A GENETIC STUDY OF BRAND LOYALTY

By

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PREFACE

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CHAPTER I

INTRODUCTION AND HISTORY

The complexities of daily life make an analysis of motivation one of the most difficult tasks that confronts anyone interested in human behavior. The interpretation of such an analysis is even more hazardous when one realizes that, for the most part, people pursue their daily lives with little or no idea of what motives prompt their habitual behavior. When asked why they exhibit characteristic behavior patterns, they rarely are able to report their actual reasons but tend to give rationalized or stereotyped responses.

Many motives find their bases in childhood. Anyone can cite individual examples of this from his own experience, probably the most common one being the observation that one's political preferences are usually influenced by the political preferences of one's parents. As children, many of us argued about the relative merits of this or that make of automobile; the family make probably being accepted as the best and the rest being relegated to an inferior rank. Rarely did we pause to analyze the reasons for our preference but we were, nevertheless, firm in our convictions. The question immediately arises as to whether these childhood preferences tend to be stable, and whether there is a carry-over effect into adult behavior. Rules of thumb are common. Lenin's remark, "Give me four years to teach the children, and the seed I have sown will never be uprooted", is a case in point. The implications of this point of view are of prime importance for the propagandist, the advertiser, and the educator.

This study was designed to obtain information regarding the establishment and the constancy of preferences. Since brand-names play a large part in our daily lives and since comparatively little is known about them, they were chosen as materials for study. The determination of the stability of brand preferences in children and the analysis of data relative to the development of these preferences constituted the main problem under investigation.

These problems have received scant attention in the existing literature. Even though brands or trade marks have been used since ancient times (6), researches dealing with them are of rather recent origin. Even experiments concerned with the most widely studied problem, that of confusion of brand names, are not numerous. Since these studies are not particularly pertinent to the present investigation, no attempt will be made to review them in detail. However, two studies illustrating the main techniques employed in studies of brand confusion will be reported.

Paynter (7) presented his subjects with a list of 20 trade names, typed on cards and shown to the subjects at the rate of one per second. A second deck of 40 cards was presented immediately after. The second list contained 10 names that had not been presented in the first list, 10 imitations of names that appeared on the first list, and 20 names that had not been on the first list and were not imitations. The subjects were instructed to pick out those recognized as having been seen before and a confusion score was calculated from the number of errors made. In addition, Paynter typed the original and imitation names side by side on a series of cards and asked the subjects to rank them in the order in which they thought confusion between original and imitation existed. The relation between the two methods of measuring confusion

was positive.

Borden (1) tried to approximate a more typical situation by introducing a specific product, namely, men's hats. The subjects were presented with a brand of hat actually on the market but which, it was claimed, might be confused with a more widely known and highly regarded hat. They were then asked a series of questions about the hat. These questions were constructed so as to insure that the experimenter would know whether the subjects were aware that another hat of approximately the same name was also on the market. Those whose answers indicated that they thought the hat was the product of the better known manufacturer were considered confused and a confusion score was obtained.

These are typical studies of trade name confusion. Published investigations dealing with brand loyalty or brand preferences are not to be found in the literature. A few studies of brand familiarity are considered here since part of the present study is concerned with awareness or familiarity, and since some of the studies took into consideration reasons for familiarity.

A standard form for studies of brand familiarity was established by Geissler (2) in 1917. Using the controlled association technique, in which the subjects are presented with a product name and are asked to record the first brand name that they recall, he found that his 300 subjects named 812 different brands in response to 20 familiar product names. In only 6% of 6000 cases did his subjects fail to respond with a brand name. His results indicated that as the range of responses in terms of number of brands named per product decreased, cases of inability to respond also decreased and the knowledge of one outstanding brand increased. This suggests that the fewer the brands for any one product,

the greater is the opportunity for one brand to attain dominance.

After each subject had responded with the first brand name recalled for each of the 20 products, he was asked to give his reason for recalling that particular brand first. Geissler reported that, of those eligible to give a reason by virtue of naming a brand, 50% referred to use of the product, and 27% to advertising; 21% of the group gave reasons classified as miscellaneous; the remaining 2% gave no reason. An attempt was made to isolate the factors determining the respondent's original use of the product. Theoretical analysis led Geissler to credit advertising with 5 out of 8 chances of determining original use as against 3 chances out of 8 for miscellaneous reasons. When the products were classified as necessities, quasi-necessities, and luxuries, he found that the number of brands named in each category varied and that the reasons given for remembering them first also varied. Fewer brands were reported on the average for luxuries than for necessities and quasi-necessities, and use was a more frequent reason for recall in the case of necessities. Advertising and miscellaneous reasons were named more frequently for luxuries.

The controlled association technique was again used by Hotchkiss and Franken in two well known studies (3)(4) of brand familiarity. The first study was designed to test brand familiarity by having 1012 subjects respond with the _first_ brand name they thought of for 100 products. The second study limited the number of products to 10 but this time 1000 subjects were asked to respond with _all_ the names they could supply for each of the products. This was followed on the succeeding day by a questionnaire which called for information on current use of each product, the length of time the present brand had been used, and names of other brands used.

Sex differences obtained were small. There was no difference in familiarity between brands named for productsclassified as _shopping_ goods, i.e., radios or fountain pens, and those named for products classed as _convenience_ goods, for example, cigarettes or cereal. Frequency of _purchase_ was therefore not considered a factor in familiarity, but a comparison of frequently _used_ and infrequently _used_ goods showed a relationship between use and familiarity.

Hotchkiss and Franken found that leadership in familiarity of well advertised brands was more pronounced for non-users than for users of products. They also found that a comparison of responses on the basis of amount of advertising involved showed that the more heavily advertised brands were named oftener than less well advertised brands. Furthermore, a comparison of the 1921 and the 1925 study in terms of the responses for specific brands showed that those brands which had maintained their advertising had retained their relative familiarity whereas those whose advertising had dropped off had tended to lose their standing in relation to other brands. Their general conclusion was that a high degree of familiarity was associated with extensive advertising.

Waller (8) studied brand familiarity by measuring his subject's reaction time to commodity names. His list of commodities was read three times to the same subjects. In Part I the subject was to respond as quickly as possible with the first association that occurred to him. In PartII, the subject was to respond with the name of a brand associated with the product. In PartIII, the subject was to respond with the brand used. In many cases, the responses to all three parts were the same. He found that on the average his subjects named the first brand that occurred to them (Part II) as quickly as they named the brand used (Part III). His data also showed that, when the responses to Parts II and III were the same, the reaction time

for Part II was shorter as was the reaction time for Part III. In other words, familiarity decreases the reaction time when naming brands. Twenty-seven of the 100 commodities gave results which indicated the presence of a dominant brand and the reaction time for these commodities was shorter than commodities with no dominant brand. This supports conventional studies where frequency of response is taken as indicative of familiarity.

In France, Janssens and Hahn (5) working with French and Flemish school children in grades 1-4, also tested brand familiarity by the controlled association technique. Several pretests were conducted to assure that the method could be used with children. Their essential methodology consisted of presenting the students in school with a blank form sheet. A short explanation of the meaning of a brand name was given, followed by three examples. Then 10 product names were given by the teacher at intervals of one minute and the child was to record all the brands that he could for the product. From the test three types of results were obtained; data referent to age of awareness, data regarding sex differences in awareness, and the relation of scholastic rank and awareness. The results led to the following conclusions:-

1. At the end of the first grade, normal ages 6-7, children knew from 2-3 brands of the 10 products used. Since the investigators had determined from a pretest that kindergarten children had no awareness of brands, they assumed that initial awareness of brands was associated with the first opportunity to read.

2. Boys became aware of trade names at a faster rate than girls with practically no mean difference between their number of responses in the first grade, but with differences of about 3 responses in the second grade, 6 responses in the third grade, and 2 responses in the fourth grade, all in favor of the boys. These figures are all based

on average number of brands given.

3. Since at the end of the fourth grade, normal age 10, most children knew at least one brand name per product, the authors assumed that association between brand name and product name becomes established then.

4. Awareness was found to increase regularly with age, since a comparison of the normal age group for the grades considered showed an increase in the mean number of responses from 3 at age 7 to 14 at age 10.

5. Scholastic rank within any one grade showed no positive correlation with the number of responses given.

With the exception of the studies by Paynter and Borden, the rest of the investigations in this general field have been concerned with the general problem of brand familiarity or awareness as studied by the controlled association technique, and Geissler, and Hotchkiss and Franken both were interested in the reasons for familiarity. These studies differ from the present study, first, in the method used to determine familiarity or awareness; second, in that they were not concerned with brand preference or reasons for preference directly but with reasons for familiarity; and third, except in the case of Janssens and Hahn, in that the subjects were adults.

In the light of the foregoing discussion it is apparent that little actual experimentation has been focused on the problem of brandedness, despite its obvious importance in daily existence. A considerable folklore concerning loyalty to brand names has grown up and has been supported by examples from everyday experience; but experimental evidence about brand loyalty has been found to be non-existent. Likewise, little is known about the reasons expressed for brand preference.

It was this general situation that pointed strongly to the desirability of obtaining direct evidence under controlled conditions. The experimenter was convinced that a study of brand loyalty could only be carried on after an investigation of major factors relating to brand awareness had been carried out. An inquiry of this nature was incorporated as part of the complete study.

Considerable difficulty was encountered in establishing a procedure for the study of loyalty. At first efforts were made to construct a model situation in which the child would have an opportunity to choose between various brands in a setting analogous to that provided by adult buying behavior. Much time was spent trying to evolve such a situation either through the use of a model store or by having the children play a series of games in which the rewards could be made symbolic of the actual brand. However, this procedure had to be abandoned when it became apparent that there was no way to insure that the symbolic object would actually become valuable to the child, and that the products themselves could not be substituted for the symbols.

The procedure finally adopted consisted of the presentation of an awareness test followed immediately by a preference questionnaire upon which the child stated his preference for specific brands. This was followed by a personal interview with an unselected sample of the total group during which the child was asked to state the reasons that prompted him to select one brand rather than another.

CHAPTER II

DESCRIPTION OF THE SAMPLE

Detailed consideration of the subjects and the method used for each major section of the investigation will be found in specific discussions of those sections. To enable the reader more easily to interpret the present section a brief outline of the problem as a whole and the general procedure followed is included here.

(a) The first part of the study was designed to deal with brand awareness or brand familiarity. All subjects were given an awareness test and the results obtained were related to the standard variables of age, economic status, IQ, and number of siblings in the family. (b) Following this, the same subjects were given a preference questionnaire on which they indicated their brand preference for each of the 16 products used as materials. This part of the study was concerned only with the effect of changes in age. (c) The third part of the study dealt with the reasons for the child's preference for each brand. Here a random selection of one third of the original sampling served as subjects. Again the relationships between the variables of age, IQ, and economic status, together with the relationships between the results on the awareness test and reasons for preference were obtained.

The inter-relationships of these major variables bring up some very general problems which make it necessary to examine the sample in general before proceeding to deal with the more specific problems.

It is readily apparent that if each of the variables involved, I.e., age, economic status, IQ, and number of siblings, proved to be distributed

similarly for each classification of the others, successive fractionation would not be necessary. Therefore the variables were tabulated in a contingency table and a Chi Square computed to determine whether any of the differences were significant.

As an example, the distribution of those in each economic group for each age level is shown in Table 1.

TABLE 1.

DISTRIBUTION OF SUBJECTS ACCORDING TO
AGE AND ECONOMIC STATUS

Age	Economic Status					
	A	B	C	D	?	Total
7&8	4	29	26	11	3	73
9	6	31	33	8	5	83
10	3	32	37	9	3	84
11	3	27	28	7	5	70
12	7	22	29	6	6	70
13	5	22	39	10	2	78
14	6	34	41	8	4	93
15	5	38	56	5	1	105
16	5	43	42	2	1	93
17	0	18	19	2	1	40
18	0	10	10	2	1	23
Total	44	306	360	70	32	812

The Chi Square obtained from this table is 43.27 and reference to a table of the sampling distribution of Chi Square indicates that the probability of getting a Chi Square as large for 40 degrees of freedom ((11-1)(5-1)) through random errors of sampling is 35 in 100.

A Chi Square large enough to limit the probability to 1 chance in 100 of an obtained difference being attributable to sampling errors is usually considered highly significant. A Chi Square large enough to limit the probability to 5 chances in 100 of an obtained difference being attributable to errors of sampling is considered significant but not highly so. Since the Chi Square for this table yields no such value, the differences between the groups can be attributed to sampling errors. In the interest of brevity this phrase will be contracted to references to the 1% level or the 5% level of significance. The reader is cautioned to interpret this phrase in the light of this discussion.

Any differences which yield Chi Squares too small to attain the 1% or 5% level of significance will be considered attributable to random errors of sampling and will be referred to as insignificant differences. Distributions of the standard variables referred to before are described in the following pages. The actual data may be found in tables in the Appendix.

The first comparison was made between age and economic status of the subjects. If economic status were found to be distributed uniformly for each age group, a double breakdown for both age and economic status would not be necessary. Actually the Chi Square yielded a very high probability that the differences obtained were the result of sampling errors. (See Table 1 and following). For this reason, the factor of age was not partialed out of the results obtained from a fractionation by economic status as the effect of age had been shown to contribute equally for all economic levels.

The comparison between age and number of siblings was made to determine whether the distribution of siblings was the same at each age level, and again the Chi Square indicated that the differences obtained could be attributed to errors of sampling. Accordingly, age of the subjects was not partialed out when the results were broken down for number of siblings in the family.

The next comparison posed a problem. In this case age was compared with IL and the Chi Square obtained limited to less than 1% the probability that the differences between the distributions according to IQ at each age level were due to sampling errors. If the results were fractionated for IQ without refractionation for age also, any results obtained might be diluted by the age factor. To discover more about

The distributions, the age distribution was dichomotized, assigning all those with ages below 14 in one group and those with ages of 14 or above in another group. The distribution of IQ's for each of these groups was plotted and is shown in Figure 1.


```
-------Ages 14 and above.   M= 107.7   S.D.= 11.4
_____Ages below 14.       M= 108.0   S.D.= 14.7
```
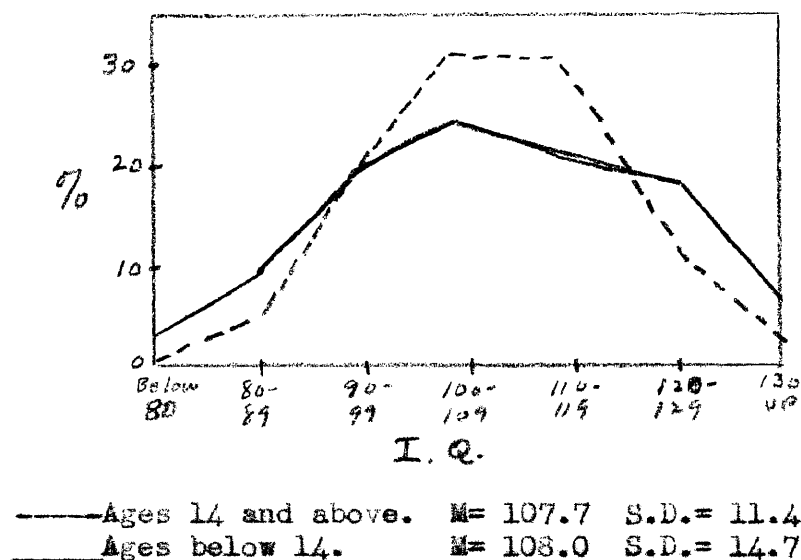
Fig. 1. Distribution of IQ's by age group.

If these distributions had been scattered at different points along the IQ axis, the results would definitely have had to be refractionated for age as well as IQ to assure that results would be related to IQ alone. As this was not the case, a test of significance between the means of the two groups was computed. The difference between the means of the groups was .3 and the critical ratio of the difference .30, indicating that the difference between the groups was not one of central tendency. However, as the difference between the standard deviations was 3.3 and the critical ratio of the difference 4.50*, the difference between these distributions

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*It is conventional to regard a critical ratio of 3.00 as an arbitrary standard below which differences may be attributed to errors in sampling and above which differences are significant.

was one of variability.

Since the means were <u>not</u> significantly different for the two groups and the standard deviations <u>were</u>, the fact was established that the older group did not have higher IQ's in general but were merely more homogeneous. This eliminated any necessity of a refractionation for age when the variable of IQ was being studied since total comparisons would be relatively unaffected.

One other comparison between basic groups was made; that between <u>economic status</u> and <u>IQ</u>. Usually economic status and IQ have been found to be positively correlated and the results of the present study are in agreement. The Chi Square between the distribution by economic group and the distribution by IQ was significant to the 1% level indicating that the distribution of IQ's differs with economic group. The corrected contingency correlation between these variables was found to be .31 ± .066. It must be remembered, therefore, that relationships determined for either of these variables with any other variable may be affected by this inter-relationship.

To summarize; results determined from a fractionation according to economic status of IQ probably are not influenced by the inclusion of the age factor. However, since there is a correlation between IQ and economic status, comparisons made between either of these variables and any other may be affected by their inter-relationship. Since it has been shown that number of siblings in the family is distributed uniformly for each age level, refractionation of the sample distributed according to number of siblings and age is not necessary. More complete discussions of the sample as it applies to particular problems will be found in succeeding chapters.

