that typological information (which is the
kind of information provided in this thesis) should provide
the music programmer with the kind of information that
should improve his accuracy in selecting music which will
please an audience.

In Kao's study, her subjects were asked to rank 60
pictures in terms of which they liked best and which they
liked least. Twenty-four "editors" were then asked to rank
a similar set of 60 pictures--trying to predict how a par-
ticular subject had ranked a similar set of pictures.

The "editors" were given "various kinds" of informa-
tion about the person whose picture preferences they were
trying to predict. The accuracy of these predictions were
then compared.

When six editors were told simply that the person
was an average adult in Lansing, the correlations between
the editors' ranking of the pictures (his prediction of
how the other person would rank the pictures) and the way

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[1]Anne Li-Ann Kao, "A Study of Types of Magazine Picture
Appeal and Editors' Ability to Predict Readers' Picture-Value
Judgment" (unpublished Master's thesis, Michigan State
University, 1964), p. 134.

the person actually ranked a similar set of 60 pictures--ranged between a high of .500 for one editor and a low of .055 for another editor. The mean correlation was .280.

When another six editors were given detailed demographic information (sex, age, position in the household, education, occupation, income, home ownership, car ownership, religion, politics, favorite sports, hobbies, newspaper and magazine subscriptions, and movie-going habits) on the person whose picture preferences he was trying to judge, the correlations between the editors' ranking and the actual rankings increased only slightly--ranging from a high of .453 to a low of -.069. The mean correlation was .296.

The most significant improvement in the editors' ability to predict another person's rankings of the 60 pictures occurred when the editors were told how a particular person had ranked a set of 60 pictures and then were asked to rank a similar set of pictures. The editors' predictive accuracy ranged from .799 to .375 with a mean correlation of .527.

When a fourth set of editors were given both detailed demographic information and a ranking of a similar set of 60 pictures--the predictive accuracy was about the same, ranging from .705 to .310, with a mean correlation of .525.[2]

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[2]Ibid., pp. 116-117, 131, and 135.

Why was getting a person's "ranking" (Q-sort) of the
60 pictures such a great help to the editors in predicting
how that person would rank a similar set of pictures?

Said Kao:

> An editor's ability to predict depends upon his
> understanding of a reader and, most important, his
> intelligence in generalizing from his understanding
> of his reader's response system and applying his
> generalizations to a new set of stimuli. A reader's
> Q-sort of 60 pictures or a Q-factor array of 60
> pictures reveals clearly that reader's or that group's
> response system. When an editor is presented a set
> of pictures in the rank order a particular reader
> sorted them and is asked to look through the pictures
> and observe which kinds of pictures that given reader
> values highly and which kinds he rejects highly, he
> is provided helpful reference in a systematic way.
> In the same manner, Q-factor arrays of 60 pictures,
> which are composed of groups of similar individual
> Q-sorts of many readers, can give the same practical,
> systematic help to the editor in predicting large
> audience segments.[3]

Though Kao's study dealt with pictures and our final
study dealt with music, the methodology employed in the two
studies were similar. Kao asked her subjects to rank (Q-
sort) 60 specific pictures. Because <u>we</u> used actual selec-
tions of music (which could not be shuffled and re-shuffled
like pictures) we asked our subjects to rate the 60 selec-
tions. These ratings were then compared with one another
to produce "rankings" (Q-sorts) of the 60 selections by
each subject in our study. Through a process known as a
factor analysis of persons, these rankings (Q-sorts) of
individuals were then compared--resulting in four typologies

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[3]<u>Ibid</u>., p. 135.

(Q-factor arrays). Each typology represented a large segment of the audience which ranked the 60 selections similarly.[4]

Kao's study sought to find out the kind of information that would be most helpful to the editor in trying to more accurately predict the kinds of pictures that would be liked and disliked. The music programmer, too, wants information that will help him to more accurately predict the kinds of music that will be liked and disliked.

Kao's study found that knowledge of how a person ranked a particular set of pictures (a Q-sort) helped the editors to more accurately predict the kinds of pictures that person would find most pleasing and least pleasing. Our study provides the music programmer with Q-arrays (rankings of the 60 selections) for the major typologies in the Lansing area audience. This specific kind of information should help the music programmer in more accurately predicting the kinds of music that these typologies would find most pleasing and least pleasing.

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[4]For a more thorough explanation of Q methodology (which was used in both this music preference study and in Kao's study) see: William Stephenson, The Study of Behavior: Q-Technique and Its Methodology (Chicago: University of Chicago Press, 1953), and/or A. D. Talbott, "The Q Block Method of Indexing Q Typologies," A paper presented at 1963 AEJ Convention, Lincoln, Nebraska (East Lansing, Michigan: Michigan State University, Communications Research Center, 1963).

## The Relationship Between the Findings of
## Our "Final Study" and Previous Studies

In the first chapter, we discussed three previous music preference studies (the 1957 Whan study, the 1958 Thompson study, and the 1959 KING study), as well as the 1962 CBS study which (while not a music preference study) contained information of interest to music preference researchers.

The three previous music preference studies indicated that numerous cultural variables are related to the liking and disliking of various kinds of music. Neither the KING or the Whan study found the variable of "sex" to be a significant determinant of preferences. However, all three studies found that the variable of "age" was the most significant of the variables which they considered. In addition, the Whan and Thompson studies showed that the level of "formal education" had a definite affect on preferences. The Thompson study noted the importance of "social class" as a music preference variable--and pointed out some striking preference differences between persons living in different geographical regions of the nation. The Whan study found a few minor preference differences between persons living on farms and those living in urban areas. The Thompson study found a few minor differences between persons living in large and small communities.

Utilizing a wider array of music, as well as a different method of collecting and analyzing the data, our

final study verified that persons of different age levels and education levels do tend to have different music preferences. In addition, we found that "music background" and "knowledge of formal music terminology" had a bearing on music preferences.

As discussed in the first chapter, both the Whan and Thompson studies found a remarkably high level of popularity for the category "Waltzes and Sweet Music--As played by Guy Lombardo, Wayne King, and Lawrence Welk." In our final study, two selections of "sweet music" were used: one by Guy Lombardo and the other by Russ Morgan. Neither selection was named one of the 15 best liked selections by any of the four typologies.

On the other hand, both the Whan and Thompson studies found that the category "Latin-American" music was least often mentioned as a top favorite category. In our final study, the "Latin-flavored" selection "Granada" achieved a high degree of acceptance by all of the typologies with positive standard scores of .93 on Type A, .36 on Type B, 1.47 on Type C, and 2.05 on Type D.

The Whan study asked the question whether there was any kind of music so disliked that when the listener heard it he would turn the radio off or re-tune the set. The Whan study found that "classical music" was the most disliked category of music by teenagers; 62% of the boys and 58% of the girls disliked "classical music." It was the second most disliked category by adults with 21% of the

men and 18% of the women indicating a strong dislike for this category.

Our final study also found a strong rejection of classical music on the part of many people--especially younger persons. Type A (representing 48% of the Lansing area population age 12 and over) completely rejected classical music, preferring all of the popular selections to any of the classical selections. Ten of the 17 elementary and secondary students, who took part in the final study, held membership in Typology A. Three of the "students" were in Type D--a typology which exhibited less acceptance of the classical selections than either of the two older typologies (Types B and C).

Nonetheless, our final study also indicated that while a large segment of the audience disliked any kind of classical music, there was also a large segment that did like particular kinds of classical music--when given an opportunity to actually hear specific selections and react toward them.

The Whan study found the category "rock-and-roll" to be the most disliked category by adults; 35% of the men and 26% of the women said they disliked this category so much they would turn the radio off or re-tune the set if they heard such music. The KING study found that over 62% of the "raucous rock-and-roll" selections, used in their study, were "disliked" by persons age 22 and over. All three studies found that the liking for this kind of music

tended to decline among the older age groups. Our final
study used one selection of "raucous rock-and-roll":
Freddie Cannon singing "Palisades Park." Of all the 60
selections used in our final study, no other evoked such
strong pro and con response. It was one of the five best
liked selections of Types A and D (the two youngest typo-
logies, representing 51% of the Lansing area population
age 12 and over). It was one of the three least liked
selections of both of the older typologies (Types B and C,
representing 49% of that population).

The KING study found that two categories, representing
the "musical past" ("Gold Records" and "Standards"), achieved
great popularity among persons age 17 and over; while "cur-
rent hits," particularly "raucous" rock-and-roll, achieved
a relatively low level of acceptance by persons age 17
and over. Though our final study found the rock-and-
roll selection by Freddie Cannon to be strongly rejected by
the two "oldest" typologies, our final study also found the
rock-and-roll selection to be "liked" by numerous persons
age 22 and over. Of the 25 persons in Type A (the hit parade
typology), 15 were adults age 22 and over.

While it is true that Types B and C (the oldest typo-
logies) tended to react more favorably to the "older"
popular selections, rather than the recent hit parade selec-
tions (in the sense that none of the recent hit parade selec-
tions were among their 15 best liked selections), it is also
true that the two older typologies tended to react more

vigorously against <u>certain</u> "older" popular selections, than they did against <u>certain</u> "recent hit parade" selections. For example, Type B rejected the Dukes of Dixieland selection more strongly than <u>seven</u> of the eight recent hit parade selections used in the final study. Further, Type C rejected the Frankie Yankovic polka selection much more strongly than <u>six</u> of the eight recent hit parade selections used in the study.

The CBS study indicated a high level of preference for instrumental music, rather than vocals--particularly among those persons who called themselves "Classical or Semi-Classical" listeners. Our final study, too, suggested that the "Classical" and "Semi-Classical" typologies had a greater interest in instrumental music than the other typologies. For Type B (the classical typology) and Type C (the semi-classical typology), 11 of the 15 best liked selections were instrumentals. Type C (the semi-classical typology) particularly favored instrumentals, rather than vocals. Of type C's 12 <u>least</u> liked selections, all 12 were vocals.

### Limitations of a Music Preference Study

The typological data of our music preference study, based on a factor analysis of persons, gives the radio music programmer an idea of the music preferences of the "potential" radio audience age 12 and over in the Lansing area. The radio programmer should not confuse this with the kind of

information found in a 1966 "ratings report" of radio sta-
tions. Each measures a different kind of information.

The rating services measure the popularity of "radio
stations." Our factor analysis measured "music preferences."
While music is a very important ingredient in the program-
ming of most radio stations, there are a number of other
non-music elements in the programming of any station which
affect its popularity.

Further, the rating services measure the percentage
of people who are listening to a particular radio station
at a particular moment in time. Since some people tend to
listen to the radio more than others, the preferences of
the more frequent listeners would tend to become more im-
portant in "ratings," than the preferences of those persons
who tend to listen to the radio less frequently.

Our factor analysis measured the preferences of
"different" persons in the population, without regard to
their radio listening habits. If there is a tendency for
persons who prefer some kinds of music to listen less fre-
quently, then the radio station which plays that kind of
music would have smaller ratings. Actually, however, such
a station might be reaching more "different" people during
the course of a week's programming.

Thus, even in a hypothetical situation where the
Lansing area audience had four stations to listen to--one
programming Type A music, a second programming Type B music,
a third programming Type C music, and a fourth programming

Type D music--a radio ratings report would probably not
show the identical percentages which the typologies repre-
sent in the population.

The typological data gives the music preferences of
the Lansing area audience.  It is up to the local radio
station to find ways of attracting the audience to its
station.

Even if area radio stations presented the kinds of
music each of the typologies liked, some persons who hold
these preferences still might not listen to the programs.
The reasons are varied:

1.  In such cases where two or more persons are lis-
tening to the same radio at the same time, one or more
persons may be forced to bow to the programming preferences
of a friend or family member.

2.  The potential listener might not be "aware" of
the availability of programming he may enjoy.  Many stations
have found that by specializing in a particular kind of
music programming on a consistent, daily, basis--it increases
the audience's "awareness" that a particular kind of music
is available on their station.

3.  Many potential listeners are not available to
listen to such programming because of obligations at work,
school, or with avocational activities.  Program scheduling
must take into consideration the "available audience."

4.  Many potential listeners for certain kinds of
music may be attracted to listen to various non-music kinds

of radio programming. Thus the person with particular kinds of music preferences may prefer to hear play-by-play sports broadcasts, news, discussion programs, or other kinds of radio programming which may be available.

5. Many potential listeners for certain kinds of music may prefer to be entertained in other ways. They may be attracted by concerts, lectures, "heavy" reading, television programs, etc.

6. If a particular kind of music programming were available on more than one station, the potential listeners might prefer to listen to the station which presented such programming in a manner which was more appealing to them. In this case, the personality and comments of the music host, the commercial policy of the station, and other non-music elements of programming would take on added importance.

### Programming Guidelines

In this section we shall discuss how the typological data in this thesis (dealing with a factor analysis involving 30 popular and 30 classical selections) suggests some programming guidelines for radio stations wishing to: (1) elevate musical taste, and (2) program classical music. In addition, we shall discuss the implications of the data for (1) popular music programming, and (2) non-music programming.

## Elevating Musical Taste

Can a radio station actually raise the musical tastes of the radio audience? Certainly, there are risks involved in losing part of the station's audience, but the typological data gives some helpful guidelines to those stations that want to make the effort. This "mission" of developing an appreciation of more sophisticated kinds of music, including classical music, should be of particular interest to educational radio stations.

Basically, the station's program strategy would be to present selections of music which the audience likes-- along with more sophisticated music which is not too strongly rejected. The bulk of the program, or perhaps every other selection, might be devoted to music similar to those selections which the three major typologies tended to like. These kinds of selections are included in the consensus agreement items mentioned in Chapter IV--selections which had positive standard scores on the three major typologies. For example, some of the selections might be similar to "In the Mood" played by the Tommy Dorsey Band as conducted by Warren Covington. This consensus agreement selection was strongly liked by Type A (the hit parade typology) and Type C (the semi-classical typology), while being mildly accepted by Type B (the classical typology). "Sandwiched" between the consensus agreement selections would be a selection similar to Selection 15 (a Grieg piano concerto). This selection was not too strongly rejected by

Type A (when compared to its rejection of other classical
selections).  At the same time, it was substantially liked
by the other two major typologies (Types B and C)--and was
ranked among the best liked 15 selections by both of these
typologies.

While there is a risk that many Type A persons would
turn the radio off or re-tune the set to another station
when Selection 15 was presented, there is also the possi-
bility that many Type A persons would continue to listen
to that one selection, with the idea in mind that the next
selection to be played would be one they enjoyed.  By
playing selections which attract a particular typology,
and interspersing within the music program, selections
which are not too displeasing to that typology, many per-
sons in that type might be "educated" into eventually
enjoying a wider range of music.

