PREDICTORS OF TELEVISION VIEWING AMONG JUNIOR HIGH SCHOOL STUDENTS

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ABSTRACT

PREDICTORS OF TELEVISION VIEWING
AMONG JUNIOR HIGH SCHOOL STUDENTS

by Brenda Dervin

The four purposes of this study were: 1) to replicate some previous work on correlates of frequency of child television viewing; 2) to include certain variables which have been partly or wholly overlooked in past work; 3) to extend the analysis to a multivariate method; and 4) to specifically look at the types of relationships which exist between the criterion variable and its predictors.

Respondents for this study were 252 seventh and eighth grade boys and girls -- the entire junior high school class in a suburban school system outside Milwaukee, Wisconsin. The data used here were drawn from a larger survey tapping mass media behaviors and family life style patterns. Survey questionnaires were self-administered in regular classes during the 1964-65 school year.

From the available data, 63 variables were selected -- 62 predictors and the criterion. Among the major results and conclusions of the study were the following.

1) Of the 62 predictors, 21 were significantly related (by X^2 and/or r analyses) to the criterion variable.

2) No single variable alone explained a great deal of variance in the criterion. Maximum variance explained by any one variable was 18% with a curvilinear model, 9% with a linear model. This result suggests the need for multivariate approaches.

3) Variables were subdivided into seven categories and multiple Rs were run within categories to determine which variables contributed significantly to variance explained, assuming a linear model. The "best" within category predictors were: a) parent media use -- amount of parent TV viewing and variety of parent radio use; b) respondent media use -- amount of respondent radio use, variety of respondent radio use, variety of respondent book preferences, frequency of respondent movie attendance, and medium respondent would miss most; c) family cohesiveness -- none; d) community integration -- none; e) self-orientation -- respondent outside home employment and respondent math knowledge level; f) consumer orientation -- respondent attitude toward credit and variety of respondent spending; and g) demography -- occupational prestige.

4) Assuming a linear model, the best category of predictors (in terms of variance accounted for in the criterion) was respondent media use (18%). Second best was parent media use (14%), followed by self-orientation and consumer orientation (8% each). Demography accounted for 6%. The multiple Rs for family cohesiveness and community integration were not significant. One of the better predictor categories -- consumer orientation -- included almost all new variables -- i.e. variables not looked at as predictors of TV viewing in prior research.

5) When the "best" within category predictors were pooled in one multiple R equation, the resulting R was .50, accounting for 25% of the variance in the criterion. When all 62 vairables, regardless of category, were included in one multiple R equation, the resulting R was .65, accounting for 42% of the variance.

6) A comparison of the linear r with the curvilinear Eta correlations for the relationship of each predictor to the criterion indicated that the curvilinear model fit the data better.

7) A comparison of the current results with prior research suggested that certain assumptions derived from early child-television research need re-examination, particularly in light of today's high media saturation environment. As an example, the present results offered little support for two often-used generalizations about television viewing -- the frustration hypothesis and the functional displacement hypothesis.

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By

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CHAPTER I

INTRODUCTION

Rationale

Ever since television burst upon the U.S. scene in the 1950's, the attention of researchers, critics, and the public has been focused on possible effects of the new, imminently attractive, and pervasive medium on children. Generally, attention to the medium has been rooted in a concern for possible detrimental effects. Does viewing television ruin eyesight? Does it cause children to withdraw from real life concerns? Does it lead to increased aggression, cause juvenile delinquency? Does it debase tastes?

While the critics and researchers have been busy looking for effects, the public has been busy accepting the new medium. In a true success story of the 20th century, the proportion of U.S. homes with television sets rose from 7% in 1950 to 82% in 1957 (Witty 1963, Bogart 1958). By 1960, saturation had reached 90% (Bogart 1962) and, in 1965, reports of 94 to 100% saturation were common. (Witty 1966, Rainwater, Coleman, and Handel 1959, Huber 1965.) Television continues to be the major leisure time activity with the typical family television set operating 5 hours a day, the average man viewing for 2 1/2 hours, average woman for 3 1/2 hours, and average child for 4 hours (Bogart 1962).