In view of the complex inter-relationships dealt with in this study, an International Business Machine Card Counting Sorter was used. A code was constructed which was employed in transferring the data obtained to Hollerith Cards. Hand tabulation would have been not only impractical but unreliable. It is estimated that between 900 and 1000 sorts were made during the course of the study.

CHAPTER III

BRAND AWARENESS

INTRODUCTION

As stated in the general introduction to this study, the two main problems for which an answer was sought were first, to determine the extent to which brand preferences are constant once they have been established, and second, to isolate the major factors which influence the development of brand preferences. The design of the experiment was dictated by these two problems. It was recognized that when a child was asked to show a preference he might indicate one without any knowledge of the brand preferred, even though allowed to avoid stating any definite preference. Two distinct groups were thus clearly outlined; first, those stating a preference with knowledge of what kind of an article the brand represented, and second, those stating a preference in the absence of such knowledge. To treat these two groups as identical might well obscure the true facts of loyalty to brand names. The same argument applies with regard to reasons for preference. In view of the obvious need for some criterion of knowledge, an awareness test was constructed.

Although the results cited are subsidiary to the two main problems, this chapter precedes the others because an understanding of the awareness test and of its interpretation is necessary to an understanding of the other data obtained in this study. Actually the data presented have considerable importance in their own right, since only the most meager results from controlled observation are available regarding the develop-

ment of brand awareness.

SUBJECTS

The subjects in this experiment were 813 children drawn from three grade schools and one high school in Prince George's county, Maryland. The schools chosen were spread geographically so that a sampling of economic levels could be obtained, one of the grade schools drawing its pupils primarily from the C and D* economic levels, the other two drawing primarily from the A and B economic levels, and the high school drawing from the total economic range. Since the distribution of economic groups for Prince George's county as a whole tends to be slightly skewed to the higher economic levels, a representative sample should also show this tendency. This proved to be the case in the present sample.

The distribution according to grade in school is shown in Table 2.

TABLE 2.

DISTRIBUTION OF SUBJECTS ACCORDING
TO GRADE IN SCHOOL

Grade	3	4	5	6	7	8	9	10	11	Total
N	87	102	90	78	76	105	89	96	90	813

In the final calculations 8 cases were eliminated from this part of the study because they failed to complete the test and one other was eliminated because information regarding his age was not available.

The distribution employed in determining the age at which children become aware of brand names is shown in Table 3.

*The conventional economic groupings were used. A discussion of their meaning and of the criteria used in classifying the children may be found under procedure.

TABLE 3.

DISTRIBUTION OF SUBJECTS ACCORDING TO AGE

Age	7	8	9	10	11	12	13	14	15	16	17	18	Total
Boys	3	41	44	48	27	28	43	44	60	48	20	11	417
Girls	1	28	39	36	43	41	35	46	44	44	18	12	387
Total	4	69	83	84	70	69	78	90	104	92	38	23	804

In these computations the results were fractionated for sex but since the results obtained from each sex were shown to be so similar, no further results were fractionated on this basis.

The distribution of subjects according to economic status is shown in Table 4.

TABLE 4.

DISTRIBUTION OF SUBJECTS ACCORDING TO ECONOMIC STATUS

Economic status	A	B	C	D	Total
N	43	304	356	70	773

A comparison of the percentage in each group for the present sample with the estimated percentage actually in each group for approximately the same geographical area is shown in the following table.

TABLE 5.

COMPARISON OF SUBJECTS' ECONOMIC STATUS WITH LOCAL
POPULATION ESTIMATE

Economic status	A	B	C	D	Total
Present sample %	6	39	46	9	100
Estimated actual distribution %	10	30	40	20	100

The distribution of subjects according to IQ is shown in Table 6. The IQ equivalents were obtained from the Pintner-Cunningham Primary Men-

tal Test and the Detroit Primary Intelligence Test in the grade schools, and the Otis Group Intelligence Scale and the Henmon-Nelson Test of Mental Ability in the high school. In many instances the child had taken more than one test and had more than one IQ score. Whenever this occurred, an average of the scores was taken and used to classify the student.

TABLE 6.

DISTRIBUTION OF SUBJECTS ACCORDING TO IQ.

IQ	Below 80	80-89	90-99	100-109	110-119	120-129	130 up	Total
N	9	38	124	176	161	93	31	632

This table shows that the distribution of IQ's is nearly normal with a slight tendency to be skewed toward the low scores.

The subjects were asked to indicate on their test sheets the number of brothers and sisters they had and the resulting distribution is shown in Table 7.

TABLE 7.

DISTRIBUTION OF SUBJECTS ACCORDING TO NUMBER OF SIBLINGS

Number of siblings	0	1	2	3	Over 3	Total
N	109	227	192	121	155	804

This curve shows that more children had one brother or sister than any other number of siblings and the curve tapers off in both directions.

MATERIAL

An awareness test consisting of a series of 70 brand names of commercial products and 10 other names, a total of 80 names, was used to collect the data pertaining to familiarity with brands. Five of the 10 extra names were names of Washington department stores and the other 5

were the names of _political parties_. For the purposes of this study all
of the names can be considered brand names and will be referred to as
such throughout the study. The 80 names were capable of being grouped
into 16 product categories, 5 names for each category. For example,
there were 5 brands of _coffee_, 5 of _gasoline_, etc. The complete test and
the product groupings may be found in the Appendix.

The products and their representative brands were selected on the
following bases. In the case of products, an attempt was made to select
a wide variety so that any differences that might occur would be clearly
defined. The brands chosen were selected on the basis of what might be
called popularity, i.e., they were well known and might be regarded as
representative of the product in question. In some cases almost all
known brands for a product were used; in others, the selection was made
from a large list of possibilities.

The awareness test was constructed in the following manner. The 80
brands were placed in chance order and a multiple response test was de-
signed with 5 possible responses and a "Don't Know" category for each
brand name. The position of the correct answer in the 5 possibilities
was randomized for all brand names, as was the position of all other
possible responses. In this way, the position of any one brand name,
the position of its correct answer, and the position of the alternate
responses were all selected by chance arrangement.

Space was allotted on the last page for the child to insert his name,
age, grade, sex, number of siblings, and home address. The directions for
taking the test together with four sample problems preceded the test
proper.

The test was pretested several times to minimize errors in construc-

tion and to suggest appropriate revisions. The pretests were administered once individually and orally to 5 subjects whose ages were from 7-9; once to 4 subjects, age 7-9 who took the test individually and without aid from the experimenter; next as a group test to 30 subjects inaa classroom; and finally as a group test to 38 subjects in the classroom. The first classroom test was conducted in grades 2 and 3 (normal ages 7 and 8), and the second group test in grades 3 and 4 (normal ages 8 and 9). In each case appropriate revisions were made in the light of the difficulties which were discovered.

In view of the somewhat unusual nature of the test a consideration of total score for the test would be without meaning for the rest of the study. This made a computation of the reliability rather difficult. However, it was finally decided to compare actual percent agreement for test-retest. Sixty-seven students in a private school near Baltimore were given the test and three days later were retested. The mean percent of agreement was found to be 83.6 ± 1.08. This may be regarded as a most rigorous criterion since no account was taken of the correctness or incorrectness of the response, but only absolute agreement between the two responses was scored as agreement. The percentage obtained is thus indicative of high reliability. Moreover, Pearson Product Moment coefficients of Correlation were determined for total score right, total score wrong, and total number of "Don't Knows". The test-retest reliability for the rights was .90, for the wrongs, .83, and for the "Don't Knows", .92. This is generally considered to be high reliability for a test of this kind.

PROCEDURE

The tests were administered to the subjects by the experimenter

and by two trained assistants. All tests were given to groups in the school classroom during the first school hour in the morning. In the case of the 3rd, 4th, and 5th grades, the experimenter invited the children to play a game and asked them if they would like to do so. The answer was always in the affirmative. Caution was taken to allot short rest pauses at the end of each page in order to minimize boredom. These children took the test as a game and apparently enjoyed it. When asked if they were tired, they would shout "no". Spontaneous comments such as "that's a hard one" or vice versa were indicative of continued interest in the test. The older students, those in grades 6-11, were told that the study was part of a large program of research and that they had been selected as subjects. They were very cooperative and took the test under standard conditions. All subjects were admonished to do their best and not to tell students in other classes what had occurred so that other students would not have an unfair advantage. The tests were conducted in grades 3 to 11 (the last year in high school) in ascending order.

Another dichotomy was made in the method of administering the tests. Since the younger children were likely to have reading difficulties, and since reading ability was not one of the primary considerations, the complete test was read to them while they followed on the test sheet. After the standard instructions and examples had been presented and any questions about procedure answered, the first brand name was read, followed by the alternate responses. Ample time was allowed for the children to answer and then brand number 2 was read followed by its alternate responses and time allowed for the correct answer to be designated. This was designed to hold effects of differences in reading ability at a minimum. From grade 6 on, only the instructions and examples were read and the

children allowed to proceed by themselves. They were told that any questions regarding pronunciation would be answered and they were not slow to take advantage of this offer. All subjects were instructed not to guess unless they felt fairly certain of the answer but to indicate "Don't Know" if they really did not know.

Data on IQ and father's occupation were obtained for most of the subjects from school records. The method of tabulating IQ has already been discussed. The method of obtaining economic status was twofold, 121 mothers, representing 271 children, were personally interviewed to gather additional data; in these cases, the interviewer estimated economic status according to the criteria developed by the Psychological Corporation, a description of which may be found in the Appendix. For the remaining cases, the father's occupation in combination with the home address enabled the experimenter to make a rough estimate of economic status. No distinction was made between the economic levels estimated each way, and the grouping was made in the conventional four steps from A to D.

RESULTS

It was necessary to establish a criterion of what has been referred to as brand awareness. The important consideration is not the actual brands involved but whether the brands for one product are known before those for another product and whether this awareness increases or decreases with age. The following criterion of awareness was accordingly established.

> The probability of a subject's getting one of the brands for a product right by guessing would be one in five (1/5), the probability of getting two right by guessing for that product would be one in twenty-five (1/5 x 1/5). Although the

chances of getting three right by guessing are less than
1 in 100, (the usual criterion of significance) it was
desired to establish a more rigorous standard to assure
that the satisfaction of the criterion of awareness would
not be a result of guessing. If a subject got 4 out of 5
or 5 out of 5 brands correctly matched with a product, it
was assumed that he was aware of brands for that product.
In the interest of brevity, both in textual material and
in graphs and tables, all references will be made to "pass-
ing or failing the criterion of awareness", i.e. satisfy-
ing or not satisfying the established criterion. For the
same reason some of the product names will be abbreviated
as follows: store (department store), auto (automobile),
gas (gasoline), and politics (political parties). The re-
maining products are usually referred to by complete names
and wherever they are abbreviated the full name will be
apparent.

Relationship between age and the criterion of awareness.

The results of this comparison are expressed in terms of the percent-

age of each age group passing the criterion of awareness and are

shown in Figure 2. The results are presented for each sex separately

and are not combined since Chi Squares computed for each product in-

dicated that the differences could be attributed to sampling errors.

Combining the results for both sexes would merely tend to smooth out

the curves.

Chi Squares were determined for each product by comparing the

distribution of passers with the distribution of failers for the total

age range as illustrated in Table 3.

TABLE 3.

DISTRIBUTIONS OF PASSERS AND FAILERS OF THE
CRITERION OF AWARENESS FOR COFFEE BY AGE (BOYS)

Age	7&8	9	10	11	12	13	14	15	16	17	18	Total
Pass	8	12	24	15	17	24	33	50	43	17	10	253
Fail	36	32	24	12	11	19	11	10	5	3	1	164
Total	44	44	48	27	28	43	44	60	48	20	11	417
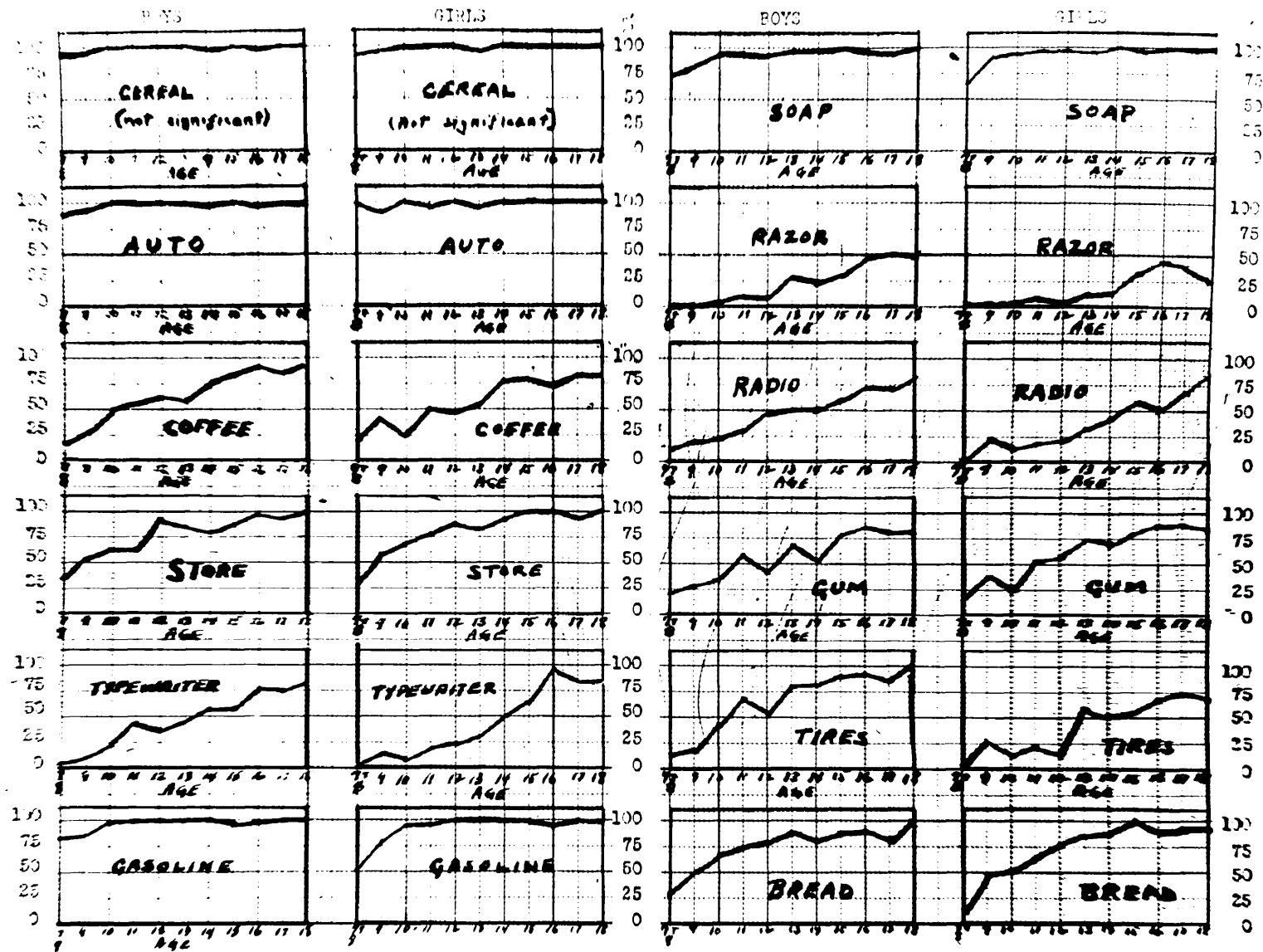
Figure 1. Relationship between age and percent passing the criterion of awareness
(All differences significant to 1% except those for cereal)
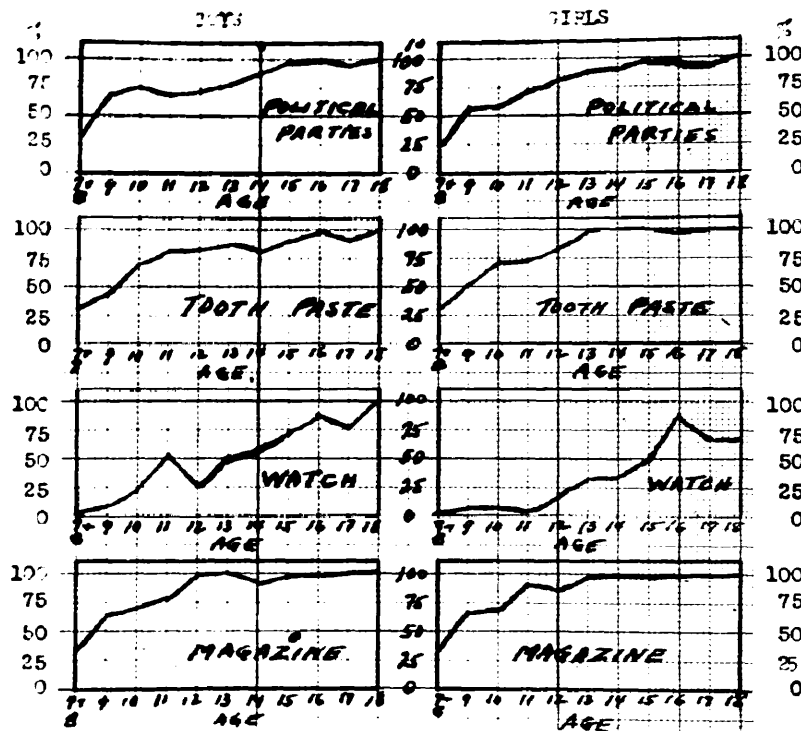
Figure 2 (Cont'). Relationship between age and percent passing the criterion
of awareness
(All differences significant to 1%)

The cases in age categories 7 and 8 were combined throughout since the number of cases in the former class were small. The Chi Square for this table indicated that a significant difference existed between passers and failers according to age. A significant difference (1%) was found for all products except cereal when the criterion of awareness was compared with age. This means that, as children grow older, a greater percentage of them become aware of brands for all products except cereal. Brand names for this product were apparently so well known throughout the entire age range that the differences are much too small to yield a significant Chi Square.