Another technique in raising the level of apprecia-
tion for more sophisticated kinds of music was suggested by a
study conducted in Denmark.  It was found that of two
identical radio music programs--one introduced as a class-
ical program and the other as a popular program--the so-
called "popular music" program had many more listeners.
The results of this study suggest that a program designed
to elevate music taste might best accomplish its purpose
if the classical selections were not "labeled," as such,
on the music program.

However, the music notation test which was adminis-
tered in our final study indicated a strong relationship
between a knowledge of formal music terminology and member-
ship in typologies which liked classical music.  This sug-
gests that effective efforts, designed to elevate musical
taste toward classical music, should include stronger
efforts to include serious vocal training and/or instrument
study in the curriculum of the schools.  A good school music
program would do much to acquaint young people with "serious"
music.

## Classical Music Programming

Three of the four typologies, representing 52% of the
Lansing area population age 12 and older, indicated that
they enjoyed certain kinds of classical music more than
they did certain kinds of popular music.  These three typo-
logies placed numerous classical selections among their
15 best liked selections of music.

The typological data suggests, therefore, that with
10 radio stations (five AM and five FM frequencies) in the
Lansing-East Lansing area, the judicious programming of
large quantities of classical music by at least one station
could win for them a significant share of the potential
audience.  Furthermore, the potential audience for the
classical music station would be an older and better edu-
cated audience than for stations which played music that
Type A (the hit parade typology) liked.

In seeking to maximize the audience for the classical music station, the music programmer of that station would chiefly be concerned with the preferences of Type B (which represents 30% of the potential audience and had the strongest interest in classical music of any of the typologies). He would also be very concerned with the preference patterns of Type C (the semi-classical typology) which represents 19% of the potential audience. Type D's preferences would tend to be of little importance since it represents a small segment (3%) of the potential audience age 12 and over.

The music programmer for the classical music station would, for the most part, program music similar to the classical selections which both Types B and C liked. He would recognize that by playing selections which one type liked and the other strongly rejected, he would risk alienating a large share of his potential audience.

Earlier, in Chapter IV, we discussed the 13 classical selections that both Types B and C liked. Eleven of the 14 selections were instrumentals. All three of the piano selections used in the study appeared on the list. The two piano concertos were particularly liked by the two typologies. Historically, 10 of the 13 selections ranged from the Romantic era to the Classical era.

The classical station which wanted to maximize its audience would avoid playing selections like those which the three major typologies tended to reject. This would

mean avoiding selectons like: (1) the three "opera-sounding" soprano vocals, (2) Selection 43, Dufay's "Sequence for WhitSunday," and (3) Selection 47, Webern's "Six Pieces for Orchestra."

The station might also consider incorporating some selections of popular music within its classical program-ming, being careful to play music similar to those selec-tions which both Types B and C tended to find agreeable. For example, Selection 56 (Mantovani's Orchestra playing "If I Loved You") was very well liked by both Types B and C.

But even with careful music program planning, the classical music station could not be expected to monopolize the loyalty of Types B, C, or D. All three types indi-cated that they also enjoyed a good deal of popular music. If the other stations in the area were playing the kinds of popular music that the persons in these typologies liked, it would be expected that many of them would be frequently listening to these other stations--particularly if the class-ical station were playing some kind of classical music which persons in that typology were not particularly fond of.

The classical music station would be working with the known handicap that 48% of the potential audience would probably never listen to it, since they reject all forms of classical music. However, through the judicious use of some popular selections, which all three of the major types enjoy, the classical music station might occasionally win some of the reluctant 48% to their kilocycles or megacycles.

Perhaps through these occasional periods of listening, some of the 48% would acquire a taste for certain kinds of classical music and eventually become a more regular part of the audience.

## Implications for Popular Music Programming

The factor analysis of persons data indicqtes that while 52% of the Lansing area population, age 12 and over, likes some kinds of classical music more than some kinds of popular music--100% of that population likes some kinds of popular music more than some kinds of classical music. Therefore, while one or more radio stations may find that the judicious programming of classical music would be good programming strategy, the bulk of the 10 stations in the Lansing-East Lansing area (five AM and five FM frequencies) should find it good program strategy to concentrate their programming exclusively on some kind of popular music.

For those stations which would choose to program popular music on an exclusive basis, the factor analysis of persons data (which takes into consideration the class- ical selections) is not too useful. The typologies, and their patterns of preference, are influenced to a great extent by the reactions of the sample toward the 30 classical selections--selections which most stations would not choose to program, anyway, because of the strong rejection of these selections by a very high percentage of the potential audi- ence.

For the popular music stations, a more useful factor analysis of persons would take into account only the responses toward the 30 selections of popular music. This would produce typologies of persons whose best and least liked selections were strictly from the realm of popular music. It would give popular music stations a clearer guide in the structuring of their programming.

It should be stressed, however, that even such a factor analysis would only be a guide in popular music programming. The particular manner in which such data would be used would depend on the competitive programming situation in the market at the time. The broadcaster who is interested in making program changes, in order to acquire better ratings for his station, would utilize such a guide in conjunction with: (1) a thorough analysis of the ratings for each station in the market, (2) a thorough content analysis of the music programming and non-music programming of each station in the market, and (3) his good judgment based on the facts uncovered in his research.

## Implications for Non-Music Programming

In addition to giving the programmer an idea of the major patterns of music preference in the area, the typological analysis gives him information about the persons in the various typologies. He knows that the persons in one typology are younger or older than in others, have greater or lesser amounts of formal education, etc.

This kind of knowledge should assist him in planning the non-music elements of programming which accompany the music. It should stimulate him to develop those non-music program ingredients which persons of such demographic characteristics should find entertaining or informative.

Such knowledge should also assist the promotion department in attracting listeners to the station. By knowing more about the kinds of listeners who are most likley to be interested in particular kinds of radio programming, the promotion department should be able to more effectively reach such persons and more effectively make such persons "aware" that the station is presenting programming which they should find enjoyable.

Also, the typological data should assist the broadcaster in gaining advertisers for particular kinds of products and services, since the advertiser could get a general demographic picture of the station's audience simply from an analysis of the music played on the station.

## Future Research

The data in this study is of special interest to the Lansing market--for as pointed out previously, preferences do differ to some extent, between markets. Further, since half of the selections used in our study were from the realm of classical music, and our factor analysis of persons involved typologies based on the reactions to all 60 selections, the results of our study are of particular interest

to stations interested in programming classical music.
The data collected in this study would take on added im-
portance for broadcasters interested in programming popular
music if the data were subjected to a factor analysis of
persons which considered only the responses to the 30 selec-
tions of popular music.

This research project has attempted to provide broad-
casters with some guidelines in the programming of music.
Obviously, it does not answer all the questions that
all broadcasters made about music programming. The chief
value of this project is to suggest an approach to the
measurement of music preferences which: (1) can provide more
accurate and useful kinds of information than the methods
of measurement employed in previous studies, and (2) can
be duplicated by broadcasters in their markets to find
answers to music programming questions which are of partic-
ular interest to them in their particular competitive
situations.

In addition, since music is only one of the ingredi-
ents in successful radio programming, it would be helpful
and feasible to conduct a large scale study which relates
non-music program preferences to typological membership
based music preferences.

In many markets today, the efforts of broadcasters
to reach a significant share of the audience is highly com-
petitive--the audience has many alternative radio stations
which they may listen to. In many instances, broadcasters

are simply relying on "hunches" in their attempts to attract an audience to their frequency. It is time for broadcasters to translate their hunches into hypotheses--and subject the hypotheses to experimental scrutiny such as we have done in this study. Such studies would give broadcasters a better idea of what the audience wants and needs from radio. Such studies should profit not only the broadcasting industry, but also the listening public.

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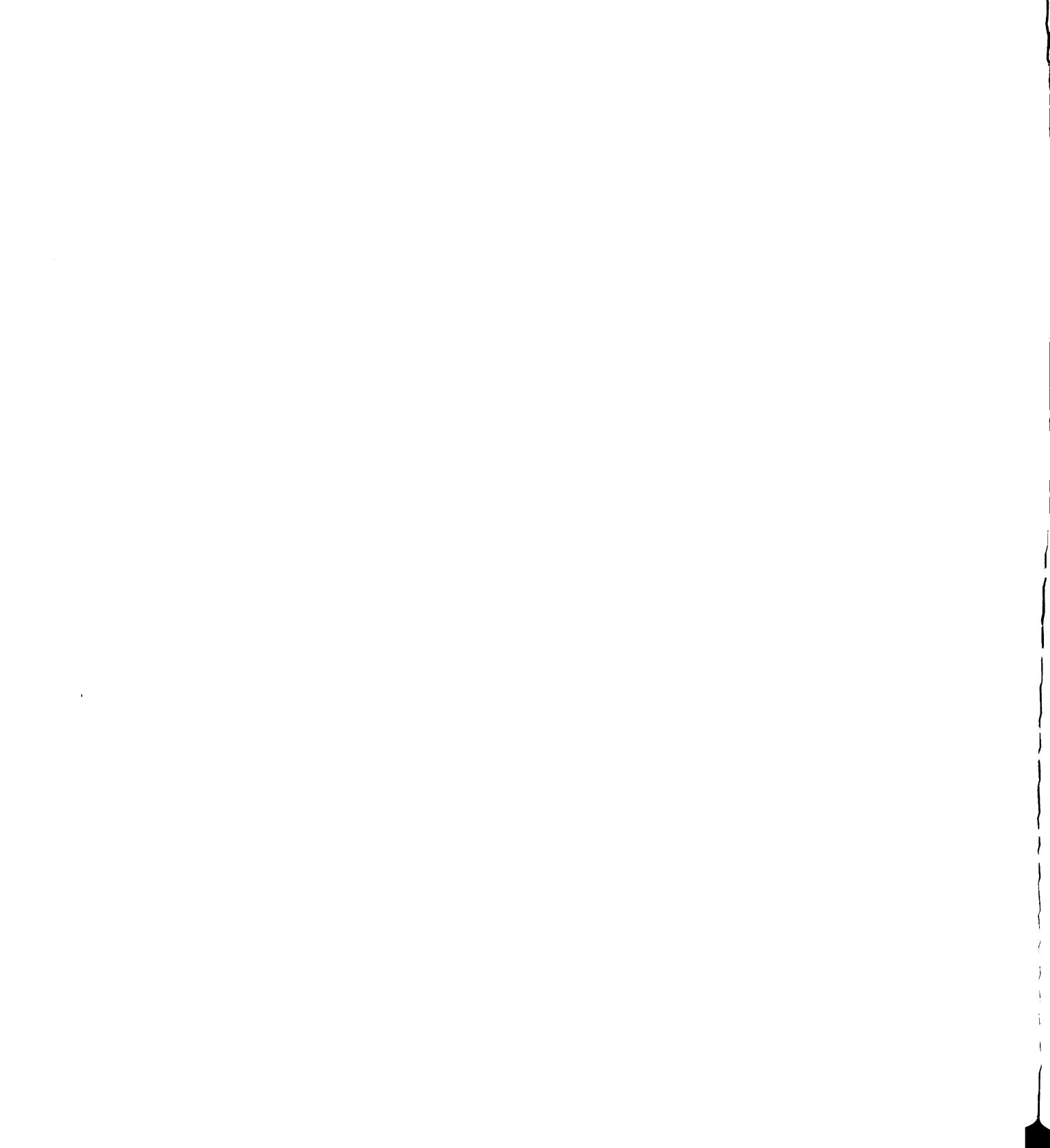
APPENDICES

APPENDIX I

## WHAN AND THOMPSON STUDIES--THE 14 CATEGORIES OF MUSIC AND THEIR DESCRIPTIONS EXACTLY AS THEY WERE WORDED IN BOTH STUDIES

| No. | Categories | Description |
|-----|-----------|-------------|
| 1 | Classical | As played by N. Y. Philharmonic Orchestra |
| 2 | Concert | As played by Boston "Pops" Orchestra or the Telephone Hour |
| 3 | Showtunes & Musical Comedy | "Oklahoma," "Guys and Dolls," "Carousel," "The King and I," "Red Mill," etc. |
| 4 | Barbershop Quartettes | Songs like "Old Mill Stream," "Sweet Adeline," etc. |
| 5 | Hymns and Spirituals | Like "Rock of Ages, "Swing Low," or "Old Rugged Cross" |
| 6 | Waltzes and "Sweet" Music | As played by Guy Lombardo, Wayne King, Lawrence Welk |
| 7 | Old Familiar Songs | Like "Alexander's Ragtime Band," "Moonlight Bay," etc. |
| 8 | Band Music | As "Stars and Stripes Forever," "Washington Post," "Moonlight Bay," etc. |
| 9 | Hawaiian | "Song of the Islands," "Hawaiian War Chant," "Sweet Leilani" as played by Lanny McIntyre and others. |
| 10 | Latin-American | Rhumbas, tangos, etc. of the type played by Xavier Cugat, Noro Morales, Perez Prado and others. |
| 11 | Western and Country | Cowboy and country songs, square dances, etc. |
| 12 | Current Popular Music | "Rocka Bye Your Baby," "It Only Hurts a Little While," "Wayward Wind," True Love," "There I've Said It Again," etc. |
| 13 | Swing or Jazz | Dixieland, "Bop," Progressive jazz, and swing as played by Count Basie, Dizzy Gillespie, Stan Kenton, Duke Ellington |
| 14 | Rock and Roll;Rhythm and Blues | As played by Bill Haley, Fats Domino, Elvis Presley, Clyde McPhatter, and others. |

APPENDIX II

THE KING STUDY--THE FIVE CATEGORIES USED IN
THE STUDY,TOGETHER WITH EXAMPLES OF THE SE-
LECTIONS USED TO REPRESENT EACH CATEGORY

Current Hits with raucous rock-and-roll beat or "screaming"
rhythm-and-blues lyrics.
    Examples:  "Tiger" by Fabian, "Big Hunk of Love" by
    Elvis Presley, "There Goes My Baby" by The Drifters,
    "Forty Miles of Bad Road" by Duane Eddy, "It Was I"
    by Skip and Flip, and "Mona Lisa" by Conway Twitty.

Current Hits excluding raucous rock-and-roll.
    Examples:  "What a Difference a Day Makes" by Dinah
    Washington, "Angel Face" by Jimmy Darren, "M.T.A."
    by The Kingston Trio, "Wonderful You" by Jimmie
    Rodgers, "Twixt Twelve and Twenty" by Pat Boone,
    "Small World" by Johnny Mathis, and "Til There Was
    You" by Anita Bryant.

Familiar Standards arranged in such a way that the melody
line is easy to follow.
    Examples:  "Breezin' Along With the Breeze" by The
    Four Lads, "I Hear a Rhapsody" by Ray Conniff, "Moon-
    glow" by The McGuire Sisters, "Drifting and Dreaming"
    by Gordon Jenkins, "All of Me" by Billy May, "I've
    Got You Under My Skin" by Frank Sinatra, "Blue Moon"
    by The Norman Luboff Choir, and "Tenderly" by Pat
    Boone.