While the popularity of television rose with relative ease, the search for effects did not. Indeed, the search might well be summarized by saying that the more researchers looked for effects, the less they found. In 1957, Meyersohn noted that few of the hundreds of studies on television and children had "succeeded in providing much of consequence." (Meyersohn 1957) As late as 1964, Schramm asserted that one should not expect "too much, too soon, and too specifically" from effects research (Schramm 1964).

In delineating the reasons for the lack of clarity offered by effects research, there seems to be general agreement in pointing to the failure of the "hypodermic model" of communications research. Schramm, White, Klapper and others have all pinpointed the evolution of research on the mass media from a "direct effects" model to the currently accepted phenomenalistic, functional, situational, or uses and gratifications approaches (Schramm 1962, White 1964, Klapper 1960, Katz and Foulkes 1962, Bauer 1964).

While once the mass media researcher asked "what do the mass media do to people", today he more often asks "what do people do with the mass media?" While once the researcher viewed the individual child in isolation from his family, social background, and environment, today the researcher looks to these "situational and contextual" elements for explanation of the television-child interaction. While once the researcher was concerned primarily with measuring effects almost totally in terms of source expectations, today he looks to

consequences which may be entirely independent of source intent. Klapper's generalization that mass communication ordinarily does "not serve as a necessary and sufficient cause of audience effects but rather functions among and through a nexus of mediating factors and influences" best sums up the result of the evolution (Klapper 1960, p. 8).

A major consequence of this newer approach to media research is that the task is now immensely more complicated. The hypodermic model in its simplicity failed to yield clarity while the functional model in its complexity must be concerned with an enormous number of variables and their interactions in order to begin to yield clarity.

In accepting a more functional approach to their subject, researchers have spread their concern from analysis of aggregates or demographic characteristics (White 1964) to concern for the ability, maturity, personality, peer group relations, and family relations of the child (Himmelweit, Oppenheim, and Vince 1958, Riley and Riley 1955, Bailyn 1959, Maccoby 1964, Schramm, Lyle, Parker 1961).[1]

Along with the emergence of the functional approach, there has been an increasing awareness of the conditions necessary for developing causality statements in social science research. While once the researcher was quite ready to infer effect statements from field

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[1]Two of these references -- Himmelweit, Oppenheim, and Vince (1958) and Schramm, Lyle, and Parker (1961) will be referred to extensively in Chapters I and II. All further citations of these two references will be made simply to Himmelweit (1958) and Schramm (1961).

research, today researchers are careful in emphasizing that their field studies on the relationship of television and children are correlational in nature. After careful analysis of the methods of looking for the effects of television, Maccoby concluded that only the laboratory experiment can come close to causality requirements. She noted that even precise before-after field surveys using matching techniques do not offer true randomization, so causal connections cannot be pinned down from such research (Maccoby 1964).

As a result of these two trends -- the acceptance of the functional approach to research and the awareness of the limitations of field research -- the current state of affairs in television and children research seems to include:

1) an acceptance of non-experimental field research as a search for "correlates" of media use rather than "effects" of media use;
2) an acceptance of the need to look at a number of areas of the child's life in order to more fully understand and describe the child-television interaction; and
3) a call for increased experimental work from which "effect statements" may be derived.

We find Schramm summarizing his intensive review of the past television-children research by saying that the classic field surveys "have gone about as far as it is possible to go with survey methods. . . ." (Schramm 1964, p. 7). Yet, rejection of the "correlate" approach to research on television and children may be a bit too hasty. While the

correlational-type approach will not yield effect statements, the possibilities of the approach have not been tapped to their fullest extent.

Most of the past work, while acknowledging a correlational approach, has been very much rooted in a search for effects. Findings on television and children have come mainly from studies concerned with the differences between matched respondents in television and non-television households. The two classic studies -- Himmelweit (1958) and Schramm (1961) -- were based on a concern for the effects of the introduction of television although both did look somewhat at correlates of amount of viewing.