The general trend of all the curves is for a greater percentage of children to pass the criterion of awareness with increasing age. This means that in general, children become more familiar with brand names as they grow older. Although there are small variations, the shapes of all the curves show this trend.

We have already noted that the differences between boys' and girls' curves do not yield significant differences. Another comparison between these curves may be made by comparing the starting and ending point of the curves according to a four category breakdown, i.e., 0-25, 26-50, 51-75, and 76-100 percent passing the criterion of awareness. For example, reference to Figure 2 shows that for store both boys' and girls' curves begin in the lowest quarter of the percentage distribution, and end in the highest quarter of the percentage distribution. Comparisons of this nature show that the initial and final status of the curves for boys and girls are in the same quarter of the distribution of percents in 12 or the 16 comparisons. These comparisons represent the following products: coffee, typewriter, razor, radio, gum, store, politics, tooth paste, maga-

zine, soap, cereal, and automobile. The curves representative of tires
and watches show that for both boys and girls, initial status is the
same, but the final status of the girls' curve is one quarter lower in
the distribution than the curve of the boys. In other words, while at
first boys and girls rate on a par, at the high end of the age distribu-
tion, more boys are aware of brand names for these products than are
girls. The curves representing the last two products, bread and gaso-
line, show that there is a smaller percentage of girls than boys aware
of brands for these products at the initial age but, at the final age
tested, the percentages for the two sexes are about equal. These com-
parisons yield further evidence of the comparability of boys and girls
in respect to brand awareness.

The inter-product comparisons yield some interesting results. It
is obvious that a greater percentage of children is aware of the brands
for some than for other products. It is also clear that some products
reach a maximum, i.e., 100% of the respondents satisfying the criterion
of awareness, whereas other products never reach a maximum. Here again
comparisons may be made between the points of origin and termination of
the curves, even though it is possible that some curves have the same
initial and final points but reach a maximum at different age levels. At
any rate, initial-final comparisons will give some idea of the products
which tend to have their brands learned at some specific period in the
life of the child. Whenever the initial and final status of the curves
differs for the sexes, the average is taken as representative. These re-
sults are presented in Table 9.

TABLE 9.

TABULATION OF PRODUCTS ACCORDING TO INITIAL AND
FINAL AWARENESS STATUS

Products starting 0-25%, ending 26-50%	Products starting 0-25%, ending 76-100%	Products starting 26-50%, ending 76-100%
Razor	Radio	Tooth paste
	Typewriter	Store
	Watch	Magazine
	Tires	Politics
	Gum	
	Coffee	
	Bread	

Products starting 51-75%, ending 76-100%		Products starting 76-100%, ending 76-100%
Soap		Automobile
Gasoline		Cereal

It will be seen that brand names for __razors__ are not well known at the early age levels and that, within the age range of the study, are never known by more than 50% of the children at any one age level. The next group of names, including those for __coffee__ and __typewriter__, are known by few children at the early ages, but are ultimately known by most of the children. The other three groups develop similarly but start with different percentages of children knowing the brands at the early age levels. It is reasonable to assume that the initial points of the curves for __automobile__ and __cereal__ would have been lower had younger children been tested.

Another analysis that can be made with profit is one which compares the products according to the age level at which 76% or more of the subjects passed the criterion of awareness (76% is a convenient, if arbitrary, critical level). This was done and the results are shown in Table 10. Cases of disagreement between the results obtained from the two sexes were averaged for this table. A comparison of this table and the previous table shows that the same rank order of products is maintained and furnishes some measure of the consistency of the results. This may be inter-

preted as a rough index of the ages at which brand awareness for each of the products concerned arises and of the order of development of brand awareness for the products.

TABLE 10.

TABULATION OF PRODUCTS ACCORDING TO THE AGE AT WHICH 76% OR MORE SATISFIED THE CRITERION OF AWARENESS

Age at which 76% or more pass criterion	Product
7 & 8	Cereal
	Automobile
$8\frac{1}{2}$	Gasoline
9	Soap
11	Politics
	Magazines
$11\frac{1}{2}$	Store
	Tooth Paste
	Bread
14	Coffee
15	Gum
$15\frac{1}{2}$	Tires
16	Watch
	Typewriter
18	Radio
Never	Razor

The relationship between economic status and the criterion of awareness. It was thought that economic status and awareness of brand names might be related to each other. The sample accordingly was fractionated by economic status and percent of each group passing the criterion of awareness. The results of this fractionation are shown in Figure 3. The Chi Square Test was again applied. A significant Chi Square would indicate that any differences between the distribution of failers and passers could not be attributed to errors of sampling. In the Figure, a star beside the product name indicates a significant difference between passers and failers for all economic statuses, whereas

Relationship between emotional status and percent given as criterion of awareness
significant to 1% significant at 5% level

a star beneath the economic group indicates that the ratio of differences between the passers and failers in that group alone is different from the ratio in the other groups.

It will be observed that the general distributions of passers falls with decreased economic status, i.e., a smaller percentage of children in the lower economic groups passed the criterion of awareness. No explanation is apparent for the few cases which are atypical, e.g., coffee. The reader will notice that, since 10 of the 16 comparisons show a significant difference for the D economic group alone, most of the variance in the total distribution is located in that group. This indicates that, since Chi Squares for the upper three groups are generally not significant but are significant for the lowest group, a minimum economic status may be necessary, above which there is very little difference in the ratio of passers to failers, but below which there is more of a probability of failing the criterion. With respect to these data, those in the D economic group are not as familiar with brand names as are those in the other three economic groups.

Table 11 lists the products according to the level of significance of the differences between passers and failers of the criterion of awareness according to the total range of economic groups.

Eight of the nine comparisons yielding a 1% significant difference for the total distribution show a 1% difference in the D economic group alone, and the other shows a 5% difference. One of the two products showing a total distribution difference significant to 5% shows a 5% difference between passers and failers in the D economic group alone. This seems to mean that the ratio of passers to failers in the three upper economic groups is about the same and being a member of these economic groups

TABLE 11.

SIGNIFICANCE LEVEL OF THE DIFFERENCES BETWEEN THE NUMBER
OF RESPONDENTS IN EACH ECONOMIC GROUP AWARE OF BRANDS OF
EACH PRODUCT

Significant to 1%	Significant to 5%	Not significant
Typewriter	Bread	Cereal
Watch	Gasoline	Soap
Magazine		Automobile
Coffee		Radio
Tires		Razor
Gum		
Politics		
Tooth Paste		
Store		

makes little difference in awareness.

Since, however, there are significant differences between the ratio of passers to failers for these three groups as compared to the lowest group, being a member of the lowest economic group makes one more likely to fail than to pass the criterion of awareness. Some other significant differences within a single economic group appear but do not seem to follow any general pattern.

The general conclusion for these comparisons is that economic status and brand familiarity are positively correlated. Eleven of the 16 comparisons yielded significant differences to the 1% or 5% level when the total economic distribution was considered, and in 10 of these 11 cases, the difference between passers and failers of the criterion of awareness in the D economic group alone was significant, indicating that this is a minimum critical group in which there is a high percentage of children unfamiliar with brands as compared with the other groups.

The relationship between IQ and the criterion of awareness. The question as to the relationship of IQ and the criterion of awareness is also of interest and the results of this comparison are presented in

Figure 4. The Chi Square Test of significance was applied to determine whether the differences between passers and failers for the total range could be attributed to sampling errors. The differences for all products except soap and razor were significant to the 1% level. Stars beneath the IQ categories indicate the significance level between passers and failers for single IQ categories. It will be noted that, as with economic status, the lower IQ groups contribute heavily to the total variance, whereas the upper groups do not. The ratio of passers to failers in the upper groups is about the same, but the ratio of passers to failers for the upper groups as opposed to the same ratio for the lower groups is significantly different. This again suggests that a minimum score exists, above which their is little or no relationship between awareness and IQ but below which a relationship exists, to wit, a disproportionate number of members of the lower IQ groups fail to satisfy the criterion of awareness.

In spite of the apparent lack of relationship between IQ and the criterion of awareness in the upper IQ groups, it is interesting to note that 10 of the 16 curves reach a maximum and then decline. The fact that a high percentage of these curves follows this pattern lends credence to the hypothesis that a maximum as well as a minimum score may be a possibility but proof of this theory must await further experimentation.

In general then, it seems that IQ and awareness are not related for the average or above average IQ range, but that a minimum score is present, below which a person is much more likely to be unfamiliar than familiar with brands.

Relationship of number of siblings in the family and the criterion of awareness. It was suggested that children with many brothers and sisters
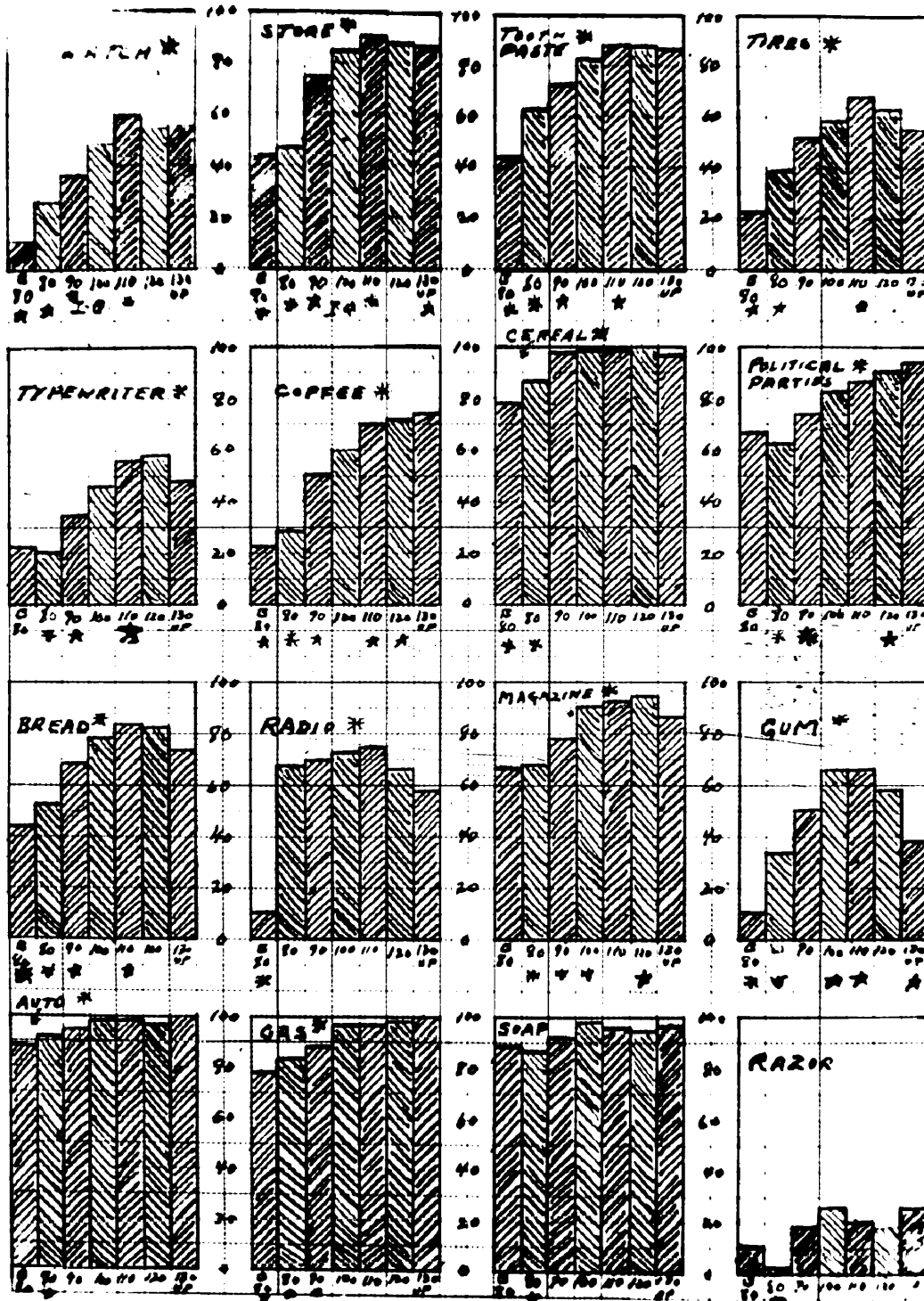
WATCH ★   STORE ✳   TOOTH PASTE ✳   TIRES ★

TYPEWRITER ★   COFFEE ✳   CEREAL ✳   POLITICAL PARTIES ✳

BREAD ★   RADIO ✳   MAGAZINE ✳   GUM ✳

AUTO ★   GAS ✳   SOAP   RAZOR

would be more familiar with brand names because of greater opportunity to discuss favorite brands among themselves. Since only one difference was found to be significant, however, further computations were disregarded and we may say that the number of siblings in the family bears no relationship to the frequency of passing the criterion of awareness.

CONCLUSIONS

On the basis of the results presented and in the light of the conditions of the experiment, the following conclusions may be drawn.

1. For the particular brands and products studied, awareness of brand names as defined increases with increasing age.

2. Differences in awareness of brand names between boys and girls are very small; in most cases the initial and final status with regard to awareness is the same.

3. Awareness of the brands for different products begins and ends at different age levels. Brands for some products are known at very early ages, while brands for other products are not known until a later age.

4. Awareness of most brands decreases with decreasing economic status, the differences being especially significant for the lower economic groups.

5. Within limits, the percent of children aware of most brands increases with increasing IQ. There is a suggestion, however, that a maximum IQ may be established for each product, above which there is a decline in the percentage of children satisfying the criterion of awareness.

6. The number of siblings in the family bears no relationship to brand awareness.

CHAPTER IV

BRAND LOYALTY

INTRODUCTION

Now that the necessary information and background for the present problem have been described in the previous chapter, we may turn to the main problem under consideration, i.e., the temporal stability of brand preferences. Three hypotheses suggest themselves, 1) the first preferences tend to remain relatively stable over the years; 2) that there is a period of change and flux finally stabilizing upon one particular preference; and 3) that there is no tendency for preference to remain constant and therefore that early preferences are unrelated to later preferences. This study was designed to test these hypotheses in relation to the specific brand names of specific products.

SUBJECTS

The subjects used in this part of the experiment were the same subjects that had been used in the study of brand awareness. The only changes that were made were those indicated by the awareness test and described below. As stated before, two distinct groups were defined by a comparison of responses given on the awareness test and those given on the preference questionnaire; first, those whose preference agreed with knowledge of the brand preferred, and second, those whose preference did not agree with knowledge of the brand preferred. If these groups were to be treated as one, the issue of loyalty as defined on page 38 might be obscured. Therefore, in the calculations for brand loyalty, the latter group was eliminated. In most cases this group was very small and no calculations were made for them.

The only fractionation in this section of the study was for age and, since there were too few subjects aged 7, these were also eliminated from the calculations.

MATERIAL

The same 80 brand names that were used in the study of awareness were used as subject matter in this part of the experiment. This permitted those whose preference agreed with knowledge to be separated from those whose preference did not agree with knowledge. The 80 brands were recombined into a preference questionnaire which may be found in the Appendix. In the preference questionnaire the brand names for each product were exhibited with instructions reading: "Here are 5 kinds of ...... Put a cross through the kind you like best."

The order in which the products appeared in the questionnaire was chosen by chance as was the order in which each of the brand names appeared. In every case there was an opportunity for the subject to indicate no preference.

Ordinary methods of obtaining reliability were not applicable for this questionnaire since answers could not be considered right or wrong. However, a measure of agreement could be obtained. Fifty-eight students at the previously mentioned private school were given the questionnaire and three days later were asked to answer the same questionnaire again. The percent of agreement between the two sets of results and the average for the total group were computed. The mean percent agreement proved to be 92.4% which indicates a strong tendency to give the same responses each time tested, and is to be considered as representing a high degree of reliability.

PROCEDURE

The preference questionnaire was pretested in the same manner and with the same subjects as the awareness test and appropriate revisions were made in the light of this experimental trial.

In the test proper, the presentation of the questionnaire followed immediately after the completion of the awareness test which was given during the first school period in the morning. The children were told that the questionnaire would allow them to show what they liked best and also would make known to them the correct answers to the awareness test just completed.

The directions and a sample problem were read orally and questions were answered. The general procedure of the awareness test was followed as far as the remainder of the test was concerned. The complete questionnaire was read aloud to all subjects through grade 5. Above this grade, only the example and instructions were read unless questions were asked by the subjects. Since the children had already been through the complete list of names, they experienced little difficulty in completing the questionnaire.

The main difficulty encountered was in keeping the younger children's enthusiasm from influencing the results, since they all seemed anxious to let each other know their preferences and to discuss the matter at length. However, the experimenter kept them as quiet as possible by repeated cautions and telling them that they could discuss the quiz later.