Unfamiliar Tunes plus familiar tunes with arrangements that
made them difficult to recognize.
    Examples:  "Your Family" by Matt Dennis, "Idaho" by
    Dakota Staton, "Everybody Loves My Baby" by The John
    LaSalle Quartet, "Quincy Hoppers" by Les Elgart, "You're
    Laughing At Me" by David Allen, "I Want to Be Happy" by
    June Christy, "Jane's Jump" by the Bob Florence Band,
    and "Small Fry" by The Hi-Los.

Gold Records.  All million-sellers excluding the rock-and-
roll type.
    Examples:  "Blue Tango" by LeRoy Anderson, "Secret
    Love" by Doris Day, "Mr. Sandman" by The Chordettes,
    "Riders in the Sky" by Vaughn Monroe, "Ebb Tide" by
    Frank Chaksfield, "True Love" by Bing Crosby and
    Grace Kelly, "Marie" by Tommy Dorsey, "Memories Are
    Made of This" by Dean Martin.

APPENDIX III


COMPARISON OF PREFERENCE RATINGS BY DEMOGRAPHIC
GROUPINGS (THREE AGE GROUPS AND FIVE AGE-
EDUCATION GROUPS)


The preference ratings on the 21 point rating scale, for the 49 persons in the sample, were converted to a five point rating scale in the following manner:

(1) scores from -10 to -8 were coded as "one"..."terrible."
(2) scores from - 7 to -4 were coded as "two"..."dislike."
(3) scores from - 3 to +3 were coded as "three"..."neutral."
(4) scores from +4 to +7 were coded as "four"..."like."
(5) scores from +7 to +10 were coded as "five"..."terrific."

For each of the 60 selections (30 classical and 30 popular), the ratings of persons in the applicable demographic category were averaged. These averages are presented in the following pages.

Below is a comparison of how the demographic groupings varied with regard to certain characteristics.


### THE THREE AGE GROUPS

|  | 12-22 | 23-49 | 50+ |
|---|---|---|---|
| Mean Age | 15.6 | 37.2 | 57.4 |
| Education (grades completed) | 9.2 | 13.4 | 12.5 |
| Music notation test | 4.4 | 4.1 | 3.9 |
| Music Background |  |  |  |
|     High | 3 | 9 | 3 |
|     Medium | 7 | 5 | 2 |
|     Low | 7 | 4 | 9 |
| Sex--Male | 9 | 6 | 8 |
|     Female | 8 | 12 | 6 |

### THE FIVE AGE-EDUCATION GROUPS

|  | Ad.-Col. | Ad.-H.S. | Ad.-D.O. | St.-Col. | St.-Sec. |
|---|---|---|---|---|---|
| Mean Age | 44.4 | 41.7 | 51.8 | 20.3 | 13.5 |
| Education (grades completed) | 15.6 | 12.1 | 9.3 | 13.8 | 6.8 |
| Music notation test | 4.9 | 3.1 | 3.1 | 6.0 | 3.8 |
| Music Background--High | 8 | 3 | 2 | 1 | 1 |
|     Medium | 3 | 3 | 1 | 2 | 5 |
|     Low | 5 | 3 | 5 | 1 | 6 |
| Sex--Male | 7 | 3 | 4 | 2 | 7 |
|     Female | 9 | 6 | 4 | 2 | 5 |

APPENDIX III--<u>Continued</u>

THE THREE AGE GROUPS--THE 30 POPULAR SELECTIONS--
MEAN SCORES ON THE FIVE POINT PREFERENCE RATING
SCALE

| Sel. No. | Performer | Age 12-22 | Age 23-49 | Age 50+ |
|---|---|---|---|---|
| 2 | Bent Fabric | 4.3 | 4.1 | 3.4 |
| 4 | Guy Lombardo | 3.4 | 4.0 | 3.9 |
| 6 | Paul Whiteman | 3.2 | 3.3 | 3.6 |
| 8 | Stanley Black | 4.5 | 4.2 | 3.6 |
| 10 | Ann Richards | 2.5 | 2.5 | 1.9 |
| 12 | Marching Band | 4.1 | 4.0 | 4.2 |
| 14 | Harmonicats | 4.4 | 3.9 | 3.9 |
| 16 | Lettermen | 4.7 | 3.7 | 3.2 |
| 18 | Julie Andrews | 3.7 | 4.3 | 3.9 |
| 20 | Johnny Horton | 4.4 | 3.7 | 3.1 |
| 22 | Frank Sinatra | 3.8 | 3.9 | 3.2 |
| 24 | Freddie Cannon | 4.4 | 3.1 | 3.0 |
| 26 | Jackie Gleason | 4.0 | 4.1 | 3.6 |
| 28 | Jimmy Durante | 3.6 | 3.8 | 3.9 |
| 30 | Dukes of Dixie | 3.4 | 3.3 | 3.4 |
| 32 | Ken Griffin | 3.8 | 3.9 | 3.9 |
| 34 | Russ Morgan | 3.5 | 3.7 | 3.7 |
| 36 | Saul Goodman | 4.1 | 3.3 | 3.3 |
| 38 | Hawaiian | 4.0 | 4.0 | 4.2 |
| 40 | Dave Brubeck | 4.1 | 3.4 | 3.4 |
| 42 | Buffalo Bills | 3.7 | 3.6 | 3.6 |
| 44 | Frankie Yankovic | 3.7 | 3.6 | 3.9 |
| 46 | Four Lads | 4.1 | 4.0 | 3.6 |
| 48 | Mitch Miller | 3.7 | 4.2 | 3.9 |
| 50 | Tennessee Ernie Ford | 4.0 | 4.0 | 4.3 |
| 52 | Warren Covington | 4.0 | 4.2 | 3.9 |
| 54 | Kingston Trio | 4.5 | 3.7 | 3.4 |
| 56 | Mantovani | 4.1 | 4.3 | 3.7 |
| 58 | Walter Brennan | 4.2 | 3.3 | 3.2 |
| 60 | Del Wood | 3.7 | 3.8 | 3.9 |

APPENDIX III--<u>Continued</u>

THE THREE AGE GROUPS--THE 30 CLASSICAL SELECTIONS--
MEAN SCORES ON THE FIVE POINT PREFERENCE RATING
SCALE

| Sel. No. | Description | Age 12-22 | Age 23-49 | Age 50+ |
|---|---|---|---|---|
| 1 | Monks, choir | 3.2 | 2.9 | 3.3 |
| 3 | Brahms, symphony | 3.2 | 3.6 | 3.6 |
| 5 | Stravinsky | 2.7 | 2.8 | 3.2 |
| 7 | Brahms, Requiem | 2.9 | 3.2 | 3.4 |
| 9 | Bach, organ | 2.7 | 2.8 | 3.5 |
| 11 | Strauss, "Don Juan" | 3.2 | 3.6 | 3.4 |
| 13 | Byrd, madrigal | 2.5 | 2.9 | 3.0 |
| 15 | Grieg, piano | 2.9 | 3.5 | 3.6 |
| 17 | Webern, orchestra | 2.5 | 2.1 | 3.0 |
| 19 | Mozart, symphony | 3.4 | 3.3 | 3.6 |
| 21 | Beethoven, piano | 3.4 | 3.0 | 3.6 |
| 23 | Debussy, "La Mer" | 2.9 | 2.7 | 3.4 |
| 25 | Verdi, opera | 2.6 | 3.0 | 3.5 |
| 27 | Mendelssohn, violin | 3.2 | 2.9 | 3.9 |
| 29 | Varese, soprano | 2.2 | 2.1 | 2.8 |
| 31 | Palestrina | 3.6 | 3.3 | 3.8 |
| 33 | Schubert, symphony | 3.5 | 3.4 | 3.9 |
| 35 | Shostakovich | 3.6 | 3.1 | 3.5 |
| 37 | Verdi, Requiem | 2.4 | 2.6 | 3.1 |
| 39 | Bach, orchestra | 3.2 | 2.7 | 3.6 |
| 41 | Respighi | 3.1 | 2.8 | 3.2 |
| 43 | Dufay | 2.9 | 2.4 | 3.3 |
| 45 | Rachmaninoff, piano | 3.2 | 3.8 | 3.8 |
| 47 | Webern, orchestra | 2.6 | 2.2 | 2.9 |
| 49 | Mozart, "Eine..." | 3.2 | 3.3 | 3.8 |
| 51 | Beethoven, string | 2.7 | 2.6 | 3.6 |
| 53 | Debussy, "...Faun" | 2.6 | 2.5 | 3.3 |
| 55 | Wagner, soprano | 2.1 | 2.4 | 2.8 |
| 57 | Tchaikovsky, violin | 2.8 | 2.9 | 3.7 |
| 59 | Schoenberg, soprano | 1.8 | 2.1 | 2.3 |

APPENDIX III--Continued

THE FIVE AGE-EDUCATION GROUPS--THE 30 POPULAR
SELECTIONS--MEAN SCORES ON THE FIVE POINT PRE-
FERENCE RATING SCALE

| Sel. No. | Performer | Adult College | Adult High School | Adult Drop-Out | Student College | Student Secon-dary |
|---|---|---|---|---|---|---|
| 2 | Fabric | 3.7 | 4.1 | 3.6 | 4.0 | 4.4 |
| 4 | Lombardo | 3.9 | 4.2 | 4.0 | 3.3 | 3.3 |
| 6 | Whiteman | 3.4 | 3.2 | 3.6 | 3.0 | 3.3 |
| 8 | Black | 4.1 | 4.0 | 3.6 | 4.5 | 4.5 |
| 10 | Richards | 2.5 | 2.1 | 1.9 | 4.0 | 2.1 |
| 12 | Marching | 3.8 | 4.4 | 4.5 | 3.5 | 4.3 |
| 14 | Harmonicats | 3.5 | 4.3 | 4.1 | 4.0 | 4.5 |
| 16 | Lettermen | 3.1 | 4.2 | 3.5 | 4.8 | 4.7 |
| 18 | Andrews | 4.4 | 4.1 | 3.6 | 4.3 | 3.4 |
| 20 | Horton | 2.9 | 3.9 | 4.0 | 4.0 | 4.7 |
| 22 | Sinatra | 3.6 | 3.9 | 3.4 | 4.0 | 3.7 |
| 24 | Cannon | 2.5 | 3.7 | 3.4 | 4.3 | 4.5 |
| 26 | Gleason | 3.8 | 4.2 | 3.6 | 4.3 | 3.9 |
| 28 | Durante | 3.4 | 4.1 | 4.1 | 3.5 | 3.8 |
| 30 | Dixie | 3.3 | 3.4 | 3.3 | 3.3 | 3.5 |
| 32 | Griffin | 3.6 | 4.4 | 3.9 | 3.0 | 4.0 |
| 34 | Morgan | 3.6 | 4.0 | 3.6 | 3.3 | 3.6 |
| 36 | S.Goodman | 3.5 | 3.2 | 3.1 | 4.8 | 3.9 |
| 38 | Hawaiian | 3.5 | 4.6 | 4.8 | 3.8 | 4.1 |
| 40 | Brubeck | 3.6 | 3.3 | 3.0 | 5.0 | 3.9 |
| 42 | Buff. Bills | 3.0 | 4.2 | 4.1 | 3.3 | 3.8 |
| 44 | Yankovic | 3.3 | 4.1 | 4.3 | 3.8 | 3.8 |
| 46 | Four Lads | 3.6 | 4.4 | 3.5 | 4.5 | 3.9 |
| 48 | Mitch | 3.8 | 4.4 | 4.1 | 3.3 | 3.8 |
| 50 | Tenn. E.Ford | 3.6 | 4.7 | 4.5 | 3.5 | 4.3 |
| 52 | Covington | 3.9 | 4.1 | 4.1 | 4.0 | 4.0 |
| 54 | Kingston | 3.3 | 4.0 | 3.6 | 4.3 | 4.8 |
| 56 | Mantovani | 4.2 | 4.3 | 3.6 | 4.5 | 3.8 |
| 58 | W. Brennan | 2.8 | 3.8 | 3.6 | 3.5 | 4.5 |
| 60 | Del Wood | 3.6 | 4.2 | 4.0 | 3.8 | 3.7 |

APPENDIX III--Continued

THE FIVE AGE-EDUCATION GROUPS--THE 30 CLASSICAL
SELECTIONS--MEAN SCORES ON THE FIVE POINT PREF-
ERENCE RATING SCALE

| Sel. No. | Description | Adult College | Adult High School | Adult Drop-Out | Student College | Student Secondary |
|---|---|---|---|---|---|---|
| 1 | Monks, choir | 3.3 | 2.8 | 2.8 | 4.0 | 3.0 |
| 3 | Brahms, sym. | 4.2 | 3.0 | 3.3 | 4.3 | 2.7 |
| 5 | Stravinsky | 3.4 | 2.7 | 2.5 | 4.0 | 2.3 |
| 7 | Brahms, Req. | 3.6 | 2.8 | 3.1 | 3.8 | 2.7 |
| 9 | Bach, organ | 3.3 | 2.8 | 3.1 | 3.5 | 2.3 |
| 11 | Strauss | 3.8 | 3.3 | 3.3 | 4.0 | 2.8 |
| 13 | Byrd, madrigal | 3.1 | 2.8 | 3.0 | 3.3 | 2.2 |
| 15 | Grieg, piano | 3.9 | 3.1 | 3.4 | 3.5 | 2.6 |
| 17 | Webern, orch. | 2.6 | 2.2 | 2.5 | 3.5 | 2.2 |
| 19 | Mozart, sym. | 4.1 | 2.9 | 3.1 | 4.0 | 3.1 |
| 21 | Beethoven | 3.6 | 3.1 | 3.0 | 4.3 | 2.9 |
| 23 | Debussy | 3.3 | 2.7 | 2.8 | 4.0 | 2.6 |
| 25 | Verdi | 3.8 | 2.8 | 2.8 | 3.5 | 2.2 |
| 27 | Mendelssohn | 3.8 | 3.1 | 3.0 | 3.8 | 2.8 |
| 29 | Varese, sop. | 2.7 | 1.7 | 2.6 | 3.3 | 1.8 |
| 31 | Palestrina | 3.6 | 3.4 | 3.6 | 4.5 | 3.3 |
| 33 | Schubert | 4.0 | 3.1 | 3.6 | 4.3 | 3.2 |
| 35 | Shostakovich | 3.6 | 3.0 | 3.1 | 4.3 | 3.3 |
| 37 | Verdi, Req. | 3.0 | 2.3 | 2.9 | 3.8 | 1.9 |
| 39 | Bach, orch. | 3.6 | 2.4 | 3.1 | 4.3 | 2.7 |
| 41 | Respighi | 3.4 | 2.4 | 2.9 | 4.0 | 2.8 |
| 43 | Dufay | 2.9 | 2.3 | 3.1 | 3.3 | 2.8 |
| 45 | Rachmaninoff | 4.3 | 3.6 | 3.3 | 4.5 | 2.6 |
| 47 | Webern | 2.9 | 2.0 | 2.5 | 3.8 | 2.2 |
| 49 | Mozart | 4.1 | 3.1 | 3.1 | 4.0 | 2.8 |
| 51 | Beethoven | 3.4 | 2.4 | 3.1 | 3.3 | 2.3 |
| 53 | Debussy | 3.3 | 2.3 | 2.5 | 3.8 | 2.2 |
| 55 | Wagner | 3.1 | 1.7 | 2.5 | 3.5 | 1.6 |
| 57 | Tchaikovsky | 3.6 | 2.6 | 3.6 | 3.5 | 2.3 |
| 59 | Schoenberg | 2.4 | 1.6 | 2.1 | 3.3 | 1.3 |

APPENDIX IV

CATEGORIES AND SELECTIONS USED IN THE PRELIMINARY STUDY
(Only the introductions, given below in quotation marks, were mentioned to the subjects in the study.)