While there is a great deal of research on television and children only a small subset is directly relevant to the television environment of the 1960's with its almost 100% saturation of TV households. The absence-presence of viewing is almost no longer relevant. White, Edelstein and others have made references to the need to take a new look at audience composition and utilization of media in terms of the current media environment. (Edelstein 1966, White 1964) They suggest that once well-supported principles of mass media behavior like the "all or none principle" (first posited by Lazarsfeld and Kendall 1948) may no longer hold in today's context of media overload. One recent factor analytic study of media exposure patterns of teenagers, for example, suggests that once rather clear-cut relationships between various aspects of media usage may no longer be quite so clear. (Troldahl and Costello 1966).

Another reason the correlational approach still has merit is that many crucial variables have been completely or partly ignored in the past work. For example, we find that family consumer behaviors have been rarely included as possible correlates of child television behaviors. Yet, with one of the main family functions being its consumption role in society, this seems a lucrative area in which to extend the television-children focus. Chapter II more fully details variables which have been partly or wholly overlooked in the past work.

A third reason for not yet eulogizing the correlational approach to television and children is the almost total absence in the past work of multivariate analytic approaches. Himmelweit (1958) and Schramm (1961) illustrate the common use of contingency analysis of frequencies and percentages. While researchers have developed lists of what they consider to be the most important predictor variables of television behavior these have usually been derived from analyses of one predictor variable at a time and developed into a kind of jigsaw puzzle portrait. An exception is Bailyn (1959) who used a multivariate technique to arrive at a statement of the four variables which accounted for approximately 47% of the variance in amount of exposure to the pictorial media (comics, films, television).

Multivariate analysis techniques offer several interesting possibilities for the area of television and children. First is the obvious advantage of using techniques which detect spurious correlations and isolate interactions. Second is the ability of these techniques to handle the larger numbers of variables demanded by the

more functional analysis of media behaviors. Third is the parsimony offered by techniques which reduce a large set of variables down to the set most important in terms of variance accounted for.

Related to the lack of use of multivariate approaches, the past work on television and children also shows an almost total absence of concern with the exact nature of the relationship of predictor variables to the criterion media behavior. Most predictions of relationships have been stated in a linear fashion. Further, even contingency analysis which can tap curvilinear relationships has been essentially used with dichotomous classification of the criterion television viewing behavior. This makes detection of curvilinearity impossible. The dichotomization of the criterion variable was a necessary constraint for those researchers who, in the past, looked at the absence and presence of television. However, it is rare to find any more than two categories even when researchers were looking at amount of television viewing. Schramm (1961), for example, used simply high and low television viewing categories. An exception is the Himmelweit (1958) study in which three categories of television viewing were used.

In summary, then, the correlational approach to studying the relationship of television and children seems to still have merit mainly because it has not been utilized to its fullest. Much of the past research does not apply to today's 100 per cent television saturation. Many crucial variables have been partly or wholly overlooked. Multivariate analysis techniques have not been used, and specific attempts to look at the nature of the relationships between

predictor variables and the criterion media behavior have not been made.

With this background, the present study aims to look at correlates of the amount of television viewing by junior high school students. The purposes of this study are:

1) To replicate much of the past work on correlates of frequency of child television viewing;
2) To go beyond a replication by including some variables which have been partly or wholly overlooked in past works;
3) To extend the analysis to a multivariate method; and
4) To specifically look at the types of relationships which exist between the criterion variable and its predictors.

Generalizations from prior research

It seems most efficient at this point to draw together the most parsimonious generalizations from across the literature and reserve specific citations for supporting the hypotheses formulated in Chapter II. The generalizations stated in this section come primarily from the conceptual discussions of Himmelweit (1958), Schramm (1961), Campbell (1962), Maccoby (1964), and Klapper (1960).