Only one preference per product was allowed and opportunity was available to mark no preference. The method of tabulation allowed the experimenter to determine whether the subject's preference agreed with correct association of brand and product on the awareness test. Only two categories of responses were considered, i.e., preferences that agreed and

preferences that disagreed with correct association of brand and product on the awareness test. In the first instance we can speak of preferences agreeing with knowledge, and in the second instance preferences disagreeing with knowledge. Children stating <u>no preference</u> on the questionnaire could not be considered as disagreeing with knowledge no matter what their response was on the awareness test. Therefore, responses indicating <u>no preference</u> were classified as agreement with knowledge.

RESULTS

Genetic studies conventionally employ a cross sectional analysis; in fact, genetic studies using the individual follow-up method are the exception rather than the rule. The assumption commonly accepted in research in the social sciences is that adequately sampled age levels are representative of the genetic continuity. The present study proceeds on this assumption, and thus brand loyalty will be posited whenever no significant change in the percent of children preferring a brand from age to age is apparent.

Three methods of dealing with loyalty are suggested. The first is to consider whether there is a significant difference according to age between the distributions of responses for all brands of a product category; the second, to study change with age for any <u>one</u> brand name; and the third, to compare beginning status with final status of a brand according to the percent preferring it. Each of these comparisons will be made.

In Figure 5, some product names are starred and others are not. Starred names designate the products which showed a significant difference in the total distribution of brands for that product category when distributed according to age. For example, <u>typewriter</u> is starred, indi-

COFFEE TYPEWRITER STORE

BRAND 1 BRAND 1 BRAND 1

BRAND 2 BRAND 2 BRAND 2

BRAND 3 BRAND 3 BRAND 3

BRAND 4 BRAND 4 BRAND 4

BRAND 5 BRAND 5 BRAND 5

NO PREFERENCE NO PREFERENCE NO PREFERENCE
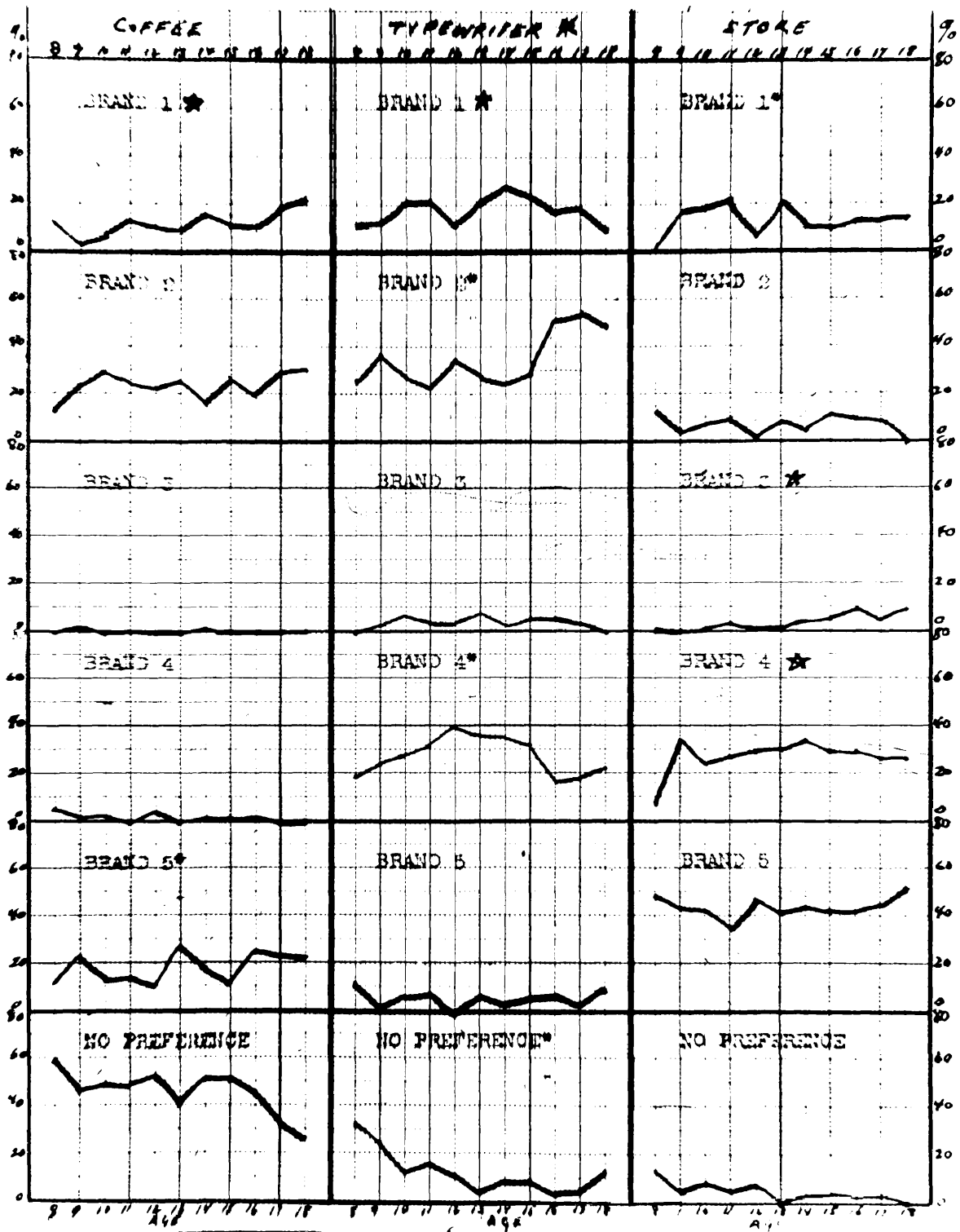
Figure 6. Brand preference by age
Significant difference 1%, ★ Significant difference
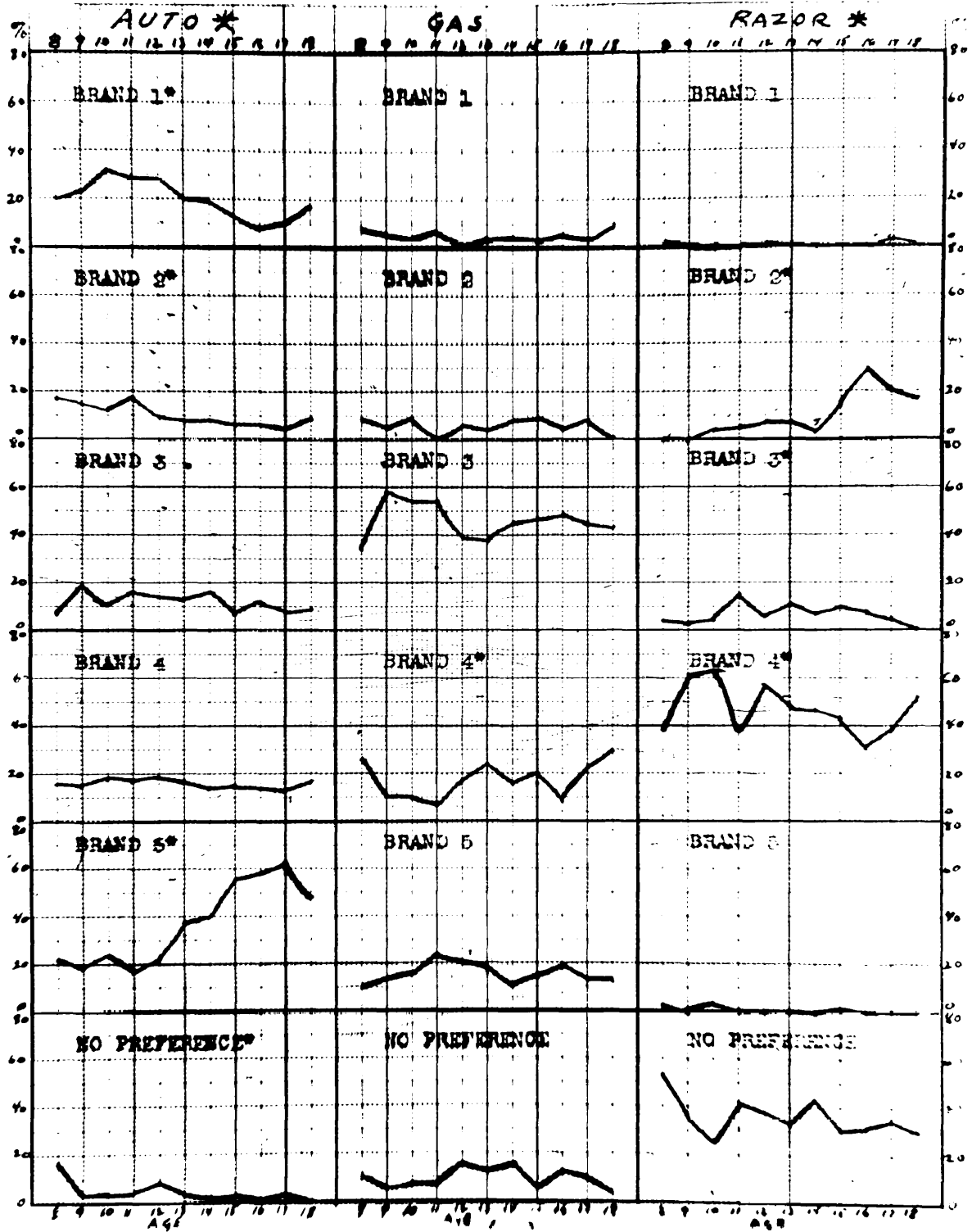
Figure 5 (Cont'), brand preferences by age
(significant difference), ★ significant difference

Figure 5 (Cont'). Brand preferences by age
(• Insignificant difference ., ★ Significant difference)

SOAP   CEREAL   " POLITICAL PARTIES

BRAND 1   BRAND 1   BRAND 1

BRAND 2 ★   BRAND 2*   BRAND 2

BRAND 3*   BRAND 3*   BRAND 3 ★

BRAND 4   BRAND 4   BRAND 4

BRAND 5   BRAND 5   BRAND 5*

NO PREFERENCE   NO PREFERENCE ★   NO PREFERENCE*

AGE   AGE   AGE
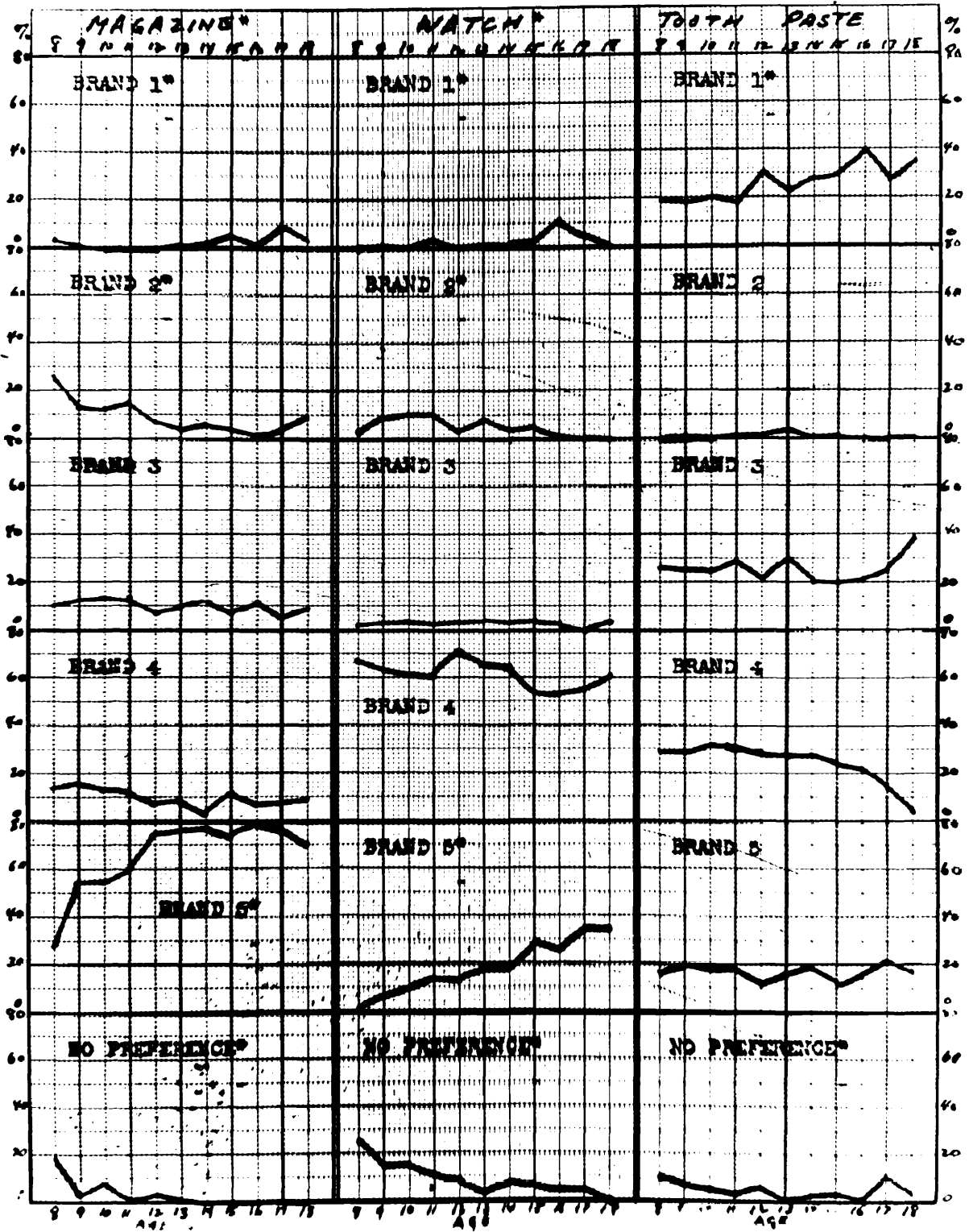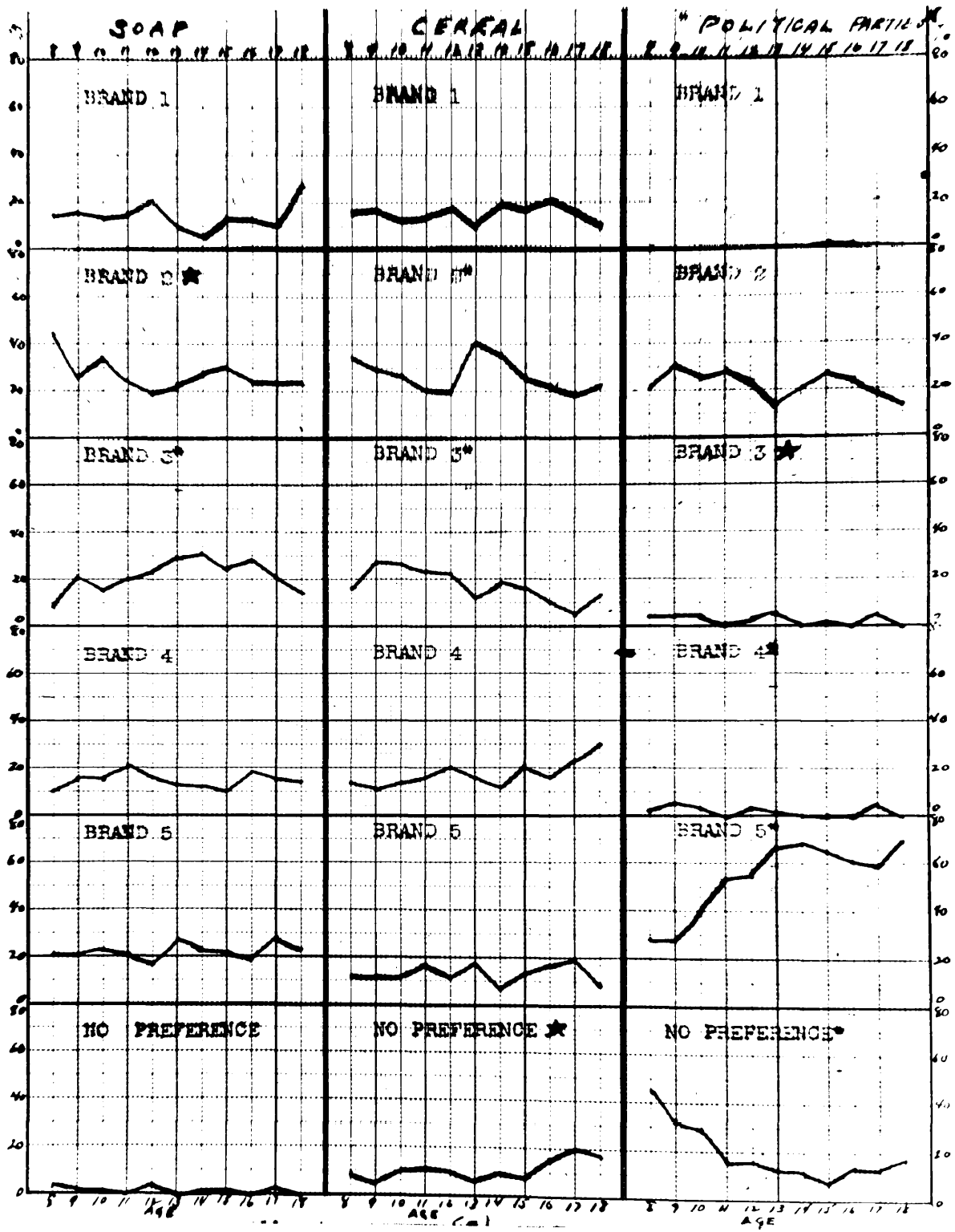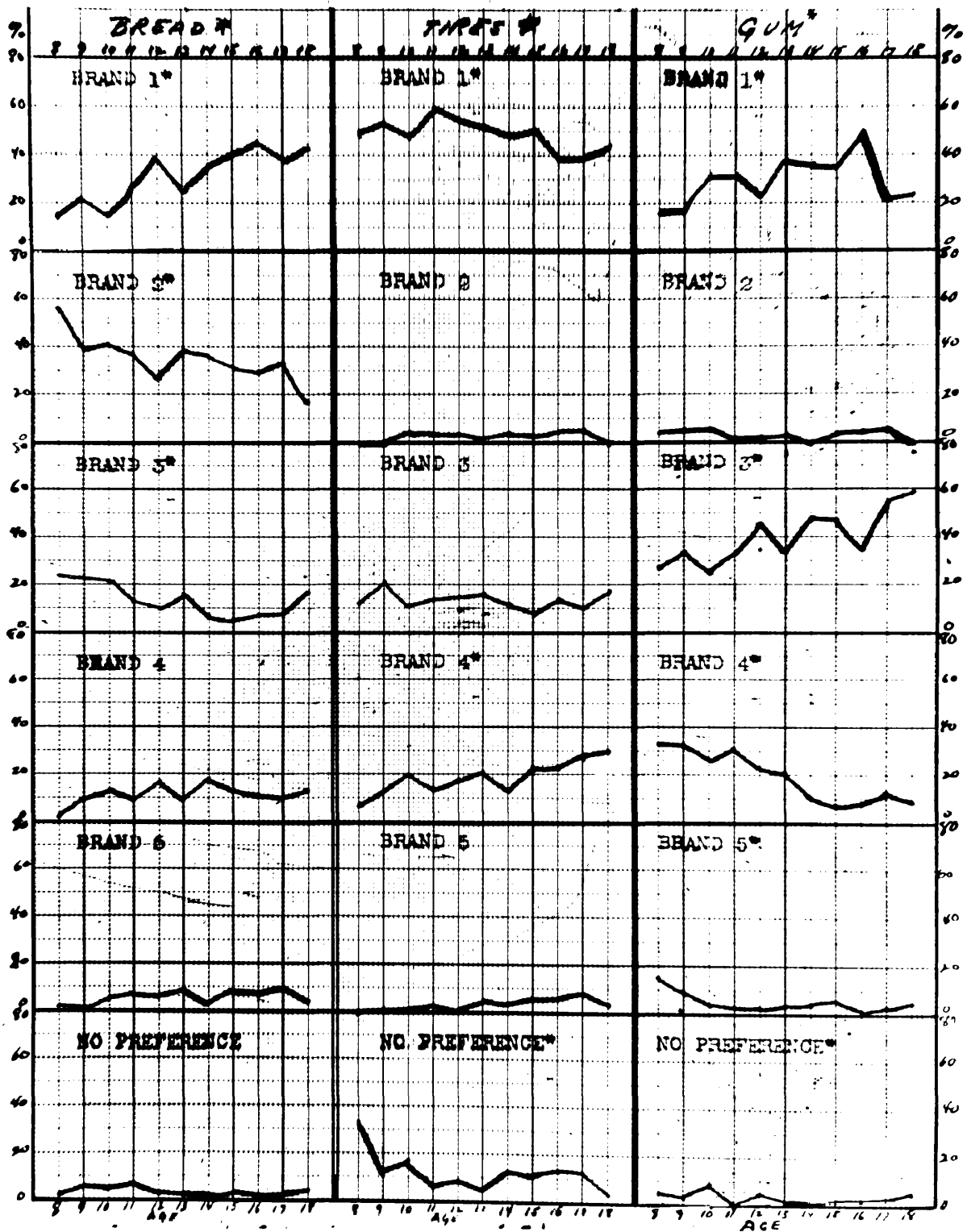
Figure 5 (Cont'). Brand preferences by age
(*Significant difference 1 , ★ Significant difference