Category:  Original Cast Broadway Showtunes with female vocal

Selection One:  Written
Selection 25:  30 seconds    "From 'My Fair Lady' Julie Andrews sings 'Wouldn't It Be Loverly'."

Selection 13:  10 seconds    "From 'Camelot' Julie Andrews sings 'The Lusty Month of May'."

Selection 37:  60 seconds    "From 'My Fair Lady' Julie Andrews sings 'I Could
Selection 49:  60 seconds    Have Danced All Night'."

Category:  Baroque era organ fugues composed by Bach

Selection Two:  Written
Selection 26:  30 seconds    "E. Power Biggs is the organist.  Here is Johann Sebastian Bach's 'Fugue in G Minor'."

Selection 14:  10 seconds    "Robert Elmore playing the Atlantic City Convention Hall Organ on Johann Sebastian Bach's 'Fugue in C'."

Selection 38:  60 seconds    "Here is E. Power Biggs at the organ with 'Fugue in C
Selection 50:  60 seconds    Major' by Johann Sebastian Bach."

Category:  Standards.  Male vocal with a big band arrangement

Selection Three:  Written
Selection 27:  30 seconds    "Steve Lawrence sings 'Temptation'."

Selection 15:  10 seconds    "Eddie Fisher sings 'Breezin' Along with the Breeze'."

Selection 39:  60 seconds    "Next the voice of Frank Sinatra..'Five Minutes More'."
Selection 51:  60 seconds

APPENDIX IV--Continued

Category: Renaissance era madrigal singing

Selection Four: Written
Selection 28: 30 seconds   "Next the New York Pro Musica performs Byrd's 'The Sweet and Merry Month of May'."
Selection 16: 10 seconds   "The New York Pro Musica with Morley's 'My Bonnie Lass She Smileth'."
Selection 40: 60 seconds   "Noah Greenberg conducts the New York Pro Musica on a
Selection 52: 60 seconds   selection by Thomas Morley titled 'About the Maypole'."

Category: Jazz instrumental with a piano and small combo

Selection Five: Written
Selection 29: 30 seconds   "The Dave Brubeck Quartet plays 'Pennies from Heaven'."
Selection 17: 10 seconds   "The Dave Brubeck Quartet plays 'Jeepers Creepers'."
Selection 41: 60 seconds   "The Dave Brubeck Quartet plays "A Fine Romance'."
Selection 53: 60 seconds

Category: Romantic era opera with a male vocal

Selection Six: Written
Selection 30: 30 seconds   "Here is music from Verdi's "Il Trovatore'." (a male vocal)
Selection 18: 10 seconds   "Richard Tucker sings 'La donna è mobile'."
Selection 42: 60 seconds   "From Verdi's 'La Traviata' Glauco Scarlini sings
Selection 54: 60 seconds   Libiamo."

Category: Folk music with a male vocal

Selection Seven: Written
Selection 31: 30 seconds   "Burl Ives sings about 'Old Blue'."
Selection 19: 10 seconds   "Burl Ives with 'Ghost Riders in the Sky'."
Selection 43: 60 seconds   "Burl Ives with the story of 'John Henry'."
Selection 55: 60 seconds

APPENDIX IV--Continued

Category: Classical era string quartet music composed by Hayden

Selection Eight:  Written
Selection 32:  30 seconds    "The Juilliard String Quarter with Hayden's 'String Quartet in C, Opus 74, the 4th movement'."

Selection 20:  10 seconds    "The Budapest String Quartet with Hayden's 'Quartet in G Major, Opus 76, the 3rd movement'."

Selection 44:  60 seconds    "We feature the Juilliard String Quartet with an ex-
Selection 56:  60 seconds    cerpt from Hayden's 'String Quartet in C, Opus 77, the 4th movement'."

Category: Country-and-Western with a male vocal

Selection Nine:  Written
Selection 33:  30 seconds    "Billy Walker sings 'Charley's Shoes'."

Selection 21:  10 seconds    "Here's Jimmy Dean with 'Smoke That Cigarette'."

Selection 45:  60 seconds    "Johnny Cash sings 'In the Jailhouse Now'."
Selection 57:  60 seconds

Category: Romantic era symphony music composed by Brahms

Selection Ten:  Written
Selection 34:  30 seconds    "Leonard Bernstein conducts the New York Philharmonic on Brahms' 'Symphony No. 2 in D Major, Opus 73, the 4th movement'."

Selection 22:  10 seconds    "Josef Krips conducts the Vienna Philharmonic Orches-
                             tra on Brahms' 'Symphony No. 1 in C Minor, Opus 68, the 4th movement'."

Selection 46:  Written
Selection 58:  60 seconds    "Charles Munch conducts the Boston Symphony Orchestra on Brahms' 'Symphony No. 4 in E Minor, the 3rd movement'."

APPENDIX IV--Continued

Category: Rhythm-and-blues with a male solo or group vocal

Selection Eleven: Written
Selection 35:    30 seconds        "The Coasters sing 'Charlie Brown'."

Selection 23:    10 seconds        "Chubby Checker does 'The Twist'."

Selection 47:    60 seconds        "Here are the Coasters with 'Yakety Yak'."
Selection 49:    60 seconds

Category: Modern era orchestra music composed by Schoenberg

Selection Twelve: Written
Selection 36:    30 seconds        "Robert Craft conducts Arnold Schoenberg's
                                    'Variations for Orchestra, Opus 31'."

Selection 24:    10 seconds        "Dimitri Mitropoulos conducts the Philharmonic
                                    Orchestra of New York on Arnold Schoenberg's
                                    'Symphony Elegy for String Orchestra'."

Selection 48:    60 seconds        "Rafael Kubelik conducts the Chicago Symphony.
Selection 60:    60 seconds        Here are Schoenberg's 'Five Pieces for Orchestra,
                                    Opus 16'."

APPENDIX V

     The following pages contain the exact introductions of the 30 popular and 30 classical selections as it was presented on the tape recording used in the final study. Additional descriptive information about each selection is presented in parenthesis.

     For the popular selections, the descriptive information in parenthesis was based on the following sources:

1.  The Index Departments of the two leading music licensing organizations--BMI and ASCAP.

2.  Variety Music Cavalcade, a book written by Julius Mattfeld.

3.  Panorama of American Popular Music, a book written by David Ewen.

4.  Issues of Billboard and Cashbox magazines.

5.  Record popularity charts issued weekly by Radio Stations WMRT and WILS in Lansing, Michigan, as well as WKNX in Saginaw, Michigan.


THE 30 POPULAR SELECTIONS USED IN THE FINAL STUDY

| Selection Number | Description |
|---|---|
| 2 | "This is the piano of Bent Fabric with 'Alley Cat'." (Piano instrumental, 1962 hit parade song.) |
| 4 | "Next, Guy Lombardo and his Royal Canadians with a salute to 'Wonderful, Wonderful, Copenhagen'." (Sweet band group vocal, 1952 copyright.) |
| 6 | "The orchestra of Paul Whiteman with the 'Wang, Wang, Blues'." (Pre hi-fi band instrumental, 1921 copyright.) |
| 8 | "We continue with Stanley Black's Orchestra playing 'Granada'." (Latin-American instrumental 1932 copyright, 1954 hit parade song.) |
| 10 | "This is Miss Ann Richards with the Stan Kenton organization." (Song title was "No Moon At All," jazz scat singing, 1949 copyright.) |

| Selection Number | Description |
|---|---|
| 12 | "Frederick Fennel conducts the Eastman Marching Band. Here is 'The Washington Post March'." (Marching band instrumental, 1899 copyright.) |
| 14 | "These are the Harmonicats of Jerry Murad with 'Cherry Pink and Apple Blossom White'." (Harmonica instrumental, 1955 and 1961 hit parade song.) |
| 16 | "These are the Lettermen to sing 'When I Fall in Love'." (Group vocal, 1952 copyright, 1962 hit parade song.) |
| 18 | "From 'My Fair Lady,' Julie Andrews sings 'I Could Have Danced All Night'." (Original cast broadway showtune vocal, 1956 copyright.) |
| 20 | "Here's Johnny Horton with 'North to Alaska'." (Country-and-western vocal, 1961 hit parade song.) |
| 22 | "Frank Sinatra sings 'Five Minutes More'." (Standard vocal, 1946 copyright.) |
| 24 | "Here's Freddie Cannon heading for 'Palisades Park'." (Rock-and-roll vocal, 1962 hit parade song.) |
| 26 | "Next, the Jackie Gleason Orchestra with 'But Not for Me'." (Soft solo trumpet instrumental with orchestral backing, 1930 copyright.) |
| 28 | "Jimmy Durante sings 'You Gotta Start Off Each Day With A Song'." (Personality vocal novelty, 1936 copyright.) |
| 30 | "These are the Dukes of Dixieland 'Runnin' Wild'." (Dixieland, 1922 copyright.) |
| 32 | "Ken Griffin at the organ. Here's 'Elmer's Tune'." (Organ instrumental, 1941 copyright.) |
| 34 | "Next, music in the Morgan manner. Russ Morgan and the Orchestra with 'So Tired'." (Sweet band with solo vocal, 1949 hit parade.) |
| 36 | "Saul Goodman plays 'Tympania'." (Drum solo, chronological information about the song is unknown.) |
| 38 | "Here are the Hawaiian Islanders with 'Song of the Islands'." (Hawaiian guitar instrumental, 1915 copyright.) |

APPENDIX V--Continued

| Selection Number | Description |
| --- | --- |
| 40 | "We continue with the sound of Dave Brubeck's 'Take Five'." (Jazz instrumental, 1962 hit parade tune.) |
| 42 | "The Buffalo Bills sing 'Happy Days Are Here Again'." (Barbershop quartet, 1929 copyright.) |
| 44 | "Frankie Yankovic and his friends with 'The Pennsylvania Polka'." (Polka with accordian and group vocal, 1942 copyright.) |
| 46 | "These are the Four Lads with 'No Not Much'." (Group vocal, 1956 hit parade song.) |
| 48 | "Mitch Miller and his sing-a-long chorus with 'I'm Looking Over a Four Leaf Clover'." (Sing-a-long chorus, 1948 hit parade song.) |
| 50 | "Tennessee Ernie Ford sings 'The Old Rugged Cross'." (Hymn, 1913 copyright.) |
| 52 | "Warren Covington conducts the Tommy Dorsey Orchestra. It's 'In the Mood'." (Big Band instrumental, 1939 and 1959 hit parade song.) |
| 54 | "The Kingston Trio sings 'Tom Dooley'." (Folk music, 1959 hit parade song.) |
| 56 | "Mantovani and the Orchestra with 'If I Loved You'." (Smooth full orchestra, 1945 copyright.) |
| 58 | "Walter Brennan tells us about 'Old Rivers'." ("Talk" record, 1962 hit parade song.) |
| 60 | "Miss Del Wood at the piano with 'Hello My Baby'." (Honky-tonk piano, 1899 copyright.) |

APPENDIX V--<u>Continued</u>

THE 30 CLASSICAL SELECTIONS USED IN THE FINAL STUDY

| Selection Number | Description |
|---|---|
| 1 | "Here is a selection by the Choir of the Monks at the Abbey of St. Pierre conducted by Don Joseph Gajard." (Gregorian Chant) |
| 3 | "Charles Munch conducts the Boston Symphony Orchestra. Brahms' 'Symphony Number Four in E Minor, the 3rd Movement'." (Romantic Era Orchestra) |
| 5 | "Igor Stravinsky conducting the Columbia Symphony Orchestra on an excerpt from his own work, 'The Rite of Spring'." (Contemporary Orchestra) |
| 7 | "Otto Klemperer conducting the Philharmonia Orchestra and Chorus on a German Requiem by Brahms." (Romantic Era Choral Group) |
| 9 | "With E. Power Biggs at the organ, here is 'Fugue in C Major' by Johann Sebastian Bach." (Baroque Era) |
| 11. | "Antal Dorati conducting the Minneapolis Symphony Orchestra on a tone poem by Richard Strauss, 'Don Juan, Opus 20'." (Neo-Romantic Era Orchestra) |
| 13 | "Next the New York Pro Musica perform Byrd's 'The Sweet and Merry Month of May'." (Renaissance Era Secular Music) |
| 15 | "Leon Fleisher is the featured pianist with the Cleveland Orchestra...Edward Grieg's 'Concerto in A Minor' for piano and orchestra, Opus 16." (Romantic Era Piano Concerto) |
| 17 | "Robert Craft conducts the Columbia Orchestra-- Anton Webern's 'Six Pieces for Orchestra, Opus 6'." (Contemporary Small Ensemble) |
| 19 | "With the Mozart Symphony Number Forty in G Minor, Fritz Reiner conducts the Chicago Symphony Orchestra." (Classical Era Orchestra) |
| 21 | "Sviatoslav Richter plays Beethoven's 'Appassionata'. The Sonata in F Minor, Opus 57." (Romantic Era Small Ensemble) |
| 23 | "Eugene Ormandy conducts the Philadelphia Orchestra. Here is 'La Mer' by Debussy." (Impressionistic Era Orchestra) |
| 25 | "Richard Tucker sings 'La donna è mobile' from Verdi's 'Rigoletto'." (Romantic Era Opera) |