A thread seems to tie the various recent approaches to predicting amount of television viewing together. This thread might best be called the functionalist's agreement to look at the child as an integrated human being acting in a reasonable fashion within the context of his environment. We find such opening generalizations as

"the mass media exist because they are useful in meeting human needs and that TV has come into use ... because it meets some of these needs better than any other alternative." (Schramm 1961, p. 74). This unifying viewpoint ties together the more firm generalizations derivable from past work.

Most writers have phrased their generalizations in terms of effects rather than in terms of relationships. Thus, one finds reference to the direct and indirect effects possible from television in Maccoby (1964), or a list of possible effects in terms of physical, emotional, cognitive, and behavioral effects in Schramm (1961), or to "displacement of time effects" and effects of content in Himmelweit (1958). The generalizations stated below have rephrased "effect" notions into "correlational" notions.

A good deal of the prior research from which these generalizations are derived have dealt with both the quantity and quality of a child's television viewing behavior. Since the present study deals only with amount of television viewing, findings and generalizations are derived from past work only when relevant to the quantity of viewing. We have derived the following five generalizations:

1. The parental imitation generalization: While not explicitly stated as such in past literature, an underlying theme of the results might be framed: "children tend to do what their parents do, all other things equal." Thus, consistently researchers have found that one of the best predictors of any child's media behavior is the media behavior of his parents. Three major researchers all concur that if parents

view a lot, children tend to do likewise; if parents view moderately, children tend to also. (Schramm 1961, Maccoby 1964, Himmelweit 1958).

A logical consequence of the above generalization is that a number of demographic characteristics which predict parent television behavior predict the child's behavior as well. Rather consistently the findings agree that the occupational level and education of parents predicts the amount their children view (Bailyn 1959, Schramm 1961). Specific findings on social class will be offered later but the variable is offered now as an example of the class of readily tapped variables which might be termed attributes of parents which predict the child's behavior.

2. The demographic attributes of the child generalization: Again this generalization has not been stated explicitly in the prior research. It suggests that there are a number of good predictors of television viewing which are not accounted for by parental behavior or attributes nor strictly by generalizations 3, 4, and 5 below. For example, the child's age is often found to be strong predictors of various media behaviors. In terms of television viewing, findings rather consistently concur that the peak television viewing time for children is roughly from the ages of 11 to 13 (Schramm 1961).

3. The functional displacement generalization: This generalization was first framed by Himmelweit (1958) and has structured numerous approaches since. In essence, the generalization is that a child must choose between activities and that he will sacrifice in lieu of television those activities which satisfy the same needs as television but do so less effectively. He will not

sacrifice, however, those activities which serve needs different than those served by television. The term "functional" is essential in the generalization as what is "functional" to one group of children may not necessarily be for another. As an example, it is a rather consistent finding that, movie attendance is sacrificed for television viewing (Himmelweit 1958, Schramm 1958 and others). However, when a child reaches adolescence the movie theater becomes a meeting place for friends and the displacement phenomenon no longer holds.

One problem with the displacement generalization is that it has most often been tested with a criterion variable of absence vs presence of television in the home. It is difficult to make the leap from a finding in that context to a prediction that would hold for amount of television viewing. It seemed quite clear that when families purchased television sets movie viewing dropped off. However, after years of television ownership, it is not so clear that the person with a high desire for the kind of need fulfillment offered by both television and movies will fulfill that need primarily through television.

4. The frustration generalization: First stated by Maccoby (1951) this generalization states that the more frustrated a child is, the more time he will spend in front of his television set. The usual indices of frustration have been the degree of the child's integration within both his family and his peer group social systems. In a theoretical discussion of the use of mass media as escape, Katz and Foulkes (1962) point to the impressive evidence supporting the notion that alienation, deprivation, and frustration leads to increased exposure.