Figure 5 (Cont'). Brand preferences by age
(•Significant difference 1%, ★ Significant difference 5%)
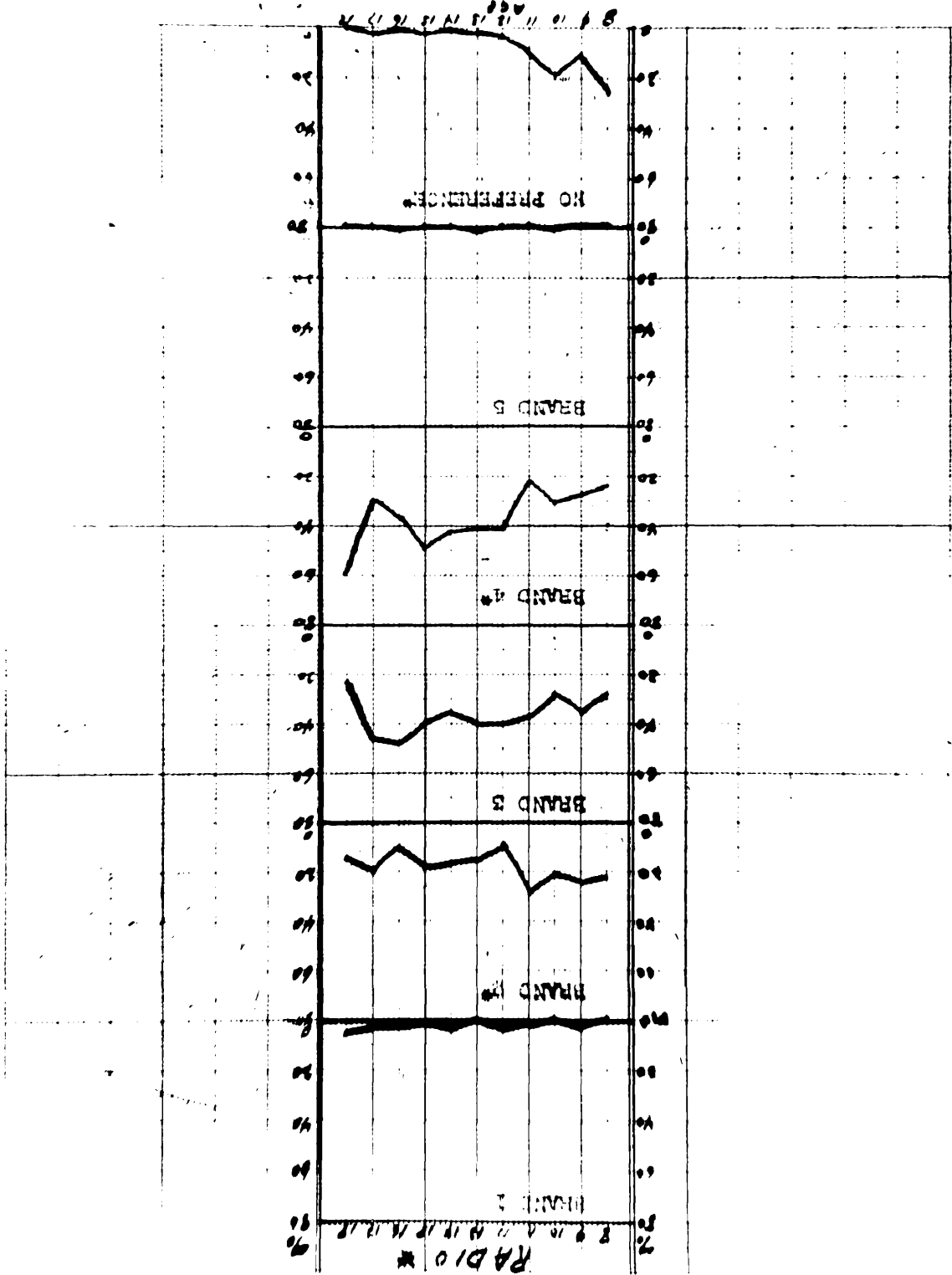
cating that responses in regard to typewriter vary significantly with age and that in this case we should not be justified in saying that general brand loyalty for all makes of typewriter exists. Under this method of evaluation the brands for those products not starred would be said to be recipients of brand loyalty.

It will be seen that, according to this criterion and for those products tested, and within the age range used, 10 of the 16 products did not obtain general brand loyalty since these commodities show significant differences with age. Of these 10, 9 are significant to the 1% level, and the other is significant to the 5% level. Therefore we would say that, for all brands of the product-categories tested, general brand loyalty exists only for department stores, gasoline, tooth-paste, soap, and cereal. Variations in preference with age are significant in all other cases.

The second comparison necessitated the establishment of the degree of variation within which we might still be justified in saying that the subjects were loyal to a single brand name. An arbitrary criterion was established in the following manner. The Chi Square corresponding to the 1% level of significance for the total number of brands for a product category was determined by reference to the sampling distribution of Chi Square. Assuming that each of the five brands and the no preference category contributed equally to the Chi Square, it was divided by six, and the resulting value designated as the critical point, above which loyalty for any one brand is lacking, and below which a moderate degree of loyalty is present. A like procedure was followed in determining the critical value for the 5% level of significance, above which a moderate degree of loyalty for any one brand is present, and below which a strong degree of loyalty is shown.

In Figure 5, a star beside the brand number signifies that the Chi Square for that brand was large enough to indicate lack of loyalty. For example, no star appears beside the product name coffee since there is no significant difference in general between the distributions of brand preferences from age to age. In other words, it might be said that, in general, brands of coffee receive loyalty. However, as the figure indicates, there is more variance in some brands than in others. Using the arbitrary criterion just developed, brands 1 and 5 were found to differ significantly enough in themselves to warrant calling them brands toward which loyalty is lacking and these brands are indicated by stars beside the brand number.

A consideration of the results from all comparisons for all products shows that, when the no preference category is included, 56% of the comparisons yield either a 1% or 5% significant difference, or 43% of them yield a 1% difference. Omitting the no preference category, which one might expect to change with age, 50% of the brands are found to have a 1% or 5% difference, or 43% have a 1% difference. These figures are large enough to suggest that loyalty exists for about 50% of the brands considered and, compared with the previous results, suggests further that loyalty is ordinarily specific to the brand and not to the product-category in general.

Comparing product by product and excluding the no preference category we find the results shown in Table 12. Since the number of brands for each product was 5, this table would indicate that 3 of the 5 brands of typewriter lacked loyalty. The important consideration here is that for all products there are some brands which receive loyalty.

The third comparison was made between initial and final status of

TABLE 12

NUMBER OF BRANDS LACKING LOYALTY BY
PRODUCT CATEGORY

Product	Number of brands lacking loyalty
Typewriter	3
Coffee	2
Store	3
Automobile	3
Gasoline	1
Razor	3
Magazine	3
Watch	3
Tooth paste	1
Soap	2
Cereal	2
Politics	3
Bread	3
Tires	2
Gum	4
Radio	2

the brand. The question is whether the percent of children preferring a brand tends to be the same at age 8 as at ages 17 and 18 combined. The important consideration to the advertiser and propagandist is the end result. It is important to know whether the initial status of the brand is approximately representative of the final status even though individuals' preferences may fluctuate during the interim. For this reason Chi Squares were computed for the number preferring each brand at age 8 against those preferring the same brand at ages 17 and 18 combined. The latter were combined because of the small number of cases in age 18.

The results of this comparison are shown in Table 13. Each product is assigned a box, and each brand is listed by number in this box. Again a comparison of all brands of a product was computed. The percentages above the product name indicate differences significant to the amount shown. We may note that 12 of the 16 products show no brand loyalty as

TABLE 13

DIFFERENCE BETWEEN % PREFERENCE PER BRAND AT AGE 8 AND AGE 17 18

1%

COFFEE

#	1%	5%
1		
2		+
3		
4		
5		
N		−

5%

TYPE.

#	1%	5%
1		
2		+
3		
4		
5		
N	−	

1%

STORE

#	1%	5%
1		
2		
3		+
4	+	
5		
N		−

1%

AUTO

#	1%	5%
1		
2		
3		
4		
5	+	
N	−	

GAS

#	1%	5%
1		
2		
3		
4		
5		
N		

5%

RAZOR

#	1%	5%
1		
2	+	
3		
4		
5		
N		

1%

MAGAZINE

#	1%	5%
1		
2	−	
3		
4		
5	+	
N	−	

1%

WATCH

#	1%	5%
1		
2		
3		
4		
5	+	
N	−	

T. PASTE

#	1%	5%
1		
2		
3		
4		−
5		
N		

SOAP

#	1%	5%
1		
2		−
3		
4		
5		
N		

CEREAL

#	1%	5%
1		
2		
3		
4		
5		
N		

1%

POLITICS

#	1%	5%
1		
2		
3		
4		
5	+	
N	−	

1%

BREAD

#	1%	5%
1	+	
2		
3		
4		+
5		
N		

1%

TIRES

#	1%	5%
1		
2		
3		
4		+
5		
N	−	−

1%

GUM

#	1%	5%
1		
2		
3		+
4		−
5		
N		

1%

RADIO

#	1%	5%
1		
2		
3		
4		
5		
N	−	

measured in this fashion. However, we must again consider specific
brands and not brands-in-general.

At the right of the box for each product there is space to desig-
nate differences significant to 1% and 5%. If nothing appears in either
of these two boxes, there was no significant difference between initial
and final status for that brand and we would consider the brand to receive
loyalty in this third sense. A plus sign indicates a significant differ-
ence of the magnitude shown and means that the difference is a gain in
the percentage preferring the brand, and in contrast, a minus sign, while
still indicating a significant difference, shows a loss in the number pre-
ferring the brand.

When the no preference category is included, 28% of the comparisons
yield significant differences of 1% or 5%, or 16% yield significant dif-
ferences of 1%. With the no preference category excluded, 23% of the
comparisons yield differences significant to 1% or 5%, or 10% yield dif-
ferences significant to 1%. In other words, loyalty as defined in this
manner is shown in about 75% of the cases since there is no significant
difference between the percentage preferring these brands at age 8 and
ages 17 and 18.

The best of all criteria of loyalty would of course be the relation
between early preference and actual buying behavior but this did not fall
within the scope of the present study.

One interesting case indicates the importance of environmental
changes. Reference to Figure 5 shows that the preference curve for
BRAND #2 of typewriters which represents Royal Typewriters changes con-
siderably after age 15. Such a sudden and violent fluctuation suggested
the action of some definite influence. A check of the responses indicat-

ing reasons for preference, next to be discussed, and with the high school, showed that the typing department had recently installed a complete new set of typewriters, all of which were Boyals. The results of this influence are obvious.

CONCLUSIONS

All of the following conclusions are made in the light of the conditions and the assumptions of the study.

1. The degree to which loyalty to brand names may be said to exist is a function of the method of measurement.

2. Brand loyalty is usually not descriptive of the whole product category to which a brand belongs. Only in the case of a few products does general brand loyalty exist for a product.

3. When loyalty is considered in relation to specific brands, a fairly high degree of loyalty exists. According to one criterion of loyalty, children are loyal to about 50% of the brands studied, and according to another criterion, children are loyal to about 75% to 90% of the brands studied.

In the light of these conclusions, early preferences may be regarded as having been shown to agree with later preferences. Whether these preferences tend to agree with brand preferences in the actual buying situation requires further experimentation. It remains for the present study to determine what factors are important influences in originating early preferences. The following chapter describes some preliminary data gathered in an attempt to throw some light upon this matter.

CHAPTER V

REASONS FOR PREFERENCE

INTRODUCTION

It has already been shown that even children of ages 7 and 8, when
asked which of several brands they like best, will usually select one of
the names presented even though allowed to avoid stating a preference.
It is both interesting and necessary to determine why the child, when con-
fronted with a choice, selects one brand rather than another, especially
if there is any tendency toward constancy of brand preference. A little
consideration will convince anyone that it is difficult for an adult to
report his own motivation in any setting; this suggests that a child
might find it even more difficult to do so. However, if some preliminary
evidence on motivation in children could be obtained, it might serve as a
guide to later and more elaborate verification. For these reasons this
part of the study was designed toggather preliminary data pertaining to
children's reasons for brand preference.

SUBJECTS

The subjects were selected from the same sample of 813 respondents
who had received the awareness test and the preference questionnaire.
The method employed did not permit the use of all subjects because of the
need for extensive interviewing, so one third of those tested for aware-
ness and preference each day were selected at random for a personal inter-
view. The sample of respondents for this section of the study consisted
of 271 children. In comparisons between reasons for preference and aware-
ness of brand names the sample was reduced by three cases because these

cases had not completed the awareness test. This left a total of 268 cases. The sample for the fractionation according to IQ contained 98 cases whose IQ was above 110 and 118 cases whose IQ was below 110, a total of 216 cases. Another fractionation on the basis of economic status alloted 132 cases to Groups A and B combined, and 135 cases to groups C and D combined. After 2 cases aged 7 are eliminated the sample according to age distribution is as shown in Table 14.

TABLE 14

DISTRIBUTION ACCORDING TO AGE LEVEL OF SUBJECTS PERSONALLY INTERVIEWED

Age	8	9	10	11	12	13	14	15	16	17	18	Total
N	22	27	28	26	16	30	38	34	34	9	5	269

MATERIALS

A personal interview questionnaire was developed which questioned the subjects as to their reason for preferring the brand they had indicated for each product on the preference questionnaire. The questionnaire was standardized to obtain comparable results from interviewer to interviewer and to assure that the questions would be asked in the same way to each subject. A copy of the questionnaire will be found in the Appendix.