APPENDIX V--<u>Continued</u>

| Selection Number | Description |
|---|---|
| 27 | "We feature violin soloist Isaac Stern with the Philadelphia Orchestra conducted by Eugene Ormandy, playing 'Concerto in E Minor for Violin and Orchestra, Opus 64,' by Felix Mendelssohn." (Romantic Era Violin Concerto) |
| 29 | "Here is music composed by Edgar Varese. The soprano soloist is Donna Praycht. Robert Craft conducts the Columbia Symphony Orchestra." (Contemporary Vocal) |
| 31 | "Theobald Schrems conducts the Regensburg Cathedral Choir on a motet by Giovanni Palestrina." (Gregorian Chant) |
| 33 | "Charles Munch conducts the Boston Symphony Orchestra on 'Schubert's Symphony Number 8 in B Minor'." (Romantic Era Orchestra) |
| 35 | "Howard Mitchell conducts the National Symphony Orchestra on 'Symphony Number 5, Opus 47,' by Dimitri Shostakovich." (Contemporary Orchestra) |
| 37 | "Here is a selection from Verdi's Requiem--Fritz Reiner conducts the Vienna Philharmonic. The Chorus is the Vienna Society of the Friends of Music." (Romantic Era Choral Group) |
| 39 | "Otto Klemperer conducting the Philharmonia Orchestra on Johann Sebastian Bach's 'Orchestral Suite Number One in C Major'." (Baroque Era) |
| 41 | "Lorin Maazel conducts the Berlin Philharmonic Orchestra. We hear 'The Pines of Rome' by Respighi." (Neo-Romantic Era Orchestra) |
| 43 | "Safford Cape conducts the Pro Musica Antiqua of Brussels on Dufay's 'Sequence for WhitSunday'." (Renaissance Era Secular Music) |
| 45 | "Fritz Reiner conducts the Chicago Symphony Orchestra on Rachmaninoff's 'Concerto Number 2 in C Minor, Opus Number 1' Artur Rubinstein, pianist." (Romantic Era Piano Concerto) |
| 47 | "Anton Webern's 'Six Pieces for Orchestra, Opus Six.' Robert Craft conducting the Columbia Symphony." (Contemporary Small Ensemble) |
| 49 | "Eugene Ormandy conducts the Strings of Philadelphia Orchestra playing 'Eine Kleine Nachtmusik' by Mozart." (Classical Era Orchestra) |

APPENDIX V--<u>Continued</u>

| Selection Number | Description |
|---|---|
| 51 | "The Amedeus String Quartet performs Ludwig Van Beethoven's 'String Quartet in E Minor, Opus 59, No. 2'." (Romantic Era Small Ensemble) |
| 53 | "Here's Debussy's 'Afternoon of a Faun'--Eugene Ormandy conducting the Philadelphia Orchestra." (Impressionistic Era Orchestra) |
| 55 | "Elisabeth Schwarzkopf sings music from Wagner's 'Lohengrin'." (Romantic Era Opera) |
| 57 | "Isaac Stern is the violin soloist, accompanied by the Philadelphia Symphony. We hear Tchaikovsky's 'Violin Concerto in D Major'." (Romantic Era Violin Concerto) |
| 59 | "Bethany Beardslee sings music by Arnold Schoenberg titled 'Pierrot Lunaire, Opus 21'." (Contemporary Vocal) |

APPENDIX VI

## THE MUSICIAN IDENTIFICATION TEST

(The correct answers to the musician identification test
are underlined.  The parenthetical information, located
next to the names of the musicians, tells the reader
whether the musician was associated with Classical or
Popular music.)

Below are the names of forty persons.  TWENTY of them are
best known for their association with some kind of MUSIC--
either as composers or performers.  Circle the numbers in
front of the TWENTY NAMES which you think have been or are
connected with MUSIC.

1. Wilbur Schramm

2. Vaughan Williams(classical)

3. Jaye P. Morgan (popular)

4. Sandro Boticelli

5. Frederick Donner

6. Vada Pinson

7. Dietrich Buxtehude (class.)

8. Thelonius Monk (popular)

9. Edith Sitwell

10. Jan Van Eyck

11. Ernesto (Che) Guevara

12. Homer Britten (classical)

13. Sir Arthur Sullivan (pop.)

14. Faron Young (popular)

15. Reinhold Neibuhr

16. Vance Packard

17. Hoagy Carmichael (popular)

18. Hugo Winterhalter (popular)

19. John O'Hara

20. Paul Anka (popular)

21. Christopher Wren

22. Jean Sibelius (classical)

23. Auguste Renoir

24. Bubba Phillips

25. David Schoenbrun

26. Aaron Copland (classical)

27. Gilbert Seldes

28. Claudio Monteverdi (class.)

29. Frederick Lerner (popular)

30. Maurice Ravel (classical)

31. Paul Gaugin

32. Bela Bartok (classical)

33. Robert Schumann (classical)

34. Paddy Cheyevsky

35. James Jones

36. Guy de Mauppassant

37. Paul Hindemith (classical)

38. Sandy Koufax

39. Sigmund Romberg (popular)

40. Acker Bilk (popular)

APPENDIX VI--<u>Continued</u>

THE MUSIC NOTATION TEST

(The correct answers are underlined with asterisks.)

CIRCLE THE NUMBER BY THE CORRECT ANSWER:

1.  Waltz time is:   (1) 4/4   (2) 3/4   (3) 7/4   (4) 2/4   (5) 6/5
    ********

2.  A "flat" in music is (1) ♮   (2) ♯   (3) ✗   (4) ♭   (5) 𝆑
    ********

3.  The bass clef sign is (1) 𝄞   (2) △   (3) ⌒   (4) 𝄢   (5) Z
    ********

4.  Circle the note that is "middle C".

    ********
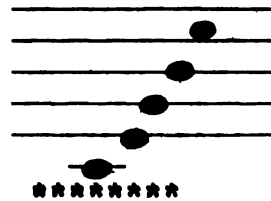
5.  The "half-note" is

    (1) ♩   (2) ♩   (3) ⌒   (4) ○   (5) ○•
    ********

6.  Allegro means

    (1) lively   (2) slow   (3) repeat   (4) accent   (5) sweetly
    **********

7.  A dotted half note is equal to how many quarter notes?

    (1) one   (2) one and a half   (3) two
    (4) two and a half   (5) three
    *********

8.  A "half rest" is

    (1) ♭   (2) ♯   (3) ▬   (4) ▬   (5) ✗
    *******

9.  "∧" is

    (1) clef   (2) measure   (3) staff   (4) phrase   (5) accent
    **********

APPENDIX VII

THE CELL COMPOSITION OF THE INTERVIEWEES AND
THEIR FAMILY MEMBERS UPON WHOM WE HAD INFOR-
MATION AS A RESULT OF THE TELEPHONE SURVEY*

| Age | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | High Music Background | Medium Background | Low Background | Age Totals | High Music Background | Medium Background | Low Background | Age Totals |
| 12-22 | 5 | 9 | 10 | 24 | 6 | 15 | 7 | 28 |
| 23-49 | 8 | 17 | 21 | 46 | 21 | 17 | 9 | 47 |
| 50 or Above | 2 | 4 | 16 | 22 | 19 | 4 | 9 | 32 |
| | 15 | 30 | 47 | 92 | 46 | 36 | 25 | 107 |

The above totals 199 persons. In addition, we had infor-
mation on three other persons living in the Lansing area.
All three were males with low music backgrounds. Two of
these persons were mentally retarded (one was age 12-22
and the other age 23-49); the third was age 50 or over--
and was totally deaf.

*Subsequent information from the questionnaires, used
in the final study, caused some persons to be shifted into
new cells. The above table shows the cell composition
after the necessary adjustments had been made.

APPENDIX VIII

DEFINITION OF THE MUSIC BACKGROUND CATEGORIES

All of the telephone interviewees, and their family members age 12 or over, were placed into one of three music background categories (high, medium, or low) which reflected: (1) the calibre of the previous music experiences; (2) the amount of time they had spent engaging in these musical pursuits; and (3) to some extent, the age of the person involved.

In order to systematically gather information on music background from the telephone interviews, a category system was devised for purposes of coding the responses on the telephone questionnaire. In our judgment, the pre-determined category system appeared to give us a place to put all of the various types of musical experiences in which people might have been involved. The category system proved adequate except in a very few instances. A few persons had engaged in tap dancing and/or ballet lessons. While such experiences might well have merited some consideration as music experiences, they were not classifiable under our pre-determined system and therefore credit was not given for them.

Under our questionnaire category system, judgment as to the calibre of previous music experience was based on: (1) the "how" or "where" of such experiences--the circumstances under which such experiences were obtained,

and (2) the "kind" of music experiences that the individual had pursued.

The circumstances of the music experiences were divided into three types: (1) private lessons--music lessons taken from a private teacher; (2) public experiences-- those experiences obtained by learning or performing in a public place (school, church, nightclub, etc.) for pleasure or for profit; and (3) self taught experiences--those music experiences pursued or learned for personal amusement.

Each of these three types of music experiences were further sub-divided into four types of experiences based on the "kind" of music experiences that the individual had pursued: (1) piano or organ experience; (2) vocal experi- ence--which in the case of "public" experiences included singing in the school chorus or church choir; (3) formal orchestra instrument experience--which involved experience with any of the instruments traditionally found in a symphony orchestra (with the exception of "drums"). It was our judg- ment that, in many instances, "drummers" had not engaged in the same calibre of musical experience as had persons who had played the violin, trumpet, etc.; (4) specialty instru- ment experience--which involved experiences with such instru- ments as the accordian, the harmonica, the guitar, the banjo, the ukelele, the drum, etc.

Taking into consideration the types of previous music experience, we have just discussed, seven "graded levels"

of music experience were established to indicate <u>the</u>
<u>calibre</u> of the individual's music experience.  These
seven "graded levels" were:

"A"     Private lessons--piano or organ,
        Private lessons--formal orchestra instrument.
        Private voice lessons,

"B"     Public experiences--piano or organ,
        Public experiences--formal orchestra instrument,

"C"     Private lessons--specialty instrument,

"D"     Public experiences--vocal or choral,
        Public experiences--specialty instrument,

"E"     Self taught experiences--piano or organ,

"F"     Self taught experiences--vocal.
        Self taught experiences--specialty instrument.

"O"     No musical experience whatsoever,

All of the telephone interviewees, and their family
members age 12 or over, were placed into one of three
music categories (high, medium, or low) based on:  (1) The
calibre of the individual's previous music experiences--the
seven "graded levels" of music experience ("A", "B", "C",
"D", "E", "F", and "O").  (2) The amount of "time" they
had spent engaging in these musical pursuits.  (3) To some
extent, the age of the person involved.

The following definitions were established for
placing persons into the three music background categories:

<u>High Music Background</u>

1.    Anyone having more than one year of "A" experience;

2.    <u>or</u> persons age 23 or older who had more than 10
      years of total experience when the years in all
      of the categories were added together;

3. or persons age 22 or younger who had more than five years of total experience when the years in all of the categories were added together.

Medium Music Background

1. Persons with a minimum of six-months of "A" experience;

2. or persons with a minimum of one year in "B", "C", "D", or "E";

3. and who did not meet the standards of "high" background.

Low Music Background

1. Persons with no music experience;

2. or persons with less than six-months of "A" or less than one year of "B", "C", "D", or "E";

3. or persons whose only music experience was in "F".

For the purposes of coding our telephone questionnaires, the following guidelines were used in determining the total number of years that a person had engaged in a particular musical experience. First, the total number of years that the person had spent in different musical experiences at different ages was written down.

For instance, when a person said he took private violin lessons for two years and at the same time was engaged in playing the violin in the school orchestra, that person was credited with two years of private lessons involving a formal musical instrument. But when another person indicated that he had taken private violin lessons for one year at age 10 and then from ages 11-13 had spent two years playing the violin with the school orchestra, that

person was then credited with three years of experience
(two years of public experience with a formal orchestra
instrument and one year of private experience with a formal
orchestra instrument).

Similarly, when a person sang in the church choir
and school chorus simultaneously for two years, he was
given credit for two years of music experience. On the
other hand, when he sang in the church choir for two years
and in the next two year period he sang in the school
chorus, he was credited with four years of music experience.

In those instances where an interviewee said that
he sang in a chorus "off and on" for a long period of
time (20 years for example)--and the interviewee would not
be more specific, when asked to do so--the number of years
that he mentioned was divided in half for purposes of
crediting him with music experience. Thus, in this example,
he was given credit for 10 years of public vocal experience.

Regarding experience with a "self taught specialty
instrument": when a person indicated that he played the
guitar "by ear" for his own amusement for a specific number
of years, he was given an arbitrary credit of not more than
one year.

When a person said he played a formal musical instru-
ment "by ear" for at least two years, he was credited with
an arbitrary two year maximum.

Except in coding "A" experience, all fractions were
raised to the next highest number in computing the total
number of years of musical experience.

APPENDIX IX

DEFINITION OF THE FIVE AGE-EDUCATION GROUPS

Adult-College

      Completed two or more years of post-high school formal education at a college, university, business school, or nursing school and is age 23 or more.

Student-College

      A college undergraduate and is age 22 or less.

Adult-High School

      A high school graduate who has not completed two or more years of post-high school formal education and is age 23 or older.

Adult-Drop Out

      Has not completed high school and is age 23 or more.

Student-Secondary

      Presently attending secondary or elementary school.

APPENDIX X

FACTOR ANALYSIS OF PERSONS FACTOR LOADINGS

On the next page is a list of the factor loadings for the 49 persons from the telephone survey who took part in our final study.