5. The information void generalization: While more directly related to the quality of a child's viewing rather than the quantity, this generalization is relevant to some aspects of the present study. Posited first by Himmelweit (1958), the generalization states that the conditions under which television content is likely to have an effect on a child's values and outlooks are: a) if the values and views recur over and over again in TV content; b) if the form of presentation is dramatic; c) if the content is linked with the child's needs and interests; d) if the child is uncritical and attached to the medium; and e) if the child is not presented through peers or relatives with a standard against which to assess the views offered on television. Thus, Himmelweit found that female adolescent television viewers were more concerned than matched non-viewers with the problems of growing up and marrying. From this generalization, one might reason that since television content in the United States tends to be somewhat of the same ilk, that there should be some relationship between the amount a child views television and the child's attitudes on topics which television emphasizes but parents and peers rarely talk about.

The five generalizations above form a pattern which agrees with the functionalist's basic view of predicting the child's behavior within the context of his environment. In essence, the generalizations say that when predicting the amount a child views television, the research can account for a certain amount of variance by looking at the demographic characteristics of the child's parents and at the parent's media behavior. Another portion of the variance can be

accounted for by looking at the child's own demographic characteristics and his other media behaviors (which, not surprisingly, are often a close replica of the media behaviors of his parents). After using these rather efficient approaches (efficient in the sense that the variables involved are relatively easy to tap), the further differences between children must be accounted for by looking at the values and attitudes of the child and the child's integration within his family unit and within his peer group.

Classification of variables

Researchers in this area increasingly agree that the greatest explanatory results are yielded by surveys which seek information on a variety of dimensions of a child's life. Thus, Himmelweit, in describing television effects, had to time and again "consider the ways these effects differed according to the ability, maturity, background, and personality of the children concerned." (1958, p. xiv). Essentially, there is agreement that a sizeable number of variables are needed to predict the child's television behavior. With this in mind, the present study deals with a large number of predictor variables, 62 in all.

With such a large number of predictors, some efficient method of classifying the variables is necessary. The 62 predictor variables tapped in this study were grouped into seven categories on the following criteria:

1) Agreement with the methods used to group variables in past research. It has been rather standard procedure in past work to group attributes of the child's media use as a separate category of variables. Other consistently used categories have included: parent media use, family integration, community integration, personal expression (e.g. hobbies), and demography. These are essentially the categories used for the present study.

2) Facilitation of the formation of hypotheses. A second criterion in the classification of variables used here is to group together variables for which predictions form a unified whole. For example, past literature suggests that predictions about the relationship of television viewing to family integration may all essentially be derived from the frustration hypothesis. When a group of variables seemed to easily fall into such a unified category, this advantage was utilized.

3) Concern for the number of variables within each category. Since one of the purposes of the present study is to utilize a multivariate analysis as well as a variable-by-variable prediction method, an effort was made to keep the number of variables within each category large enough so that multivariate analysis could be utilized both within variable categories and then across the entire set of 62 predictors.

Based on the above criteria, the 62 predictors in this study were organized in seven categories: 1) parent media use; 2) respondent media use; 3) family cohesiveness; 4) community integration; 5) self orientation; 6) consumer orientation; and 7) demography. The specific

rationale for each category is in Chapter II. Throughout this report, these seven categories are used as a means of organizing the statement of hypotheses, findings, and implications.

CHAPTER II

HYPOTHESES

In review, the purposes of this study are: 1) to replicate much of the past work on correlates of frequency of child television viewing; 2) to go beyond a replication by including some variables which have been partly or wholly overlooked in past work; 3) to extend the analysis to a multivariate method; and 4) to specifically look at the types of relationships which exist between the criterion variable and its predictors. Since very little of the available work in this area has attacked purposes 3 and 4, formal hypotheses will be stated only for purpose 1 and 2.

The stage for hypotheses might best be set by a brief review of the general television behavior of children who are around the ages of 11-14. Past work suggests that these respondents are at the peak of their television viewing time -- viewing some 20 or more hours a week (Schramm 1961, Witty 1963, Himmelweit 1958, Maccoby 1963). Findings also agree that television is the dominant medium in their lives (Baxter 1960, Maccoby 1964, Schramm 1961). However, this is also the age range within which children begin to develop adult media use patterns. As Schramm put it: this is "the time near the beginning of the teens when adult patterns begin to replace childish ones and spectacular changes in media behavior occur." (1961, p. 117)

Within this context, hypotheses for this study are stated in terms of the seven variable categories outlined in Chapter I.