A series of pretests employing the same samples that had been used in the previous pretests established the most likely categories of responses. Space was available on the questionnaire for responses falling under these headings and for other responses. It was also possible to indicate the order of responses whenever more than one reason was given.

PROCEDURE

The awareness test and the preference questionnaire were adminis-

tered during the first school period in the morning. Immediately there-
after, the experimenter and two trained interviewers withdrew to a room
in the school assigned for interviewing. One third of the subjects for
that morning were selected at random and then were called individually
from the classroom for personal interview. They were told that persons
like certain things better than others and that the purpose of the study
was to find out the reasons for their preference. After a few brief
'warm-up' questions had been asked about their buying habits, the prefer-
ence questionnaire was shown to them and they were asked why had had se-
lected the brand they did for the first product. Each response was regis-
tered on the interview sheet by the interviewer and approval of the re-
sponse was expressed regardless of the answer given. The child was al-
ways asked if there were any other reasons for choosing the particular
brand and a second answer was noted if forthcoming. This procedure was
followed until the child said he had no other reasons and then the experi-
menter went on to the next product and followed the same procedure.

No questions were asked about products where no preference had been
indicated. At the end of the interview the interviewee was asked what
radio programs he listened to regularly and also what products were ad-
vertised by these programs. Upon his return to the classroom, the next
interviewee was called. All the interviewing was completed during the
morning session with the result that there was small likelihood the sub-
jects would be able to discuss the study to any extent.

The interviewers were trained in personal interviewing and were
familiar with the problem being studied since each of them had partici-
pated in the pretests and had discussed the results with the experimenter.
It is believed, therefore, that their interviewing was comparable. Con-
siderable leeway in classifying responses was necessary but in most cases

a short phrase indicating the exact response was entered on the sheet. In this way the experimenter was able to correct any errors of classification when the data were tabulated.

RESULTS

A deliberately imposed limitation was that only first reasons have been tabulated and discussed. As previously stated, second and third reasons were solicited but these have not been treated in this paper. Furthermore it was necessary to form some classificatory scheme to facilitate handling of the data. The classes of reasons for preference finally decided upon consisted of the following categories listed with the abbreviations used in graphs and tables.

Attribute   (Att.)

Domestic Use (DU)

Radio Advertising (Radio)

Personal Suggestion (P. Sug.)

Printed Advertising (Print)

Relative or respondent works or
has worked under the brand name
                    (Work)

Other advertising than printing or
radio   (O. Adv.)

Health

Not the buyer (N. Buy.)

Miscellaneous (Misc.)

Don't Know (DK)

No Preference (No Pref.)

These terms were defined in the following manner:

Att.   anything that is inherent in the product such as design, color, etc.

DU   includes use by father, mother, sister, or brother, or any other relative provided that relative and child reside under the same roof.

P. Sug. anything that would fit under the phrase, "somebody told me", which includes doctor's advice, and parent's suggestion when DU not given.

Print   printed advertising, usually magazines or newspapers

Radio   radio advertising

Work	either a relative or the person himself being associated with the brand in a business connection.
O. Adv.	any advertising not included under radio and print, including bilap (Goodyear) advertising, or tire covers.
Health	reasons that would include such phrases as "it's good for me", or "it has more vitamins", etc.
N. Buyer	in a few cases where the child said he owned something of the brand preferred and he was not the buyer of the product; any gift.
Misc.	any reasons not subsumed under the other categories mentioned.
DK	respondent unable to give any reason for preference
No Pref.	no preference was shown on the preference questionnaire.

A tabulation of the results according to this classification showed that most of the responses fell into the categories of domestic use, attribute, don't know, and no preference; in using tests of significance all other reasons were combined into an other reason class. Complete tables of responses obtained will be found in the Appendix. The results will be discussed under seven headings: 1) children's stated reasons for preference, 2) children's reasons for preference in relation to IQ, 3) children's reasons for preference in relation to awareness-preference agreement, 4) children's reasons for preference in relation to the criterion of awareness, 5) children's reasons for preference in relation to age, 6) children's reasons for preference in relation to economic status, and 7) children's reasons for preference in relation to mother's reasons for purchase.

Children's stated reasons for preference. The percentage of children (N = 271) giving each of the four main responses is presented in Table 15. The differences between the cross totals and 100% are attributable to other reasons.

It is interesting to note that an inverse relationship exists between

TABLE 15

COMPARISON OF PRODUCTS ACCORDING TO CHILDREN'S REASONS
FOR PREFERENCE
(In percents.   Responses = 4336)

Products	Reasons			
	Att.	DU	DK	No Pref.
Gum	75	4	10	4
Magazine	67	20	4	3
Cereal	47	27	8	9
Soap	43	43	8	1
Tooth Paste	42	46	4	3
Bread	40	42	4	4
Store	35	43	5	5
Automobile	35	36	7	7
Watch	25	26	16	10
Radio	18	51	13	7
Tire	15	48	7	10
Typewriter	13	33	18	10
Gasoline	10	58	10	10
Politics	8	53	16	16
Coffee	8	28	10	44
Razor	6	45	10	30

the ranking of products according to the percentage of children stating responses referring to attributes and domestic use. A rank order correlation between these two series yielded a Rho of -.53. It will also be noted that a large percentage of the children stated no preference for coffee and razor.

This table shows that for three products, gum, magazine, and cereal, there are large and significant differences between the percentage giving attribute and domestic use as reasons for preference, in favor of the former. The products radio, tire, typewriter, gasoline, politics, coffee, and razor also have large and significant differences between attribute and domestic use but in favor of the latter as a reason for preference. The rest of the products show small and insignificant differences between the two kinds of responses.

On the basis of these results, three groups of products are dis-

tinguishable, those for which the stated reasons refer chiefly to <u>attri-butes</u>, those for which the stated reasons refer chiefly to <u>domestic use</u>, and those for which <u>both attributes</u> and <u>domestic use</u> are mentioned as important influences in determining children's preference.

<u>Ch</u>ildren's reasons for preference in relation to IQ. The 216 children who were personally interviewed and whose IQ was known were separated into two groups, those with IQ's 110 and above and those with IQ's below 110. Reasons for preference were tabulated for each of these groups separately. The results are presented in Table 16.

TABLE 16

COMPARISON OF IQ GROUPS ACCORDING TO THE PERCENTAGE
STATING EACH TYPE OF REASON FOR PREFERENCE

Reasons	High IQ (110 and above) Responses= 1568	Low IQ (Below 110) Responses= 1888
Att.	30	29
Radio	2	2
Print	1	1
DU	39	40
Work	1	1
P Sug.	3	4
O Adv.	1	1
Health	0	0
N Buy	0	0
Misc	4	3
DK	9	10
No Pref	10	11

In the above table, the term <u>responses</u> refers to the base figure from which the percentages were found. For example, for any one product there were 98 responses given by the 98 respondents in the higher IQ group and 118 responses given by the 118 respondents in the lower IQ group. When the total number of responses for <u>all</u> products (16) is combined there are 1568 (98 x 16) responses in the higher IQ group and 1888 (118 x 16) responses in the lower IQ group. These figures should not be

confused with the actual number of respondents in each group which for
this table were 98 in the higher group and 118 in the lower group In
other words, for all products combined 30% of all responses from the high-
er IQ group referred to attributes and 29% of all responses from the low-
er IQ group referred to attributes. The term responses is used in the
same way in succeeding tables.

The percentage of children giving each reason for all products com-
bined is in high agreement but further computations were made. The Chi
Squares between the high and low IQ groups were determined for each pro-
duct according to the responses referring to attribute, domestic use, per-
sonal suggestion, don't know, no preference, and all others. Only two Chi
Squares were large enough to indicate that the differences could not be
attributed to sampling errors, those for coffee (1%), and tires (5%), and
no general trend is apparent. However, Table 17 lists the intra-reason
differences found to be significant.

TABLE 17

SIGNIFICANT DIFFERENCES BETWEEN THOSE IN THE HIGH AND
THOSE IN THE LOW IQ GROUPS IN STATING REASONS FOR
SELECTING BRANDS OF SPECIFIC PRODUCTS

Reason	Product	High IQ Group	Low IQ Group	Level of sig. of diff.
All others	Typewriter	21	12	5%
All others	Tires	22	9	1%
DU	Gum	1	9	5%
Att.	Coffee	3	13	5%
DK	Coffee	4	19	1%
No Pref.	Coffee	54	38	1%

The results presented in this table indicate that for tires, and type-
writers the children classified in the high IQ group gave a larger variety
of reasons for preference than did those in the lower IQ group; for gum,
the lower group gave domestic use as a reason for preference more than the
upper group; and for coffee, the lower group gave reasons referring to

attributes or did not state a reason for preference, whereas the higher
group expressed no preference more frequently than the lower group.

Children's reasons for preference in relation to awareness-prefer-
ence agreement. It will be recalled that the children were separated
into two groups, those whose brand preference as indicated on the prefer-
ence questionnaire agreed with knowledge of the brands as shown by the
awareness test. It was thought that the reasons given for preference
might differ between the children constituting these two groups. There-
fore the data were fractionated on this basis. The results of a tabula-
tion for reasons for preference according to awareness-preference agree-
ment are shown in Table 18.

TABLE 18.

COMPARISON BETWEEN CHILDREN WHO WERE FAMILIAR WITH THE BRAND
THEY PREFERRED AND CHILDREN WHO WERE NOT FAMILIAR WITH THE
BRAND THEY PREFERRED ACCORDING TO THE PERCENTAGE STATING
EACH TYPE OF REASON FOR PREFERENCE

Reason	Agreement Responses=4071	Disagreement Responses = 217
Att.	32	31
Radio	2	2
Print	1	1
DU	37	33
Work	1	0
P Sug	3	4
O Adv	1	1
Health	0	0
N Buy	0	0
Misc	3	6
DK	9	22
No Pref.	10	0

The differences are all small except for the two final comparisons.
There would necessarily be a difference in the no preference category be-
cause if no preference was shown according to the criterion established,
disagreement with preference as far as knowledge on the awareness test is

concerned was impossible. On the other hand, however, the next to the last comparison shows that those whose preference, as shown by the questionnaire, disagreed with knowledge, as shown by the awareness test, were more likely not to state the reason for their preference.

Children's reasons for preference in relation to the criterion of awareness. Even though the differences between the subjects' reasons were small when divided according to awareness-preference agreement, differences between those satisfying and those not satisfying the criterion of awareness might yield a different picture. (It will be remembered that those who satisfied the criterion of awareness for a product were assumed to be aware of brands for that product.) For this reason the subjects were reclassified on this basis and the percentage responding with each reason determined. Table 19 presents the results of this comparison.

TABLE 19

COMPARISON BETWEEN CHILDREN SATISFYING AND CHILDREN NOT SATISFYING
THE CRITERION OF AWARENESS ACCORDING TO THE PERCENTAGE STATING
EACH TYPE OF REASON FOR PREFERENCE

Reason	Satisfied criterion Responses = 2946	Did not satisfy criterion Responses = 1342
Att	34	23
Radio	2	3
Print	1	1
DU	39	36
Work	1	1
P Sug	3	4
O Adv	0	1
Health	0	0
N Buy	0	0
Misc	3	4
DK	9	12
No Pref.	8	15

The table shows that, for the most part, the differences between the groups are very small. However, 11% more of those that satisfied the cri-

terion of awareness gave <u>attribute</u> as a reason, 3% less responded with
<u>don't know</u>, and 7% less had <u>no preference</u>. All of these differences are
significant, the other differences are not.

Further computations were made for the product categories to deter-
mine whether any differences in reasons between the two groups would be
significant. Five kinds of responses were compared, <u>domestic use</u>, <u>attri-
bute</u>, <u>don't know</u>, <u>no preference</u>, and <u>all others</u>, and the Chi Square Test
was applied. Significant differences between the distributions were
found only in four cases, the products being <u>typewriter</u> (5%), <u>radio</u> (5%),
<u>politics</u> (1%), and <u>watches</u> (5%), and the differences do not seem to be
in any one direction. Intra-reason comparisons yielded the date pre-
sented in Table 20.

TABLE 20.

SIGNIFICANT DIFFERENCES BETWEEN THOSE SATISFYING AND THOSE NOT
SATISFYING THE CRITERION OF AWARENESS IN STATING REASONS FOR
SELECTING BRANDS OF SPECIFIC PRODUCTS

Reason	Product	Satisfied criterion	Did not satisfy criterion	Level of sig. of diff.
DK	Radio	7	28	5%
DU	Politics	126	16	1%
No Pref.	Politics	28	15	5%
No Pref.	Watch	5	21	1%

The results shown in this table indicate that those who did not satisfy
the criterion of awareness stated <u>don't know</u> more frequently than those
that did satisfy the criterion of awareness when asked their reason for
preferring a particular brand of <u>radio</u>. A larger number of those not
satisfying the criterion had <u>no preference</u> for <u>watches</u> when compared
with those satisfying the criterion. On the other hand, those who did
satisfy the criterion tended to give responses referring to <u>domestic use</u>
or <u>no preference</u> for <u>politics</u> more than those who did not satisfy the

criterion. Evidently, greater familiarity with brands of watches or radios led to the establishment of a preference and a reason for that preference. Greater familiarity with political parties led the subjects to indicate no preference or to give domestic use as a reason for preference.

Children's reasons for preference in relation to age. The possibility that there would be a change in the type of reason with age differences led to an investigation of this factor. Two classes of answers, attribute and domestic use, were compared with age changes, and the Chi Square Test applied. These comparisons showed that the only significant trend apparent was a tendency to give attribute as a reason for preferring brands of typewriters as age increases. In general, the hypothesis that as they grew older, the percentage of children giving domestic use as a reason for preference would decrease and that responses referring to attributes would increase is refuted.

Children's reasons for preference in relation to economic status. The possibility that economic status might bear some relationship to reasons for preference inspired a search into these relationships. The A and B economic groups, and the C and D economic groups were combined, resulting in a twofold classification on the basis of economic status. When the reasons were combined for all products for each group the data shown in Table 21 were obtained.

Again the differences were small in all cases but a Chi Square Test of significance was computed for the distributions of the two economic groupings and the responses attribute, domestic use, personal suggestion, don't know, no preference, and all others. These more specific comparisons yielded only 6 significant differences as shown in Table 22.

TABLE 21.

COMPARISON BETWEEN CHILDREN IN THE HIGHER AND IN THE LOWER
ECONOMIC GROUPS ACCORDING TO THE PERCENTAGE STATING EACH
TYPE OF REASON FOR PREFERENCE

Reason	A & B Responses = 2112	C & D Responses = 2160
Att.	29	32
Radio	3	1
Print	1	1
DU	38	38
Work	1	1
P Sug	3	3
O Adv	1	1
Health	0	0
N Buy	0	0
Misc	4	3
DK	9	10
No Pref	11	10

TABLE 22.

SIGNIFICANT DIFFERENCES BETWEEN ECONOMIC GROUPS IN STATING
REASONS FOR SELECTING BRANDS OF SPECIFIC PRODUCTS

Reason	Product	A & B	C & D	Level of sig.
All others	Auto	13	4	5%
No pref.	Politics	9	24	5%
All others	Soap	10	2	5%
P. Sug.	ToothPaste	4	0	5%
DU	Watch	25	44	5%
All others	Watch	37	16	5%

The results presented in this table indicate that for automobiles, soap, and watches the children in the higher economic group gave more varied reasons for preference as shown by the difference in the all other category. A larger proportion of those in the lower economic group had no preference for political parties and gave domestic use as a reason for choosing brands of watches than those in the higher economic group. In general, though, the conclusion is that there are no differences in reasons for preference between the higher and lower economic groups.

DISCUSSION AND RESULTS OF MOTHERS' PERSONAL INTERVIEWS

Children's reasons for preference in relation to mothers' reasons for purchase. It was thought that perhaps some indication of the constancy of the proportions stating each kind of reason for preference might be obtained from a comparison of children's reasons for preference with mothers' reasons for purchase. This involves the assumption that parents will buy the brands they prefer which is only partly true since purchasing power limits the extent to which actual purchase and preference agree. However, a rough approximation of the situation may be gained from this comparison.

A personal interview questionnaire was designed and pretested several times with mothers of the children used in pretesting the other materials for this study. Appropriate revisions were made at the end of each pretest period and the final form established. A copy of this questionnaire may be found in the Appendix. Approximately the same material was gathered from this questionnaire as from the child's, except that the mother was asked her reason for buying a particular brand rather than her preference. She was also asked what brand she last bought or owned at present for 15 of the 16 products considered with the children. Political parties were not included since it was feared that they might unnecessarily jeopardize the other responses, and pretests had shown a hesitancy on the part of adult respondents when faced with this question. The interviewers were the same ones who participated in the children's program. All housewives were interviewed in the home.

The 121 parents interviewed were almost always mothers of children who had been personally interviewed in the odd grades of school, i.e., grades 3, 5, 7, 9, and 11. These 121 mothers actually represented 173 children since many of them had more than one child in the complete sample

used.

A complete tabulation of their reasons for purchase by products may
be found in the Appendix. The results when all products are combined are
shown in Table 23, with the comparison data from the children's reasons.