An additional four persons (friends of the subjects) also took part in the study. Their responses were included in the factor analysis of persons. All four were teenagers or pre-teenagers and their preference ratings were more similar to Type A than to any of the other typologies. However, since these four persons were not part of the telephone survey group, they are not considered to be a part of Type A and all discussion of Type A excludes their participation in the final study. The factor loadings of these four persons were as follows:

| Subject Number | Factor Loadings on the Types | | | |
| --- | --- | --- | --- | --- |
| | "A" | "B" | "C" | "D" |
| 50 | .764* | -.041 | .186 | .028 |
| 51 | .809* | -.106 | -.175 | .062 |
| 52 | .610 | .267 | -.141 | .077 |
| 53 | .605* | -.133 | -.088 | .018 |

*Underlined factor loadings indicate the typology into which the subject was placed. Factor loadings with asterisks indicate that this person's factor loading (and hence his preference pattern) was highly similar to a particular typology. That person's responses were especially significant to the computer as it made its evaluation of the data and determined the standard scores for each selection on a particular typology.

| Subject Number | Factor Loading on the Types | | | |
|---|---|---|---|---|
| | "A" (Hit Parade) | "B" (Classical) | "C" (Semi-Classical) | "D" (Quasi-Hit Parade) |
| 1 | .553 | .551 | .169 | -.084 |
| 2 | .930* | -.027 | .177 | -.085 |
| 3 | .169 | .100 | .557 | .458 |
| 4 | .336 | -.167 | .396 | .652* |
| 5 | .891* | -.073 | .066 | -.209 |
| 6 | .578 | .450 | .034 | -.222 |
| 7 | .900* | -.041 | .155 | -.111 |
| 8 | -.637 | .599 | .005 | -.051 |
| 9 | .833* | .150 | .261 | -.094 |
| 10 | .667 | -.042 | .439 | .138 |
| 11 | .033 | .675* | .295 | .059 |
| 12 | .432 | .142 | .188 | -.089 |
| 13 | .591 | .374 | .357 | -.104 |
| 14 | .770 | .107 | .015 | -.240 |
| 15 | -.206 | .051 | .749* | .007 |
| 16 | .283 | .251 | .526 | .037 |
| 17 | .356 | .656 | .295 | -.128 |
| 18 | .643 | .422 | -.321 | .000 |
| 19 | -.180 | -.113 | .031 | .679* |
| 20 | .279 | .683* | .105 | -.113 |
| 21 | .706 | .255 | .247 | .026 |
| 22 | -.116 | .657 | .099 | .563 |
| 23 | .132 | .493 | .028 | .542 |
| 24 | .116 | .551 | .621 | -.070 |
| 25 | .114 | .579 | .250 | -.322 |
| 26 | .010 | .641 | .265 | .239 |
| 27 | .648 | .301 | .041 | -.294 |
| 28 | .265 | .349 | -.342 | -.366 |
| 29 | -.145 | .818* | .014 | -.185 |
| 30 | .382 | .581 | .281 | .006 |
| 31 | -.478 | .572 | -.080 | .011 |
| 32 | .815* | .197 | .089 | -.196 |
| 33 | .856 | .239 | .084 | .127 |
| 34 | .895* | -.047 | .065 | .006 |
| 35 | .792* | .007 | -.185 | .114 |
| 36 | .712 | .059 | -.176 | .129 |
| 37 | -.129 | .383 | .696 | .074 |
| 38 | .031 | .132 | .725* | .106 |
| 39 | .764* | .121 | .048 | -.094 |
| 40 | -.585 | .530 | .211 | -.276 |
| 41 | -.529 | .516 | .439 | -.054 |
| 42 | .670 | .427 | -.133 | .066 |
| 43 | .094 | .774* | .090 | .074 |
| 44 | .771 | .074 | -.113 | .265 |
| 45 | .137 | .345 | .572 | -.034 |
| 46 | .623 | -.030 | .174 | .370 |
| 47 | .895* | .048 | .064 | .056 |
| 48 | .479 | .223 | .215 | -.368 |
| 49 | .926* | -.069 | -.035 | .046 |

APPENDIX XI

FACTOR ANALYSIS OF THE 60 PIECES OF MUSIC
THE FACTOR LOADINGS FOR THE "POPULAR" SELECTIONS

| Sel. No. | Performer | Categories | | | | |
|---|---|---|---|---|---|---|
| | | Cl. One | Hit-Par. Vocals Two | "Old" Popular Three | "Soph." Popular Four | Nov. Pop. Five |
| 2 | Bent Fabric | -.23 | .25 | .15 | .65 | -.03 |
| 4 | Guy Lombardo | .08 | -.46 | .54 | .19 | -.01 |
| 6 | Paul Whiteman | -.16 | -.19 | .23 | .28 | .74 |
| 8 | Stanley Black | .18 | .21 | -.02 | .78 | -.05 |
| 10 | Ann Richards | .15 | -.03 | -.13 | .54 | .18 |
| 12 | Marching Band | .05 | .02 | .53 | -.10 | .22 |
| 14 | Harmonicats | -.35 | .31 | .40 | .37 | -.05 |
| 16 | Lettermen | -.17 | .71 | .31 | .34 | -.17 |
| 18 | Julie Andrews | .45 | -.41 | .24 | .48 | -.26 |
| 20 | Johnny Horton | -.29 | .72 | .38 | .12 | .11 |
| 22 | Frank Sinatra | -.04 | .06 | .30 | .49 | .32 |
| 24 | Freddie Cannon | -.30 | .69 | .22 | .26 | .30 |
| 26 | Jackie Gleason | -.07 | -.06 | .18 | .69 | .08 |
| 28 | Jimmy Durante | -.13 | .14 | .41 | .16 | .65 |
| 30 | Dukes of Dixie | -.05 | .20 | .07 | .30 | .74 |
| 32 | Ken Griffin | -.18 | .09 | .59 | .04 | .12 |
| 34 | Russ Morgan | .14 | -.02 | .56 | .51 | .27 |
| 36 | Saul Goodman | .22 | .44 | -.18 | .54 | .16 |
| 38 | Hawaiian | .02 | .16 | .70 | .18 | -.01 |
| 40 | Dave Brubeck | .12 | .21 | -.04 | .71 | .23 |
| 42 | Buffalo Bills | -.23 | .28 | .57 | -.02 | .41 |
| 44 | F. Yankovic | .02 | .32 | .73 | .09 | -.10 |
| 46 | Four Lads | -.13 | .24 | .31 | .53 | .19 |
| 48 | Mitch Miller | -.09 | .05 | .76 | .20 | -.05 |
| 50 | Tennessee Ernie | .02 | .25 | .77 | -.14 | -.00 |
| 52 | W. Covington | -.04 | -.03 | .34 | .55 | .03 |
| 54 | Kingston Trio | -.24 | .73 | .20 | .19 | -.06 |
| 56 | Mantovani | .36 | -.11 | .19 | .65 | -.28 |
| 58 | Walter Brennan | -.17 | .72 | .26 | .20 | .17 |
| 60 | Del Wood | -.09 | .02 | .74 | .40 | .20 |

APPENDIX XII

FACTOR ANALYSIS OF PERSONS--STANDARD SCORES OF EACH
SELECTION FOR EACH TYPE--30 POPULAR SELECTIONS

| Selection Number and Performer | | Standard Scores for Types | | | |
|---|---|---|---|---|---|
| | | "A" (Hit) | "B" (Cl) | "C" (S-Cl) | "D" (Q-Hit) |
| 2 | Bent Fabric | 1.36 | -.99 | .62 | .44 |
| 4 | Guy Lombardo | .60 | .19 | .14 | -.83 |
| 6 | Paul Whiteman | .76 | -.98 | .74 | -.61 |
| 8 | Stanley Black | .93 | .36 | 1.47 | 2.05 |
| 10 | Ann Richards | -.10 | -3.63 | -.34 | .99 |
| 12 | Eastman Marching Band | .98 | .94 | .26 | -.83 |
| 14 | Harmonicats | 1.32 | .19 | -.59 | -.57 |
| 16 | Lettermen | 1.30 | .16 | -1.31 | 1.28 |
| 18 | Julie Andrews | .37 | .49 | 1.72 | .37 |
| 20 | Johnny Horton | 1.46 | -.17 | -2.42 | .99 |
| 22 | Frank Sinatra | 1.07 | -.84 | .86 | -.59 |
| 24 | Freddie Cannon | 1.33 | -2.33 | -2.90 | 1.28 |
| 26 | Jackie Gleason | .82 | -.11 | 1.84 | .71 |
| 28 | Jimmy Durante | .92 | .12 | .62 | -.79 |
| 30 | Dukes of Dixieland | .68 | -1.24 | .38 | -.56 |
| 32 | Ken Griffin | 1.15 | .49 | -.11 | -2.39 |
| 34 | Russ Morgan | .65 | .00 | .14 | -.73 |
| 36 | Saul Goodman | .47 | -.57 | .38 | 1.82 |
| 38 | Hawaiian Islanders | 1.12 | .78 | -.72 | -1.67 |
| 40 | Dave Brubeck | .88 | -.91 | .49 | 2.54 |
| 42 | Buffalo Bills | .94 | .26 | .02 | -1.01 |
| 44 | Frankie Yankovic | .79 | .29 | -2.18 | -.57 |
| 46 | Four Lads | 1.02 | .23 | .75 | 1.28 |
| 48 | Mitch Miller | 1.08 | .79 | -.34 | -2.00 |
| 50 | Tennessee Ernie Ford | 1.16 | 1.23 | -1.20 | -1.05 |
| 52 | Warren Covington | 1.08 | .47 | 1.11 | .60 |
| 54 | Kingston Trio | 1.39 | .00 | -.95 | .72 |
| 56 | Mantovani | .44 | 1.23 | 1.48 | 1.21 |
| 58 | Walter Brennan | 1.08 | .14 | -.22 | .00 |
| 60 | Del Wood | 1.05 | .28 | .14 | -1.06 |

## APPENDIX XII--<u>Continued</u>

### FACTOR ANALYSIS OF PERSONS--STANDARD SCORES OF EACH SELECTION FOR EACH TYPE--30 CLASSICAL SELECTIONS

| Sel. No. | Composer and Description | Standard Scores for Types | | | |
|---|---|---|---|---|---|
| | | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| 1 | Choir of Monks, chant | -.36 | -.91 | -.84 | 1.06 |
| 3 | Brahms, "4th Symphony" | -.54 | .21 | .87 | .77 |
| 5 | Stravinsky, "Rite ..." | -.75 | -.66 | .87 | .17 |
| 7 | Brahms, German Requiem | -.88 | .42 | .38 | -.22 |
| 9 | Bach, "Fugue in C Major" | -.75 | .50 | -.11 | -1.00 |
| 11 | Richard Strauss, "Don Juan" | -.45 | .53 | .38 | .05 |
| 13 | Byrd, madrigal | -.70 | .42 | -1.56 | -1.16 |
| 15 | Grieg, piano concerto | -.74 | .69 | .87 | -.56 |
| 17 | Webern, "Six Pieces..." | -1.22 | -1.89 | .01 | .33 |
| 19 | Mozart, "Symphony No. 40" | -.69 | .56 | .38 | -.46 |
| 21 | Beethoven, piano sonata | -.79 | .11 | .38 | .44 |
| 23 | Debussy, "La Mer" | -1.23 | -.64 | 1.35 | .28 |
| 25 | Verdi, "La donna è mobile" | -1.52 | .77 | .86 | -1.16 |
| 27 | Mendelssohn, violin concerto | -.77 | 1.10 | .25 | -.11 |
| 29 | Varese, soprano solo | -1.44 | -.75 | -.84 | -.66 |
| 31 | Palestrina, motet | -.36 | 1.32 | -.84 | 1.11 |
| 33 | Schubert, "Symphony No.8" | -.55 | 1.29 | .38 | .72 |
| 35 | Shostakovich, "5th Symphony" | -.55 | 1.10 | .50 | .82 |
| 37 | Verdi, Requiem | -1.27 | .25 | -1.08 | -.27 |
| 39 | Bach, ochestral suite | -1.15 | .82 | -.59 | .55 |
| 41 | Respighi, "Pines of Rome" | -.85 | .03 | .13 | -.05 |
| 43 | Dufay, "Sequence.." | -.96 | -.45 | -.71 | -.73 |
| 45 | Rachmaninoff, piano concerto | -.85 | 1.27 | 1.96 | 1.22 |
| 47 | Webern "Six Pieces for Orchestra" | -1.22 | -1.02 | -.24 | .84 |
| 49 | Mozart, "Eine Kleine..." | -.77 | 1.37 | .02 | .50 |
| 51 | Beethoven, string quartet | -1.30 | .32 | -.83 | -1.00 |
| 53 | Debussy, "Afternoon of..." | -1.16 | -.58 | .99 | -.12 |
| 55 | Wagner, soprano solo | -1.50 | -1.08 | -.85 | -1.22 |
| 57 | Tchaikovsky, violin concerto | -1.17 | .89 | -.84 | -1.00 |
| 59 | Schoenberg, soprano solo | -1.67 | -2.81 | -1.09 | -.16 |

APPENDIX XII--<u>Continued</u>

FACTOR ANALYSIS OF PERSONS--STANDARD SCORES OF EACH
SELECTION FOR EACH TYPE--30 CLASSICAL SELECTIONS

| Sel. No. | Composer and Description | Standard Scores for Types | | | |
|---|---|---|---|---|---|
| | | "A" (Hit) | "B" (C1) | "C" (S-C1) | "D" (Q-Hit) |
| 1 | Choir of Monks, chant | -.36 | -.91 | -.84 | 1.06 |
| 3 | Brahms, "4th Symphony" | -.54 | .21 | .87 | .77 |
| 5 | Stravinsky, "Rite ..." | -.75 | -.66 | .87 | .17 |
| 7 | Brahms, German Requiem | -.88 | .42 | .38 | -.22 |
| 9 | Bach, "Fugue in C Major" | -.75 | .50 | -.11 | -1.00 |
| 11 | Richard Strauss, "Don Juan" | -.45 | .53 | .38 | .05 |
| 13 | Byrd, madrigal | -.70 | .42 | -1.56 | -1.16 |
| 15 | Grieg, piano concerto | -.74 | .69 | .87 | -.56 |
| 17 | Webern, "Six Pieces..." | -1.22 | -1.89 | .01 | .33 |
| 19 | Mozart, "Symphony No. 40" | -.69 | .56 | .38 | -.46 |
| 21 | Beethoven, piano sonata | -.79 | .11 | .38 | .44 |
| 23 | Debussy, "La Mer" | -1.23 | -.64 | 1.35 | .28 |
| 25 | Verdi, "La donna è mobile" | -1.52 | .77 | .86 | -1.16 |
| 27 | Mendelssohn, violin concerto | -.77 | 1.10 | .25 | -.11 |
| 29 | Varese, soprano solo | -1.44 | -.75 | -.84 | -.66 |
| 31 | Palestrina, motet | -.36 | 1.32 | -.84 | 1.11 |
| 33 | Schubert, "Symphony No.8" | -.55 | 1.29 | .38 | .72 |
| 35 | Shostakovich, "5th Symphony" | -.55 | 1.10 | .50 | .82 |
| 37 | Verdi, Requiem | -1.27 | .25 | -1.08 | -.27 |
| 39 | Bach, ochestral suite | -1.15 | .82 | -.59 | .55 |
| 41 | Respighi, "Pines of Rome" | -.85 | .03 | .13 | -.05 |
| 43 | Dufay, "Sequence.." | -.96 | -.45 | -.71 | -.73 |
| 45 | Rachmaninoff, piano concerto | -.85 | 1.27 | 1.96 | 1.22 |
| 47 | Webern "Six Pieces for Orchestra" | -1.22 | -1.02 | -.24 | .84 |
| 49 | Mozart, "Eine Kleine..." | -.77 | 1.37 | .02 | .50 |
| 51 | Beethoven, string quartet | -1.30 | .32 | -.83 | -1.00 |
| 53 | Debussy, "Afternoon of..." | -1.16 | -.58 | .99 | -.12 |
| 55 | Wagner, soprano solo | -1.50 | -1.08 | -.85 | -1.22 |
| 57 | Tchaikovsky,violin concerto | -1.17 | .89 | -.84 | -1.00 |
| 59 | Schoenberg, soprano solo | -1.67 | -2.81 | -1.09 | -.16 |