Respondent perceptions of parent media use

The first category includes variables tapping the media behaviors of the respondent's parents. An impressive array of past research shows that one of the strong predictors of the child's own behavior is the behavior of his parents (Schramm 1961, Himmelweit 1958, Maccoby 1964, Bailyn 1959).

Derivation of hypotheses for this category of variables involves a combination of both the parental imitation and functional displacement generalizations outlined in Chapter I. A prediction may be deduced directly from the parental imitation generalization that the amount of a child's viewing will reflect the amount of his parent's viewing. When dealing with other media behaviors (e.g. radio, movies) a two step prediction is involved. First, the displacement generalization is used to predict how the parents' amount of television would relate to other media behaviors of the parents. Then, if the parental imitation hypothesis holds, one would expect the child's behavior to again mirror that of his parents.

Amount of parental television viewing. Schramm (1961), Himmelweit (1958) and Maccoby (1964) all concur that the amount of parental television viewing is one of the strong predictors of the amount of a child's viewing. Hypothesis 1 is:

H1: Frequency of parental television viewing will be positively related to frequency of child television viewing.

Variety of parental television viewing. Few prior studies have looked at variety of parental viewing as a predictor of amount of child viewing. However, logic would suggest that greater variety is, to some degree at least, related to greater quantity. Thus, hypothesis 2 is:

H2: Variety of parental television viewing will be positively related to frequency of child television viewing.

Number of television sets in household. Again, none of the literature cited here has included this as a predictor variable but logic would suggest that the family owning more television sets places more emphasis on television as an activity. Thus, hypothesis 3 is:

H3: Number of television sets will be positively related to frequency of child television viewing.

Amount of parental radio listening. None of the past work reviewed here looked specifically at the relationship between parental radio use and child television behavior. However, the bulk of past work agrees that with the introduction of television, radio listening suffered for both adult and child television viewers (Coffin 1955, Abrams 1956, Maccoby 1951, Campbell 1962, Schramm 1961, Himmelweit 1958). The relationship of amount of viewing to amount of radio use is not quite so clear. Parker (1960) reported a non-significant relationship as did Troldahl and Costello (1966). Bailyn (1959)

however, found a small but significant negative correlation between the two variables. In view of this conflict in evidence, the prediction for this variable is based on a logical inference from both the functional displacement and parental imitation generalizations outlined in Chapter I. These generalizations suggest that radio use should be displaced, to some degree at least, by increasing television usage and that children should imitate their parents in these media behaviors. Thus hypothesis 4 is:

H4: Amount of parental radio use will be negatively related to frequency of child television viewing.

Variety of parental radio use. Few past studies have looked specifically at this variable in relation to child television usage. In their comparisons of television vs non-television children, both Schramm (1961) and Himmelweit (1958) found that radio became a more specialized medium in television households. While the leap from the dichotomous television vs no television situation to actual amount of viewing is tenuous, these findings suggest hypothesis 5:

H5: Variety of parental radio use will be negatively related to frequency of child television viewing.

Number of newspapers subscribed to. Again, none of the work cited here has looked at the relationship of parental use of the print media to child's use of television. However, considerable prior work has looked at the relationship of adult print media use to adult television use and child print media use to child television use. The findings fairly consistently agree that, with the introduction of television, some aspects of viewer reading suffered (Belson 1959,

Coffin 1955, Campbell 1962, Himmelweit 1958, Bailyn 1959, Schramm 1961, and Parker 1963). The reduction appeared heaviest for books and magazines but affected some aspects of newspaper reading. However, several trend studies indicated that the difference between television vs non-television users tended to disappear over time. Fewer studies have looked specifically at the relationship between amount of television viewing and use of the print media. For use of newspapers, the findings conflict. Westley and Severin (1964) found a non-significant relationship between adult time spent on television and time spent on newspapers while Himmelweit (1958) found that television viewing related negatively to newspaper reading for their children respondents. Despite some contradictions, hypothesis 6 is:

H6: The number of newspapers subscribed to by parents will be negatively related to frequency of child television viewing.