TABLE 23

COMPARISON OF MOTHERS' REASONS FOR PURCHASE WITH CHILDREN'S
REASONS FOR PREFERENCE

Reason	Mothers' Responses = 1815	Children's Responses = 4336	Difference
Att	43	31	12
Radio	0	2	2
Print	0	1	1
DU	12	38	26
Work	2	1	1
P Sug	4	3	1
O Adv.	0	1	1
Health	1	0	1
N Buy	5	0	5
Misc	4	3	1
DK	11	9	2
No Pref or Don't own	18	11	7

The differences between these percentages are small except in the case
of attribute, domestic use, not the buyer, and no preference, but every
one of the differences is significant. The important differences, how-
ever, are those concerning attribute, domestic use, not the buyer, and
no preference or don't own. Considering the latter first, a difference
is very likely since the children were asked only their preference but
the parents were asked what brand they owned. Obviously many of the
parents did not own typewriters, some did not own automobiles or radios,
and others did not take any magazine regularly or did not chew gum. This
difference between the groups would therefore be expected. The difference
in the not the buyer category is also explanable in the same way. Many of

the mothers did not buy their own watches or radios, and the wives had very little to say about the brand of razor, or automobile, or tire the husbands bought. The only opportunity a child's answer had to be so classified was when he owned the branded object but indicated that he did not do the buying. This difference would also be expected.

However, the difference between the remaining two categories _attribute_ and _domestic use_ is of interest. It was believed that, with increased age, the child might tend to change reasons from _domestic use_ to _attribute_. When tabulations were made for this, the hypothesis was negated because the differences were not significant. Somewhere between the age of 18 and adulthood, a change probably does take place, because the mothers did   give **attributes** as reasons more than _domestic use_ whereas the reverse is the case with the children. This is merely suggestive but it points the way to a more complete follow-up of the age differential.

One other thing must be emphasized. Even though differences between mothers' and children's reasons do exist, the relative ranking of reasons resulted in a rank order correlation of .72. This indicates that in general children and mothers tend to give reasons for preference and reasons for purchase in the same proportion, although the Rho may be slightly high from an excess of tie ranks.

SUMMARY AND CONCLUSIONS

This part of the study was designed to investigate the influences that bear upon the development of **brand** preferences. All of the results were obtained from the subjects' own report of reasons for preference. The responses obtained are accordingly subject to rationalizations by the subjects, but indications in regard to channels of influence and relative importance of influences have been obtained. In the light of the condi-

tions of the study, the following conclusions may be drawn:

1. The relative ranking of children's reasons for preference for all products combined was: 1) domestic use, 2) attribute, 3) personal suggestion, 4) radio programs, 5) printed advertising, 6.5) relatives or the respondent working in some capacity related to the brand name, 6.5) advertising other than radio or printed advertising, and 8) health. This order remains practically intact regardless of the mode of fractionation of results.

2. For gum, magazines, and cereal, the attributes of the product seemed to be the most important reason for preference, whereas for radio, tire, typewriter, gasoline, politics, coffee, and razor, use at home was the most important influence in brand preference. The other products studied depended upon both domestic use and attributes fairly equally.

3. In the case of coffee and razor, a large number of children had not developed any preference.

4. It had no appreciable relationship to reasons for preference.

5. In general, those not aware of the brand they preferred tended to give reasons in the same proportions as those aware of the preferred brand. However, those not aware of the preferred brand tended not to report the reason for their preference to a greater extent than those aware of the preferred brand.

6. The children more familiar with brands tended to give responses in the same proportion as the children not familiar with brands except for the following instances. Responses referring to attributes were given more often by those familiar than those not familiar with brands. On the other hand, the group not familiar with brands responded with don't know or no preference more often than the group familiar with brands.

7. No significant differences in reasons were found for different ages.

8. The higher and lower economic groups tended to respond in the same manner.

9. The rank order of agreement for reasons for preference by the child and reasons for purchase by the mother yielded a rank order correlation of .72. Further, the mother tended to give attributes of the product as the reason for purchase more than the child whereas the child tended to give domestic use as the reason for preference more than the mother.

CHAPTER VI

DISCUSSION OF RESULTS

This study was designed to test the hypothesis that brand loyalty
is present in children, and also to gather evidence pertinent to the rea-
sons for brand preference. Data on brand awareness were gathered to serve
as a framework for the two main problems. Standard variables of age, eco-
nomic status, IQ, and number of siblings in the family were related to
the data obtained.

The results from the study of brand awareness indicate that an in-
crease in brand awareness occurs with increasing age, i.e., a greater per-
centage of older children are aware of brand names than are younger chil-
dren. This is in agreement with the results of Janssens and Hahn previ-
ously discussed. However, inasmuch as the percentage of children aware
of brand names at a given age level varies from product to product there
is evidence that awareness of the brands for different products arises at
different ages. Between the sexes, no significant differences in brand-
awareness were found. A rough sequence of appearance of awareness of
brands for products was found, but an attempt to discover related groups
of products in which awareness developed at the same time proved unsuccess-
ful. It may be that the ranking obtained is actually a rank order of the
development of the child's interest in different products; again no direct
evidence on this point is available. Hotchkiss and Franken found that,
although frequency of purchase was not related to the first brand recalled
by their subjects in a controlled association test, frequency of use was,
but since their study employed different subjects and a different methodo-
logy, it is not surprising that the results of the present study are not

in complete agreement.

The relationships of the standard variables, age, economic status, IQ, and number of siblings, yielded some interesting comparisons. One might expect that the larger the number of children in a family, the greater would be the brand awareness by reason of the greater frequency of use enjoyed by some products, and also since siblings have greater opportunity to discuss their favorite brands. On the contrary, this study shows no significant relationship between awareness of brands and number of siblings.

Both economic status and IQ, however, do show relationship with awareness. In general, improved economic status is accompanied by an increase in awareness, but a large part of the total variance is contributed by the lowest of the four economic groups. This suggests that once this minimum economic group is exceeded, there is little or no relationship between economic group and awareness, but members of the lowest economic group are more likely to know less about brand names than the other three groups. It may well be that this group has less opportunity to see and hear brand advertising through a lack of the advantages more common to the upper economic groups.

In many respects, the relationship between IQ and awareness may be subjected to the same sort of analysis. Although the differences between the percentage satisfying the criterion of awareness in each IQ classification are significant, the largest portion of the total variance is contributed by the lower IQ groups. Again a minimum score is indicated above which there is little or no relationship between IQ and awareness, but below which there is more likelihood of not knowing than knowing about brands. Although no significant differences appear between the upper groups there is a suggestion that there may also be a maximum score above

which awareness of brands is not as frequent. This is shown by a decline in the number of children aware of brands after a particular IQ score has been reached. This point varies for different products.

The study of **brand** preference from age to age indicated that loyalty exists for specific brands. Comparisons of all brands of a product at one time suggested that brand loyalty did not exist but an analysis of specific brands led to another kind of comparison. When more specific comparisons were made considering each brand separately they showed the existence of loyalty in about 50% of the brands studied. A further comparison between the percentage preferring each brand at age 8 and at age 17 and 18 showed that the percents were not significantly different in about 70% of the comparisons, indicating that although the percentage of children preferring the various brands at each age level may fluctuate considerably, in about 70% of the cases, the brand has about the same percentage of children preferring it at the final age level studied as at the first age level studied.

One very important consideration to be noted is that brand loyalty may be considerably influenced by definite changes in the environmental background. An example of this is clearly illustrated in the case of typewriters. The brands of typewriters maintain approximately their relative position in regard to percent of children preferring them up to high school age; then there is a large and sudden increase in the number of children preferring Royal Typewriter. A check with the high school showed that the typing department had just installed a new set of Royal Typewriters and it would appear that this was a major factor in producing the sharp increase in preference for this brand of typewriter. This kind of influence is of considerable importance to the advertiser, since

it indicated that factors of this kind are important in building brand
preference.

The study of reasons for brand preference yielded data which seem
to be supported from internal evidence in the study. In general, the
main two reasons for preference given by the children were domestic use,
or use in the home, and reasons given by virtue of attributes of the
brand. For all breakdowns made, these two factors stand out as the im-
portant ones. A breakdown for IQ indicated that there was no relation-
ship between IQ and types of reasons for preference except in a few spe-
cific instances in which those with higher IQ's tended to give other
reasons more frequently than those with lower IQ's. Along with IQ, eco-
nomic status did not seem to have any relationship with the kind of rea-
son given for preference, nor did the age of the subjects relate to the
type of reasons given. It thus seems that the type of reasons given for
preference maintain the same relative standing regardless of the IQ,
economic status, or age group to which the child belongs.

Two other kinds of comparisons were made with reasons for preference;
the first, the relationship between those knowing the brand they preferred
vs. those not knowing the brand; and secondly, the relationship between
those passing the criterion of awareness vs. those not passing the criter-
ion of awareness for the brands of products in general. In the main, a
significant difference obtained between the percentage answering don't know
to the question of why they picked a particular brand, those not familiar
with the brand they preferred giving don't know as a response with great-
er frequency than those who were familiar with the brand preferred. Pre-
sumably those children who did not know why they preferred a particular
brand would have two courses open to them at a later time, either to

change their preference to fit an adequate reason when one became apparent, or to maintain their preference and to fit a reason to this preference.

The second comparison was made between those who did and those who did not satisfy the criterion of awareness. The former may be considered to show a more varied knowledge of brands than the latter. This comparison showed that those who were more familiar with brands tended to give responses referring to attributes of products as a reason for preference whereas those less familiar with brands tended to answer don't know or to indicate no preference. This suggests that greater familiarity with brands in general might lead to a more permanent preference since the pros and cons of the various brands might have been weighed whereas lack of familiarity with brands again would lead either to a change in preference to agree with a reason for preference or a rationalized reason for preference to agree with an earlier established preference. The actual kind of change awaits future study.

A comparison of children's reasons for preference with mothers' reasons for purchase showed a high relationship. Most of the reasons are directly related with the exception of attribute and domestic use. The mothers tended to give domestic use as a reason with less frequency than the children, and tended to give attributes of the product with greater frequency than the child. It seems from these results that, if we assume the mothers' purchase tends to be in general accord with preference, somewhere between the last age level studied in children and the time they begin to purchase for themselves, attributes of the brand become more important as a reason for preference. However, this is only a hypothesis.

Since this study was essentially exploratory, many suggestions for

further study are presented. It is believed that a study of awareness is not a compulsory antecedent to a study of preference or reasons for preference. However, an interesting problem in respect to the age at which the child is able to differentiate correctly product names and brand names is worthy of study.

Obviously a study by individual follow-up is desirable as a check on the results obtained from this cross-sectional study of brand loyalty. Further, however, some attempt should be made to secure data on younger children to try and determine the lower limit at which brand preferences are indicated, and a continuation of the study of preferences at higher age levels until the best check upon the influence of early preferences can be made, that of actual buying behavior.

The aspect of motivation for preference and purchase offers a most fruitful field of study. A further study of reasons using approximately the same technique used here but with a more rigorous classificatory scheme for reasons is indicated. Furthermore, a study of influences in themselves is important. Although an attribute of the product is an adequate reason for preference, it is believed that before the person can give an attribute of the product he must first use the product or have been influenced in some way to know about the attribute. Therefore, all those who name an attribute as a reason for preference should be exposed to a more rigorous questioning to determine how they knew about the attribute, and if they knew about the attribute from using the product a check on what influenced them to buy the product originally should be made. Therefore two types of questioning appear to be important, namely, questions concerning the reasons that prompted original preference or use, and questions concerning the reasons for continued preference or use.

Studies of this kind would of necessity require a longer and more complete interview procedure with highly trained interviewers. Therefore, it would be feasible to limit the number of products studied and to try to present a more complete list of brands for each product.

Another possibility for further study would be the establishment of a model situation in which the child would make his preference upon a more mature basis, i.e., he would choose one brand rather than other possible brands in an actual situation in which he would receive either the product itself or something symbolic of the product, and would pay for his choice in the same ratio that he would pay in an actual buying situation. In this way his preference would involve not only stating a preference in a theoretical situation but actually making a choice as he would in a real life situation. The procedure would have to be complex and so at the present time no appropriate plan has been devised.

More feasible from a practical point of view would be a series of empirical checks upon actual buying behavior of the child. This would be possible if the aid of a neighborhood druggist or grocer could be enlisted. Various experimental changes could be introduced and the responses of the child noted. Along with this, the aid of the mother could be solicited by having her note what radio programs the child listened to, and what brands of food products the child preferred. In the preliminary stages of such a study a clinical approach is indicated but as a sufficient number of cases were added, statistical treatment would become possible.

Studies of the kind indicated would add materially to an understanding of the significance of brand names in daily life. However, until such additions to the general fund of knowledge can be obtained from controlled observation, the present study may serve two main purposes. In

the first place, the results obtained provide tentative conclusions which may be of immediate value to the prudent advertiser who will interpret the conclusions in the light of the conditions under which the data were obtained. In the second place, this study should serve as a reference point for further study by delineating the field and by indicating general directions for the establishment of more rigid controls and classifications unforeseen when the present study was conceived.

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APPENDIX I

COMPLETE TABULATIONS OF DATA

OBTAINED IN THE STUDY

TABLE I.   BRAND NAMES USED DIVIDED ACCORDING TO PRODUCT

PRODUCT	BRAND 1	BRAND 2	BRAND 3	BRAND 4	BRAND 5
Coffee	Chase & Sanborn	Wilkens	Bokar	Red Circle	Maxwell House
Typewriters	Remington	Royal	Corona	Underwood	L.C.Smith
Stores	Lansburgh	Kann	Garfinkel	Hecht	Woodward & Lothrop
Automobiles	Plymouth	Ford	Packard	Chevrolet	Buick
Gasoline	Shell	Sunoco	Esso	Gulf	Texaco
Razors	Durham-Duplex	Schick	Gem	Gillette	Rolls
Magazines	Time	Liberty	Colliers	Sat-Eve-Post	Life
Watches	Gruen	Ingersoll	Waltham	Bulova	Hamilton
Tooth Paste	Pepsodent	Iodent	Colgate	Teel	Ipana
Soap	Palmolive	Ivory	Lux	Camay	Lifebuoy
Cereal	Quaker Oats	Wheaties	Ralston	Cream of Wheat	Post Toasties
Politics	Communist	Republican	Farm-Labor	Socialist	Democrat
Bread	Wonder	Bond	Jumbo	Jul-Lee-Wright	Koesters
Tires	Goodyear	Lee	Goodrich	Firestone	Fisk
Gum	Wrigleys	Beemans	Dentyne	Beechnut	Black Jack
Radios	Stromberg-Carl	General Elec.	R. C. A.	Philco	Stewart-Warner

TABLE III

DISTRIBUTION OF SUBJECTS ACCORD-
ING TO AGE AND ECONOMIC STATUS

	AGE												
Ec.St.	7	8	9	10	11	12	13	14	15	16	17	18	Total
A	1	3	6	3	3	7	5	6	5	5	0	0	44
B	2	27	31	32	27	22	22	34	38	43	18	10	306
C	1	25	33	37	28	29	39	41	56	42	19	10	360
D	0	11	8	9	7	6	10	8	5	2	2	2	70
?	0	3	5	3	5	6	2	4	1	1	1	1	32
	4	69	83	84	70	70	78	93	105	93	40	23	812

TABLE IV

DISTRIBUTION OF SUBJECTS ACCORD-
ING TO AGE AND NUMBER OF SIBLINGS

No. of Siblings	AGE												
	7	8	9	10	11	12	13	14	15	16	17	18	Total
0	1	12	15	11	7	8	8	13	12	13	3	7	110
1	2	26	28	30	18	22	14	23	32	24	7	4	230
2	1	14	18	18	20	22	17	22	29	20	10	5	196
3	0	8	11	11	10	10	14	13	12	19	7	5	120
4 and over	0	8	11	14	15	8	25	22	20	17	13	2	155
Total	4	68	83	84	70	70	78	93	105	93	40	23	811*

*1 subject's age unknown
 1 subject's number of siblings unknown

TABLE V

DISTRIBUTION OF SUBJECTS
ACCORDING TO AGE AND IQ

	AGE												
IQ	7	8	9	10	11	12	13	14	15	16	17	18	Total
Below 80	0	3	1	0	2	1	1	0	0	0	0	1	9
80–89	0	2	4	10	2	1	5	4	5	1	3	2	39
90–99	0	11	11	13	6	8	11	16	16	12	12	8	124
100–109	0	11	11	13	10	15	15	20	28	36	13	6	178
110–119	1	6	11	12	11	7	17	27	38	29	5	1	165
120–129	0	7	6	5	11	9	17	15	12	7	3	1	93
130–Up	0	5	4	1	5	4	3	5	3	0	1	0	31
?	3	24	35	30	23	25	9	6	3	8	3	4	173
	4	69	83	84	70	70	78	93	105	93	40	23	812*

*1 subject's age not known

TABLE VI

DISTRIBUTION OF SUBJECTS ACCORD-
ING TO IQ AND ECONOMIC STATUS

I.Q.	A	B	C	D	Total
Below 80	0	1	8	0	9
80-89	2	4	26	7	39
90-99	2	33	68	18	121
100-109	6	68	93	11	178
110-119	16	72	64	13	165
120-129	5	46	36	5	92
130 up	3	20	8	0	31
Total	34	244	303	54	635

TABLE VII.   CRITERIA EMPLOYED IN ESTIMATING ECONOMIC STATUS (PERSONAL INTERVIEW)

Criterion	A Economic Group	B Economic Group	C Economic Group	D Economic Group
TYPE OF HOME	Large one-family, 8 or more rooms usually with garage for one and frequently two cars. Usually two or more bathrooms.	Mainly moderate size one-family houses, some of the best two family and duplex homes, and moderately expensive apartment houses.	Small one-family houses fairly well kept, many two-family houses and older, cheaper apartments.	Run down one-family houses, poor two-family and tenements
OCCUPATIONS OF HEADS OF FAMILIES	Executives and successful professional people.	Average professional people and the bulk of the average of better paid white collar jobs. A few highly paid skilled mechanics and craftsmen. Successful retail store owners.	Skilled workers in both trades and factories, police and firemen in many cities, truck drivers and poorly paid white collar jobs. Small retail store managers and owners.	Unskilled labor, unemployed, janitors, and many of the unskilled and poorly paid factory workers. Usually includes all or most of the negro sections.
AUTOMOBILES	90 to 95% own one or more (in the Far West and some parts of the Mid West practically 100%).	60 to 80% own one, a few own two older or less expensive cars.	40 to 70% own one.	20 to 40% (on the west coast about 50%) own a car but frequently an old one 6 to 10 years old.
AUTOMATIC REFRIGERATORS	85 to 100% have one.	70 to 90% have one.	40 to 70% have one.	10 to 30% have one.
TELEPHONE	Almost 100% have telephones in their home.	Between 70 and 90% have a telephone.	A wide range depending on location - 20 to 80%, averaging about 50% for the whole country.	Telephone ownership in some southern cities is almost 0%. Average 10-30%.