APPENDIX XIII

MEANS OF THE FOUR TYPOLOGIES (ON THE 21 POINT PREFERENCES
RATING SCALE) TOWARD EACH OF THE 30 POPULAR SELECTIONS
AND EACH OF THE 30 CLASSICAL SELECTIONS

| | Popular Selections | | |
|---|---|---|---|
| Selection Number | Performer | Type | Mean |
| 2 | Bent Fabric | A | 6.12 |
| | | B | 2.21 |
| | | C | 5.00 |
| | | D | 6.00 |
| 4 | Guy Lombardo | A | 3.76 |
| | | B | 5.50 |
| | | C | 4.14 |
| | | D | .67 |
| 6 | Paul Whiteman | A | 3.44 |
| | | B | 1.00 |
| | | C | 3.71 |
| | | D | -1.00 |
| 8 | Stanley Black | A | 6.04 |
| | | B | 4.14 |
| | | C | 6.71 |
| | | D | 8.33 |
| 10 | Ann Richards | A | -3.20 |
| | | B | -6.00 |
| | | C | .57 |
| | | D | 3.00 |
| 12 | Marching Band | A | 6.28 |
| | | B | 6.21 |
| | | C | 3.71 |
| | | D | 3.33 |
| 14 | Harmonicats | A | 7.32 |
| | | B | 3.07 |
| | | C | 3.29 |
| | | D | .67 |
| 16 | Lettermen | A | 6.20 |
| | | B | 3.29 |
| | | C | .29 |
| | | D | 7.67 |
| 18 | Julie Andrews | A | 2.72 |
| | | B | 6.36 |
| | | C | 7.86 |
| | | D | 5.67 |

APPENDIX XIII--<u>Continued</u>

| Selection Number | Performer | Type | Mean |
|---|---|---|---|
| 20 | Johnny Horton | A | 7.08 |
| | | B | 1.71 |
| | | C | -1.86 |
| | | D | 7.00 |
| 22 | Frank Sinatra | A | 4.32 |
| | | B | 1.07 |
| | | C | 4.57 |
| | | D | 2.00 |
| 24 | Freddie Cannon | A | 6.00 |
| | | B | -2.29 |
| | | C | -4.29 |
| | | D | 7.00 |
| 26 | Jackie Gleason | A | 5.24 |
| | | B | 3.07 |
| | | C | 7.14 |
| | | D | 6.00 |
| 28 | Jimmy Durante | A | 5.00 |
| | | B | 2.64 |
| | | C | 2.29 |
| | | D | 2.00 |
| 30 | Dukes of Dixieland | A | 3.00 |
| | | B | .43 |
| | | C | 3.43 |
| | | D | 1.00 |
| 32 | Ken Griffin | A | 5.28 |
| | | B | 5.00 |
| | | C | 2.29 |
| | | D | .33 |
| 34 | Russ Morgan | A | 3.84 |
| | | B | 3.14 |
| | | C | 3.00 |
| | | D | 3.33 |
| 36 | Saul Goodman | A | 2.68 |
| | | B | 2.71 |
| | | C | 3.57 |
| | | D | 7.33 |
| 38 | Hawaiian Islanders | A | 6.60 |
| | | B | 5.29 |
| | | C | 1.29 |
| | | D | 2.00 |

APPENDIX XIII--<u>Continued</u>

| Selection Number | Performer | Type | Mean |
|---|---|---|---|
| 40 | Dave Brubeck | A | 3.12 |
| | | B | 1.71 |
| | | C | 4.43 |
| | | D | 9.00 |
| 42 | Buffalo Bills | A | 5.44 |
| | | B | 3.43 |
| | | C | .43 |
| | | D | .00 |
| 44 | Frankie Yankovic | A | 5.12 |
| | | B | 4.21 |
| | | C | - .14 |
| | | D | 2.67 |
| 46 | Four Lads | A | 5.40 |
| | | B | 2.93 |
| | | C | 4.86 |
| | | D | 7.00 |
| 48 | Mitch Miller | A | 5.88 |
| | | B | 4.93 |
| | | C | 3.57 |
| | | D | -1.67 |
| 50 | Tennessee Ernie Ford | A | 6.96 |
| | | B | 6.36 |
| | | C | 2.14 |
| | | D | 3.00 |
| 52 | Warren Covington | A | 5.96 |
| | | B | 4.57 |
| | | C | 5.86 |
| | | D | 5.00 |
| 54 | Kingston Trio | A | 6.36 |
| | | B | 3.64 |
| | | C | 1.86 |
| | | D | 6.67 |
| 56 | Mantovani | A | 4.24 |
| | | B | 5.79 |
| | | C | 8.00 |
| | | D | 7.00 |
| 58 | Walter Brennan | A | 5.08 |
| | | B | 1.14 |
| | | C | .00 |
| | | D | 5.33 |
| 60 | Del Wood | A | 5.16 |
| | | B | 4.00 |
| | | C | 2.71 |
| | | D | .00 |

| Classical Selections | | | |
| --- | --- | --- | --- |
| Selection Number | Selection Description | Type | Mean |
| 1 | Monks, choir | A | -1.24 |
| | | B | 2.79 |
| | | C | 1.14 |
| | | D | 5.00 |
| 3 | Brahms, symphony | A | -1.88 |
| | | B | 6.86 |
| | | C | 6.14 |
| | | D | 6.00 |
| 5 | Stravinsky, "Rite..." | A | -3.80 |
| | | B | 2.50 |
| | | C | 4.29 |
| | | D | 5.00 |
| 7 | Brahms, Requiem | A | -2.48 |
| | | B | 4.93 |
| | | C | 3.57 |
| | | D | 1.67 |
| 9 | Bach, organ | A | -2.48 |
| | | B | 4.50 |
| | | C | 1.29 |
| | | D | -1.33 |
| 11 | Strauss, "Don Juan" | A | -1.20 |
| | | B | 5.79 |
| | | C | 3.71 |
| | | D | 4.67 |
| 13 | Byrd, madrigal | A | -3.68 |
| | | B | 3.21 |
| | | C | -2.29 |
| | | D | .67 |
| 15 | Grieg, piano | A | -1.36 |
| | | B | 4.79 |
| | | C | 6.29 |
| | | D | .00 |
| 17 | Webern, orchestra | A | -4.80 |
| | | B | - .43 |
| | | C | -1.43 |
| | | D | 2.67 |
| 19 | Mozart, symphony | A | -1.64 |
| | | B | 6.64 |
| | | C | 5.29 |
| | | D | 4.33 |

## APPENDIX XIII--<u>Continued</u>

| Selection Number | Selection Description | Type | Mean |
|---|---|---|---|
| 21 | Beethoven, piano | A | -2.04 |
| | | B | 6.29 |
| | | C | 3.43 |
| | | D | 6.00 |
| 23 | Debussy, "La Mer" | A | -3.60 |
| | | B | 3.00 |
| | | C | 4.86 |
| | | D | 5.33 |
| 25 | Verdi, opera | A | -4.12 |
| | | B | 5.50 |
| | | C | 4.71 |
| | | D | 3.00 |
| 27 | Mendelssohn, violin | A | -2.28 |
| | | B | 6.71 |
| | | C | 4.00 |
| | | D | 5.00 |
| 29 | Varese, soprano | A | -6.92 |
| | | B | 1.14 |
| | | C | -2.00 |
| | | D | .33 |
| 31 | Palestrina, choir | A | 1.48 |
| | | B | 5.79 |
| | | C | .71 |
| | | D | 6.67 |
| 33 | Schubert, symphony | A | - .16 |
| | | B | 7.64 |
| | | C | 5.29 |
| | | D | 6.67 |
| 35 | Shostakovich, symphony | A | -1.04 |
| | | B | 6.43 |
| | | C | 4.58 |
| | | D | 5.67 |
| 37 | Verdi, Requiem | A | -5.48 |
| | | B | 3.14 |
| | | C | .43 |
| | | D | .67 |
| 39 | Bach, orchestra | A | -3.28 |
| | | B | 6.43 |
| | | C | 2.29 |
| | | D | 5.00 |
| 41 | Respighi, "Pines..." | A | -3.16 |
| | | B | 3.93 |
| | | C | 2.86 |
| | | D | 5.33 |

APPENDIX XIII--<u>Continued</u>

| Selection Number | Selection Description | Type | Mean |
|---|---|---|---|
| 43 | Dufay, "Sequence..." | A | -3.32 |
|  |  | B | 2.50 |
|  |  | C | - .86 |
|  |  | D | 3.33 |
| 45 | Rachmaninoff, piano | A | -1.56 |
|  |  | B | 7.21 |
|  |  | C | 8.14 |
|  |  | D | 7.67 |
| 47 | Webern, orchestra | A | -5.24 |
|  |  | B | 1.36 |
|  |  | C | .00 |
|  |  | D | 6.33 |
| 49 | Mozart, "Eine..." | A | -1.52 |
|  |  | B | 7.57 |
|  |  | C | 4.43 |
|  |  | D | 6.33 |
| 51 | Beethoven, string | A | -3.68 |
|  |  | B | 5.64 |
|  |  | C | .43 |
|  |  | D | 3.33 |
| 53 | Debussy, "...Faun" | A | -4.04 |
|  |  | B | 2.50 |
|  |  | C | 3.29 |
|  |  | D | 4.00 |
| 55 | Wagner, soprano | A | -6.72 |
|  |  | B | 1.36 |
|  |  | C | 1.43 |
|  |  | D | 3.00 |
| 57 | Tchaikovsky, violin | A | -3.20 |
|  |  | B | 6.00 |
|  |  | C | 1.29 |
|  |  | D | 3.00 |
| 59 | Schoenberg, soprano | A | -7.60 |
|  |  | B | -2.14 |
|  |  | C | -3.43 |
|  |  | D | .33 |

APPENDIX XIV

PREFERENCE MEANS ON THE 21 POINT SCALE FOR THE 60
SELECTIONS OF MUSIC BY THE 53 PERSONS TAKING PART
IN THE FINAL STUDY*

| Subject Number | Mean | Subject Number | Mean |
|---|---|---|---|
| 1 | .83 | 28 | 2.05 |
| 2 | - .77 | 29 | 4.35 |
| 3 | 4.70 | 30 | 7.80 |
| 4 | 3.22 | 31 | 6.82 |
| 5 | - .65 | 32 | -1.22 |
| 6 | 1.23 | 33 | 2.00 |
| 7 | - .72 | 34 | 1.00 |
| 8 | 1.83 | 35 | -2.12 |
| 9 | .38 | 36 | -1.63 |
| 10 | 3.20 | 37 | 3.10 |
| 11 | 4.07 | 38 | 1.52 |
| 12 | 4.50 | 39 | -1.55 |
| 13 | 3.15 | 40 | 2.53 |
| 14 | -1.97 | 41 | 2.40 |
| 15 | 2.37 | 42 | .08 |
| 16 | 3.05 | 43 | 4.90 |
| 17 | 1.87 | 44 | .22 |
| 18 | 1.35 | 45 | 3.30 |
| 19 | 2.73 | 46 | 3.28 |
| 20 | 4.23 | 47 | 3.12 |
| 21 | 1.83 | 48 | 4.40 |
| 22 | 7.00 | 49 | .72 |
| 23 | 5.65 | 50 | 1.90 |
| 24 | 1.13 | 51 | -1.62 |
| 25 | .90 | 52 | .03 |
| 26 | .78 | 53 | - .95 |
| 27 | 1.98 | | |

*Subjects 50-53 were not from the telephone survey group.

APPENDIX XV


TYPE A (THE HIT PARADE AND ANTI-CLASSICAL TYPOLOGY)
TYPE A'S 15 LEAST LIKED "POPULAR" SELECTIONS

| Rank No. | Description and Selection Number | Standard Scores |
|---|---|---|
| 30 | Backed by Stan Kenton, Ann Richards sings "No Moon At All" (10) | -.10 |
| 29 | Julie Andrews sings "I Could Have Danced All Night" (18) | .37 |
| 28 | Mantovani's Orchestra plays "If I Loved You" (56) | .44 |
| 27 | Drummer,Saul Goodman plays "Tympania" (36) | .47 |
| 26 | Guy Lombardo's Royal Canadians sing "Wonderful, Wonderful, Copenhagen" (4) | .60 |
| 25 | Russ Morgan sings "So Tired" (34) | .65 |
| 24 | The Dukes of Dixieland play "Runnin' Wild" (30) | .68 |
| 23 | Paul Whiteman's Orchestra plays "The Wang, Wang,Blues" (6) | .76 |
| 22 | Frankie Yankovic's Chorus sings "The Pennsylvania Polka" (44) | .79 |
| 21 | Jackie Gleason's Orchestra plays "But Not For Me" (26) | .82 |
| 20 | Dave Brubeck's Quartet plays "Take Five" (40) | .88 |
| 19 | Jimmy Durante sings "You Gotta Start Off Each Day with a Song" (28) | .92 |
| 18 | Stanley Black's Orchestra plays "Granada" (8) | .93 |
| 17 | The Buffalo Bills sing "Happy Days Are Here Again" (42) | .94 |
| 16 | The Eastman Marching Band plays "The Washington Post March" (12) | .98 |

APPENDIX XVI

THE ADJECTIVES MOST FREQUENTLY USED TO DESCRIBE THE
10 BEST LIKED AND 10 LEAST LIKED SELECTIONS OF EACH
OF THE FOUR TYPOLOGIES*

| Sel. No. | Selection |
|---|---|

### 10 Best Liked Selections of Type A (Hit Parade Typology)

1   Johnny Horton sings "North to Alaska" (20)
    A majority called it--rhythmic and familiar.
    A smaller number called it--singable and gay.

2   The Kingston Trio sings "Tom Dooley" (54)
    A majority called it--familiar and singable.
    A smaller number called it--relaxing and rhythmic.

3   Pianist,Bent Fabric plays "Alley Cat" (2)
    Almost unanimously called--familiar.
    A majority called it--danceable and rhythmic.
    A smaller number called it--gay.

4   Freddie Cannon sings "Palisades Park" (24)
    Almost unanimously called--danceable.
    A majority called it--rhythmic and familiar.
    A smaller group called it--singable, gay, and noisy.

5   The Harmonicats play "Cherry Pink and Apple Blossom
  White" (14)
    Almost unanimously called--rhythmic.
    A majority called it--gay and familiar.

6   The Lettermen sing "When I Fall in Love" (16)
    A majority called it--familiar.
    A smaller group called it--singable, relaxing, senti-
    mental, and danceable.

7   Tennessee Ernie Ford sings "The Old Rugged Cross" (50)
    A majority called it--serious and sentimental.
    A smaller group called it--familiar.

8   Organist,Ken Griffin plays "Elmer's Tune" (32)
    A majority called it--gay and rhythmic.
    A smaller group called it--familiar.

9   The Hawaiian Islanders play "Song of the Islands" (38)
    A majority called it--relaxing, smooth, rhythmic,
    and graceful.
    A smaller group called it--familiar and sentimental.

10  Walter Brennan's recitation of "Old Rivers" (58)
    A smaller group called it--familiar and sentimental.

*See page 280 for definition of terms used.

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|

### 10 Least Liked Selections of Type A (Anti-Classical Typology)

60  Bethany Beardslee sings Schoenberg's "Pierrot Lunaire"(59)
    A majority called it--weird and shrill.
    A smaller group called it--noisy, tiring, and sour.

59  Richard Tucker sings "La donna è mobile" (25)
    A smaller group called it--tiring.

58  Elisabeth Schwarzkopf sings from Wagner's "Lohengrin"(55)
    A majority called it--tiring.
    A smaller group called it--noisy, weird, shrill,
        monotonous, gloomy, and sour.

57  Donna Praycht sings a Varese composition (29)
    A majority called it--tiring, noisy, and weird.
    A smaller group called it--complicated, shrill,
        disorganized, and gloomy.

56  Beethoven's "String Quartet in E Minor" (51)
    A majority called it--tiring.
    A smaller group called it--weird and noisy.

55  A Vienna Chorus sings from Verdi's "Requiem" (37)
    A majority called it--tiring.
    A smaller group called it--complicated, shrill, noisy,
        and  gloomy.

54  The Philadelphia Orchestra plays Debussy's "La Mer" (23)
    A smaller group called it--tiring and weird.

53  Webern's "Six Pieces for Orchestra" (17)
    A majority called it--weird and tiring.
    A smaller group called it--noisy, sour, and shrill.

52  Webern's "Six Pieces for Orchestra" (47)
    A majority called it--weird and tiring.
    A smaller group called it--cold, noisy, gloomy, and
        sour.

51  Isaac Stern plays Tchaikovsky's "Violin Concerto in D
    Major" (57)
    A majority called it--tiring.
    A smaller group called it--complicated, monotonous,
        and sour.

### 10 Best Liked Selections of Type B (Classical Typology)

1  Philadelphia Orchestra plays Mozart's "Eine Kleine
    Nachtmusik" (49)
    Almost unanimously called--familiar.
    A majority called it--stimulating, graceful, relax-
        ing, rich, majestic, and rhythmic.

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|
| 2 | Choir sings a Palestrina motet (31)<br>   Almost unanimously called--serious.<br>   A majority called it--old and majestic.<br>   A smaller group called it--sentimental, relaxing,<br>     rich, and graceful. |
| 3 | Schubert's "Symphony Number Eight in B Minor" (33)<br>   A majority called it--relaxing, smooth, rhythmic,<br>     graceful, familiar, old, and serious.<br>   A smaller group called it--rich, understandable,<br>     majestic, and sentimental. |
| 4 | Rachmaninoff's piano "Concerto Number Two in C Minor"(45)<br>   Almost unanimously called--serious and relaxing.<br>   A majority called it--familiar, majestic, understandable,<br>     graceful, and rhythmic.<br>   A smaller group called it--smooth, rich, old, and<br>     stimulating. |
| 5 | Tennessee Ernie Ford sings "The Old Rugged Cross" (50)<br>   Almost unanimously called--familiar and serious.<br>   A majority called it--understandable and sentimental.<br>   A smaller group called it--rich, majestic, wholesome,<br>     old, and relaxing. |
| 6 | Mantovani's Orchestra plays "If I Loved You" (56)<br>   Almost unanimously called--familiar, smooth, and<br>     graceful.<br>   A majority called it--sentimental and relaxing.<br>   A smaller group called it--understandable, rhythmic,<br>     and rich. |
| 7 | Shostakovich's "Symphony Number Five" (35)<br>   A majority called it--stimulating, majestic, and<br>     familiar.<br>   A smaller group called it--rich, rhythmic, serious,<br>     and gay. |
| 8 | Mendelssohn's "Concerto in E Minor for Violin and<br>  Orchestra" (27)<br>   A majority called it--serious, relaxing, majestic,<br>     familiar, smooth, and graceful.<br>   A smaller group called it--rich, rhythmic, and old. |
| 9 | Eastman Marching Band plays "Washington Post March"(12)<br>   Almost unanimously called--familiar.<br>   A majority called it--rhythmic, stimulating, and<br>     majestic.<br>   A smaller group called it--gay, old, smooth, and<br>     wholesome. |

APPENDIX XVI--Continued

| Sel. No. | Selection |
|---|---|
| 10 | Tchaikovsky's "Violin Concerto in D Major" (57)<br>A majority called it--rhythmic, majestic, familiar, and graceful.<br>A smaller group called it--smooth, gay, serious, relaxing, and rich. |

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**10 Least Liked Selections of Type B (Classical Typology)**

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| 60 | Ann Richards sings "No Moon At All" (10)<br>A majority called it--noisy and shrill.<br>A smaller group called it--weird and tiring. |
|---|---|
| 59 | Bethany Beardslee sings Schoenberg's "Pierrot Lunaire"(59)<br>Almost unanimously called--weird.<br>A smaller group called--disorganized, complicated, shrill, and noisy. |
| 58 | Freddie Cannon sings "Palisades Park" (24)<br>A majority called it--noisy, gay, and cheap.<br>A smaller group called it--danceable and tiring. |
| 57 | Webern's "Six Pieces for Orchestra" (17)<br>A majority called it--weird.<br>A smaller group called it--complicated, tiring, and gloomy. |
| 56 | Dukes of Dixieland play "Runnin' Wild" (30)<br>Almost unanimously called--noisy.<br>A majority called it--familiar, danceable, gay, and rhythmic.<br>A smaller group called it--shrill. |
| 55 | Elisabeth Schwarzkopf sings from Wagner's "Lohengrin"(55)<br>A majority called it--serious.<br>A smaller group called it--tiring, majestic, monotonous, and gloomy. |
| 54 | Webern's "Six Pieces for Orchestra" (47)<br>A majority called it--weird.<br>A smaller group called it--complicated, serious, disorganized, and shrill. |
| 53 | Pianist,Bent Fabric plays "Alley Cat" (2)<br>A majority called it--rhythmic, familiar, and danceable.<br>A smaller group called it--understandable. |
| 52 | Paul Whiteman's Orchestra plays "Wang, Wang, Blues" (6)<br>A majority called it--danceable, rhythmic, familiar, and old.<br>A smaller group called it--noisy. |

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|

51  Dave Brubeck's Quartet plays "Take Five" (40)
    A majority called it--rhythmic.
    A smaller group called it--familiar, danceable, and
        understandable.

10 Best Liked Selections of Type C (Semi-Classical Typology)

 1  Rachmaninoff's piano "Concerto Number Two in C Minor"(45)
    Almost unanimously called--familiar and relaxing.
    A majority called it--smooth, rich, graceful, and
        majestic.
    A smaller group called it--stimulating and under-
        standable.

 2  Jackie Gleason's Orchestra plays "But Not For Me" (26)
    Unanimously called--familiar.
    Almost unanimously called--relaxing.
    A majority called it--smooth, sentimental, singable,
        and danceable.
    A smaller group called it--understandable.

 3  Julie Andrews sings "I Could Have Danced All Night" (18)
    Unanimously called--familiar and singable.
    A majority called it--gay, stimulating, relaxing,
        rhythmic, and graceful.
    A smaller group called it--danceable, smooth, and
        understandable.

 4  Mantovani's Orchestra plays "If I Loved You" (56)
    Unanimously called--familiar and relaxing.
    A majority called it--smooth, graceful, and senti-
        mental.
    A smaller group called it--understandable and
        rhythmic.

 5  Stanley Black's Orchestra plays "Granada" (8)
    Almost unanimously called--familiar and rhythmic.
    A majority called it--gay and stimulating.
    A smaller group called it--singable, danceable, and
        understandable.

 6  Philadelphia Orchestra plays Debussy's "La Mer" (23)
    A majority called it--graceful, smooth, and rich.
    A smaller group called it--familiar.

 7  Tommy Dorsey Band plays "In the Mood" (52)
    Unanimously called--familiar and rhythmic.
    A majority called it--danceable and gay.
    A smaller group called it--relaxing.

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|
| 8 | Orchestra plays Debussy's "Afternoon of a Faun" (53)<br>    Almost unanimously called--smooth.<br>    A majority called it--graceful.<br>    A smaller group called it--old. |
| 9 | Stravinsky's "The Rite of Spring" (5)<br>    A majority called it--serious, weird, and complicated.<br>    A smaller group called it--old, stimulating, and graceful. |
| 10 | Brahms' "Symphony Number Four in E Minor" (3)<br>    Almost unanimously called--rich.<br>    A majority called it--serious, graceful, majestic, old, and stimulating.<br>    A smaller group called it--familiar, relaxing, and wholesome. |

10 Least Liked Selections of Type C (Semi-Classical Typology)

| Sel. No. | Selection |
|---|---|
| 60 | Freddie Cannon sings "Palisades Park" (24)<br>    Almost unanimously called--monotonous.<br>    A majority called it--tiring and noisy.<br>    A smaller group called it--familiar and cheap. |
| 59 | Johnny Horton sings "North to Alaska" (20)<br>    A smaller group called it--familiar, singable, and tiring. |
| 58 | Frankie Yankovic's Chorus sings "Pennsylvania Polka" (44)<br>    Almost unanimously called--singable and danceable.<br>    A majority called it--familiar, gay, and rhythmic.<br>    A smaller group called it--monotonous. |
| 57 | Byrd's madrigal "The Sweet and Merry Month of May"(13)<br>    A smaller group called it--old, complicated, tiring, and rhythmic. |
| 56 | The Lettermen sing "When I Fall in Love" (16)<br>    A majority called it--familiar and singable.<br>    A smaller group called it--sentimental, danceable, and monotonous. |
| 55 | Tennessee Ernie Ford sings "The Old Rugged Cross" (50)<br>    A majority called it--familiar, wholesome, and understandable.<br>    A smaller group called it-singable. |
| 54 | Bethany Beardslee sings Schoenberg's "Pierrot Lunaire" (59)<br>    A majority called it--weird, complicated, and disorganized.<br>    A smaller group called it--noisy and sour. |

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|
| 53 | A Vienna Chorus sings Verdi's "Requiem" (37)<br>　　A majority called it--serious and complicated. |
| 52 | The Kingston Trio sings "Tom Dooley" (54)<br>　　Unanimously called--familiar.<br>　　A smaller group called it--sentimental, singable,<br>　　　understandable, rhythmic, and monotonous. |
| 51. | Elisabeth Schwarzkopf sings from Wagner's "Lohengrin"<br>　　(55)<br>　　A majority called it--serious and majestic.<br>　　A smaller group called it--familiar, rich, and<br>　　　complicated. |

10 Best Liked Selections of Type D (Quasi-Hit Parade Typology)
(Because Type D contained only three persons, while the other
typologies involved more persons, the only ajectives listed for
Type D are those which received unanimous or majority approval)

| | |
|---|---|
| 1 | Dave Brubeck's Quartet plays "Take Five" (40)<br>　　Unanimously called-rich and rhythmic.<br>　　A majority called it--familiar and stimulating. |
| 2 | Stanley Black's Orchestra plays "Granada" (8)<br>　　Unanimously called--rhythmic.<br>　　A majority called it--stimulating and majestic. |
| 3 | Drummer,Saul Goodman plays "Tympania" (36)<br>　　Unanimously called--rhythmic. |
| 4 | The Lettermen sing "When I Fall In Love" (16)<br>　　A majority called it--familiar, sentimental, and smooth. |
| 5 | Freddie Cannon sings "Palisades Park" (24)<br>　　A majority called it--danceable and gay. |
| 6 | The Four Lads sing "No Not Much"(46)<br>　　A majority called it--familiar, sentimental, smooth,<br>　　　and graceful. |
| 7 | Rachmaninoff's piano "Concerto Number Two in C Minor" (45)<br>　　Unanimously called--graceful.<br>　　A majority called it--smooth, rich, and rhythmic. |
| 8 | Mantovani's Orchestra plays "If I Loved You" (56)<br>　　A majority called it--familiar, rich, graceful, and<br>　　　majestic. |
| 9 | Choir sings a Palestrina motet (31)<br>　　Unanimously called--relaxing.<br>　　A majority called it--serious, smooth, rich, and graceful. |
| 10 | Vocal by a Choir of Monks (1)<br>　　A majority called it--familiar, serious, smooth, and<br>　　　majestic. |

APPENDIX XVI--<u>Continued</u>

| Sel. No. | Selection |
|---|---|

10 Least Liked Selections of Type D (Quasi-Hit Parade Typology)

60     Organist,Ken Griffin plays "Elmer's Tune" (32)
       A majority called it--cheap.

59     Mitch Miller's chorus sings "...Four Leaf Clover" (48)
       A majority called it--singable.

58     Hawaiian Islanders play "Song of the Islands" (38)
       A majority called it--tiring.

57     Elisabeth Schwarzkopf sings from Wagner's "Lohengrin"
       (55)
       Unanimously called--serious.
       A majority called it--graceful.

56     Richard Tucker sings "La donna è mobile" (25)
       No majority opinion was reached on any adjective.

55     Byrd's madrigal "The Sweet and Merry Month of May" (13)
       A majority called it--noisy and gay.

54     Pianist,Del Wood plays "Hello My Baby" (60)
       A majority called it--old.

53     Tennessee Ernie Ford sings "The Old Rugged Cross" (50)
       No majority opinion reached on any adjective.

52     The Buffalo Bills (barbershop quartet) sings "Happy
       Days..." (42)
       A majority called it--old and gay.

51     Tchaikovsky's "Violin Concerto in D Major" (57)
       Unanimously called--graceful.
       A majority called it--rhythmic.

*Definition of terms used:

     Beneath each selection are the adjectives which were most frequently used by the persons with preference patterns most similar to the particular typology--10 persons for Type A, 10 persons for Type B, seven persons for Type C, and three persons for Type D. The following definitions were used to describe the number of persons in a particular typology who used a particular adjective to describe a particular selection of music: "almost unanimously" means that all except one person used a particular adjective to describe a particular piece of music, "a majority" means that one person more than half used the adjective, and "a smaller number" means that half of the persons or one person less than half of the persons used the adjective to describe the particular selection.