TABLE VIII

CHILDREN'S STATED REASONS FOR PREFERENCE*

Reasons for Preference	PRODUCTS																Total
	Automobile	Magazine	Gum	Typewriter	Store	Gasoline	Watch	Cereal	Politics	Tires	Radio	Coffee	Razor	Tooth Paste	Soap	Bread	
Attribute	35	67	75	13	35	10	25	47	8	15	18	8	6	42	43	40	31
Domestic Use	36	20	4	33	43	58	26	27	53	48	51	28	45	46	43	42	38
Personal Suggestion	9	2	1	12	1	4	5	0	1	4	5	1	3	1	0	1	3
Miscellaneous	4	3	4	8	5	3	3	3	6	6	3	3	1	0	0	3	3
Don't Know	7	4	10	18	5	10	16	8	16	7	13	10	10	4	8	4	9
No Preference	7	3	4	10	5	10	10	9	16	10	7	44	30	3	1	4	11
Radio Program	1	0	0	1	0	1	9	5	0	0	1	4	2	1	3	5	2
Printed Material	1	0	0	3	0	1	2	0	0	2	0	0	4	0	1	0	1
Works there	0	0	0	1	6	2	0	0	0	0	1	0	0	0	0	0	1
Other Advertising	0	0	0	1	1	1	1	0	0	6	0	0	0	0	0	0	1
Health	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Not the buyer	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0

*All figures are percents of 271 cases.
Percents in the total column are based on an N of 4336

TABLE IX

PARENTS' STATED REASONS FOR PREFERENCE

Reason for Preference	Coffee	Typewriter	Store	Automobile	Tire	Gasoline	Razor	Watch	Magazine	Tooth Paste	Soap	Cereal	Bread	Gum	Radio	Total
Attribute	37	12	68	50	31	43	28	27	73	71	68	58	91	60	60	782
Radio	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	8
Printed Material	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	23	8	17	15	10	16	20	5	15	17	19	9	13	10	16	213
Work	1	6	4	3	1	6	0	0	1	1	0	0	2	1	2	29
Personal Suggestion	8	2	2	4	2	5	0	2	0	9	3	23	0	2	3	65
Other Advertising	3	1	1	0	0	0	0	1	1	1	1	0	1	0	0	9
Health	0	0	0	0	0	0	0	0	0	4	12	8	1	0	0	25
Not Buyer	1	5	1	6	4	1	3	4	4	1	3	1	2	4	11	33
Miscellaneous	26	4	2	4	1	1	2	4	1	7	3	1	2	4	9	71
Don't Know	12	10	8	18	19	17	45	11	7	5	11	6	3	14	13	199
No Preference	8	74	18	21	53	27	23	24	19	3	4	4	7	29	7	331
Total	121															1315

TABLE X

DISTRIBUTION BY PRODUCT OF CHILDREN'S REASONS
FOR PREFERENCE ACCORDING TO ECONOMIC STATUS*

| Economic Group | | | | | | | | A and B | | | | | | | | |
Reasons	Coffee	Typewriter	Store	Auto	Gasoline	Razor	Magazine	Watch	Tooth Paste	Soap	Cereal	Politics	Bread	Tires	Gum	Radio	Total
Att.	8	16	55	43	10	6	87	32	50	55	61	10	49	14	96	26	618
Radio	6	2	0	2	2	3	1	16	2	7	8	0	10	0	1	2	62
Print	0	6	0	2	0	4	1	4	0	2	0	1	0	4	1	0	25
D. U.	38	49	49	49	81	58	29	25	68	52	33	74	54	69	5	64	797
Work	1	1	5	1	4	0	0	1	0	0	0	0	0	1	0	3	17
P. Sug.	3	12	1	10	6	3	3	8	4	0	0	0	1	7	3	4	65
O. Adv.	0	1	1	0	0	1	0	3	0	0	0	0	0	6	1	1	14
Health	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
N.Buy.	0	1	0	0	0	0	0	3	0	0	0	0	0	0	1	0	5
Misc.	3	9	8	8	7	2	3	4	1	1	2	10	4	12	6	5	85
D.K.	11	23	9	11	8	17	4	22	3	12	13	18	7	9	13	16	196
No Pref	62	12	4	6	14	38	4	14	4	3	13	19	7	10	4	11	225

| Economic Group | | | | | | | | C and D | | | | | | | | |
Reasons	Coffee	Typewriter	Store	Auto	Gasoline	Razor	Magazine	Watch	Tooth Paste	Soap	Cereal	Politics	Bread	Tires	Gum	Radio	Total
Att.	14	19	38	49	17	9	90	35	63	59	64	12	59	26	104	23	681
Radio	6	1	0	0	2	2	0	9	2	1	5	0	2	1	0	0	31
Print	0	2	0	0	2	6	0	1	0	0	0	0	0	1	0	1	13
D. U.	39	40	65	47	75	62	26	44	56	64	39	69	61	60	7	73	827
Work	0	1	10	0	2	0	1	0	0	0	0	0	0	0	0	1	15
P. Sug.	1	20	2	15	5	4	3	6	0	0	0	2	2	4	1	9	74
O. Adv.	0	1	2	1	1	0	0	0	0	0	0	0	0	11	0	0	16
Health	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0	4
N. Buy.	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
Misc.	4	12	6	3	1	2	5	4	0	0	5	6	4	5	4	3	64
D.K.	17	25	9	15	18	8	6	21	9	9	8	22	3	10	13	18	211
No Pref	54	13	3	5	12	42	4	13	5	1	12	24	3	17	6	7	221

*The number of cases for the high economic status is 132, the total column
N is 2112

The number of cases for the low economic status is 135, the total column
N is 2160

TABLE XI

DISTRIBUTION BY PRODUCT OF CHILDREN'S REASONS FOR PREFERENCE ACCORDING TO I.Q.*

Reasons	Coffee	Typewriter	Store	Auto	Gasoline	Razor	Magazine	Watch	Tooth Paste	Soap	Cereal	Politics	Bread	Tires	Gum	Radio	Total
High I.Q. (above 110)																	
Att.	3	12	35	32	6	6	70	20	38	38	49	8	44	10	78	13	467
Radio	3	1	0	2	2	1	1	7	2	3	7	0	3	0	0	2	34
Print	0	3	0	0	1	6	0	2	0	0	0	0	0	5	0	1	18
D.U.	31	34	37	36	60	48	19	29	48	47	23	54	40	45	1	54	606
Work	0	1	8	1	0	0	0	0	0	0	0	0	0	0	0	1	11
P.Sug.	1	11	1	9	4	1	0	8	3	0	0	0	1	4	1	3	47
O.Adv.	0	1	1	0	0	0	0	1	0	0	0	0	0	7	0	0	10
Health	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
N.Buy.	0	1	0	0	0	0	0	3	0	0	0	0	0	0	1	0	5
Misc.	2	14	6	5	3	1	2	2	0	0	2	7	5	10	4	4	67
D.K.	4	12	9	10	10	6	4	19	5	10	9	16	3	10	9	10	146
No Pref	54	8	1	3	12	29	2	7	2	0	7	13	2	7	3	5	155
Low I.Q. (below 110)																	
Att.	13	15	40	39	14	6	68	30	48	54	48	9	41	19	83	22	549
Radio	7	1	0	0	1	3	0	10	0	2	3	0	7	0	0	0	34
Print	0	3	0	1	1	3	1	1	0	0	0	0	0	0	0	0	10
D.U.	34	38	59	44	64	52	30	32	57	51	39	65	53	61	9	60	748
Work	1	1	5	0	6	0	0	0	0	0	0	0	0	1	0	1	15
P.Sug.	2	18	1	11	3	4	5	6	1	0	0	0	1	6	2	7	67
O.Adv.	0	1	2	1	0	1	0	1	0	0	0	0	0	5	0	0	11
Health	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
N.Buy.	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
Misc.	4	5	2	3	3	2	4	4	1	1	5	4	3	3	3	3	50
D.K.	19	22	7	13	14	14	5	20	6	8	8	16	7	7	14	16	196
NoPref.	38	13	2	6	12	33	5	12	5	2	12	24	6	16	7	9	202

*The number of cases for the high I.Q. group is 98, the total column N is 1568
The number of cases for the low IQ. group is 118, the total column N is 1888

TABLE XII

DISTRIBUTION BY PRODUCT OF CHILDREN'S REASONS FOR PREFERENCE ACCORDING TO ANALYSIS— PREFERENCE AGREEMENT.

	Watch A	Watch D	Magazine A	Magazine D	Razor A	Razor D	Gasoline A	Gasoline D	Automobile A	Automobile D	Store A	Store D	Typewriter A	Typewriter D	Coffee A	Coffee D
Att.	64	4	166	13	12	2	93	0	93	0	97	6	27	8	22	1
Radio	25	0	1	0	5	0	2	0	2	0	0	0	3	0	12	0
Print	5	0	1	0	11	13	96	0	97	0	0	0	7	1	0	0
D.U.	62	9	53	2	108	0	1	1	1	0	111	3	78	10	75	2
Work	1	0	1	0	7	0	24	0	24	0	15	0	1	0	1	0
P.Sug.	14	0	5	0	1	0	1	0	1	0	3	0	29	4	4	0
O.Adv.	3	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0
Health	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H.Buy.	5	5	0	0	3	1	0	0	0	0	0	0	2	1	0	0
Misc.	6	2	7	1	0	6	11	0	11	0	13	1	20	1	7	1
D.K.	37	5	10	0	20	0	25	1	26	1	18	1	34	15	29	0
NoPref.	26	0	8	0	79	0	11	0	11	0	7	0	26	0	114	0
Total	248	20	252	16	246	22	266	2	268	0	257	11	228	40	264	4

	Radio A	Radio D	Gum A	Gum D	Tires A	Tires D	Bread A	Bread D	Politics A	Politics D	Cereal A	Cereal D	Soap A	Soap D	Tooth Paste A	Tooth Paste D
Att.	46	3	108	12	34	6	107	3	18	3	126	0	112	4	111	3
Radio	2	0	1	0	5	1	13	0	0	0	12	2	7	1	4	0
Print	1	0	1	0	141	9	0	0	1	0	0	0	2	0	0	0
D.U.	126	12	110	4	1	0	109	4	141	1	70	0	115	0	120	4
Work	4	0	0	0	9	2	0	0	0	0	0	0	0	0	0	0
P.Sug.	11	2	4	0	17	0	3	0	1	0	0	0	0	0	4	0
O.Adv.	1	0	1	0	0	0	0	0	0	0	4	0	1	0	0	1
Health	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
H.Buy.	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc.	7	1	9	1	17	0	8	0	11	5	7	0	0	0	1	0
D.K.	29	6	25	2	16	2	11	0	36	7	22	0	21	0	10	2
NoPref.	17	0	10	0	27	0	10	0	43	0	25	0	4	0	8	0
Total	244	24	252	16	247	21	261	7	251	17	266	2	263	5	258	10

TABLE XIII

DISTRIBUTION OF REASONS FOR PREFERENCE ACCORDING TO WHETHER THE
SUBJECTS SATISFIED OR DID NOT SATISFY THE CRITERION OF AWARENESS *

	Coffee		Typewriter		Store		Automobile		Gasoline		Razor		Magazine		Watch	
	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F
Att.	13	10	21	14	74	19	91	2	85	2	5	11	150	29	36	32
Radio	8	4	0	3	0	0	2	0	4	0	0	5	1	0	3	16
Print	0	0	4	4	0	0	2	0	2	0	4	7	1	0	9	2
D. U.	45	32	36	52	87	27	96	1	151	6	24	97	48	7	29	42
Work	1	0	1	0	11	4	1	0	6	0	0	0	0	1	1	0
P. Sug.	2	2	13	20	2	1	24	0	11	0	1	6	5	0	9	6
O. Adv.	0	0	1	1	2	1	1	0	1	1	0	1	0	0	2	1
N. Buy.	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	3
Misc.	3	4	15	6	11	3	11	0	8	0	1	3	6	2	2	6
D. K.	15	15	16	33	17	2	26	0	25	1	5	21	9	1	23	19
No pref	71	43	7	19	6	1	11	0	26	0	15	64	6	2	5	21

	Tooth Paste		Soap		Cereal		Politics		Bread		Tires		Gum		Radio	
	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F
Att.	90	24	110	6	124	2	17	4	82	27	16	24	120	80	24	25
Radio	4	0	7	1	14	0	0	0	7	6	0	1	0	1	2	0
Print	0	0	2	0	0	0	1	0	0	0	4	2	0	1	1	0
D. U.	99	25	109	6	70	0	126	16	87	26	73	57	8	6	55	83
Work	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
P. Sug.	4	0	0	0	0	0	1	1	3	0	7	4	2	2	5	8
O. Adv.	0	1	0	0	0	0	0	0	0	0	6	11	0	1	0	1
Health	0	0	1	0	3	1	0	0	0	1	0	0	1	0	0	0
N. Buy.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Misc.	1	0	1	0	7	0	10	6	5	3	12	5	6	4	1	7
D. K.	9	3	20	1	22	0	29	14	8	3	9	9	14	13	7	28
No pref	6	3	4	0	25	0	28	15	7	3	17	10	5	5	5	12

* P + F for each product = 268

APPENDIX II

MATERIALS USED IN THE STUDY

Lester P. Guest, Doctor of Philosophy, 1941
Major: Psychology
A Genetic Study of Brand Loyalty
Directed by Dr. John G. Jenkins
Pages in thesis, 93   Words in abstract, 558

This study was designed to test the hypothesis that brand loyalty
is present in children and to study its determinants if loyalty is found
to exist. Data also were collected on the development of brand aware-
ness.

The subjects were 313 children ages 7 to 18 who were tested and
interviewed in selected Maryland schools. They were all presented with
an awareness test and a preference questionnaire. Immediately after the
completion of the preference questionnaire, one third of the respondents
were selected at random for personal interviews during which they were
asked their reasons for brand preference. A personal interview with the
mothers of these children was also obtained in order to gather informa-
tion as to the brands used for 15 different products and the reasons
for their purchase. The results were related to the standard variables
of age, economic status, IQ, and number of siblings in the family.

Awareness of brand names was found to increase with an increase in
age, but awareness was not related to number of siblings. Within limits,
awareness increased as both economic status and IQ increased but there
was indication of the existence of a minimum economic level below which
a disproportionate number of children failed to satisfy the criterion of
awareness. A rough ranking of the order in which the brands for differ-
ent products become known was obtained.

Further data indicated that although brand loyalty does not exist
for all brands of a product in general, loyalty does exist for specific

brands in about 50% of the cases, and furthermore, that the brand preference at age 8 compared with ages 17 and 18 combined, irrespective of fluctuations in the interim, was the same in about 70% of the cases.

A rough ranking of the order of importance of various reasons for preference was obtained which remained practically constant for all comparisons. In general, no difference in the percentage giving each of the reasons was found when either economic group or IQ was dichotomized into a lower and higher group, and further, the percentage giving each of the reasons did not change with age.

A comparison between those who knew the name they preferred with those who did not, resulted in no differences except that the latter group tended to respond with more don't know answers. A further comparison between those that knew four or more of the brands for a product with those who did not, showed that the former group tended to name attributes of the product as a reason for preference whereas the latter group tended either not to know the reason for their preference or to indicate no preference.

The major conclusions from this study are:

1. An increase in age is accompanied by an increase in awareness for commercial brands.

2. The main relationships found indicate that, within limits, an increase in IQ or economic status is accompanied by an increase in awareness.

3. Brand loyalty was found to exist for specific brands in about 50% of the brands studied. However, the amount of loyalty existing was found to be a function of the method of measurement.

4. An analysis of reasons for preference resulted in the establishment of a rank order of importance of reasons for preference.

5. Neither economic status, age, nor IQ is related to the kind of reason

given, but the degree to which the child is familiar with brands is related to the type of reason given.