Number of magazines parents read. Here again evidence is unclear. Himmelweit (1958) found a tendency for magazine reading to suffer with increasing amounts of viewing. The television vs no television comparisons (as indicated in support for hypothesis 6) generally agreed that magazine reading decreased with the introduction of television. Thus hypothesis 7 is:

H7: Amount of parental magazine reading will be negatively related to frequency of child television viewing.

Parental sources of news. None of the literature cited here has looked at the relationship between parental sources of news and amount of child television viewing. However, other work in the general area of media credibility and media perceptions suggests that perceptions of major news sources is related positively to amount of media use (Carter and Greenberg 1965, Westley and Severin 1964). Thus, hypothesis 8 is:

> H8: Children who perceive their parents' major source of news as television will be more frequent television viewers than children who perceive their parents' major news source as a medium other than television.

Number of phonographs owned. None of the television use studies cited here have looked at phonograph usage as a predictor variable. The only support available comes from consumer studies (such as Huber 1965, Caplovitz 1963) that indicate that families that have gone in debt for television sets have very often also done so for phonographs. On the basis of this slim evidence, hypothesis 9 is:

> H9: Number of phonographs owned will be positively related to frequency of child television viewing.

Respondent media use

The second category of variables treated in this study taps the respondent's own media behaviors. Most category schemes developed by researchers have a class of this sort (e.g. Schramm 1961, Himmelweit 1958).

Predictions within this category have been derived mainly from the functional displacement generalization, stating that other activities will be sacrificed in lieu of television if they serve the same needs as television but do so less well.

Amount of respondent radio use. Support for a prediction here is essentially the same as that offered for hypothesis 1 stated on page 18. Hypothesis 10 is:

> H10: Amount of respondent radio use will be negatively related to frequency of television viewing.

Variety of respondent radio use. Again, support is essentially the same as that offered for hypothesis 2 stated on page 18. Hypothesis 11 is:

> H11: Variety of respondent radio use will be negatively related to frequency of television viewing.

Variety of respondent newspaper use. Most of the prior work has looked at another dimension of newspaper usage, namely time spent on newspaper reading. The evidence is fairly well summed up in support of hypothesis 6 stated on page 20 on parental newspaper use -- newspaper reading suffered with the introduction of television but the relationship of actual newspaper use to time of viewing is not clear. Schramm (1961) further suggests that with junior high school age children, at least, newspaper usage is just beginning to expand so variance on the variable is restricted. This evidence suggests hypothesis 12:

H12: Variety of respondent newspaper use will be negatively related to frequency of television viewing.

Number of magazines respondent reads. This variable is also bothered by lack of support and conflicting evidence as noted in the discussion preceding hypothesis 7 stated on page 20 on parental magazine use. Despite the conflict, the prediction on respondent magazine use agrees with that on parent magazine use. Hypothesis 13 is:

H13: Number of magazines the respondent reads will be negatively related to frequency of television viewing.

Variety of respondent book preferences. As with the other print media use variables, evidence here is unclear. However, in predicting the relationship of book reading to amount of television viewing, several researchers have found negative relationships between the quantitative dimensions of both variables (Himmelweit 1958, Bailyn 1959) while others have found non-significant relationships. Parker (1963) explained the lack of significance in terms of the displacement generalization which suggests that television viewing should displace only certain kinds of book reading, namely fiction which fulfills the same fantasy gratification function. While the bulk of evidence suggests a negative relationship between amount of book reading and amount of television viewing, interestingly the only finding available for the variable -- variety of respondent book preferences -- suggests a positive relationship. Himmelweit (1958) found (in her absence vs presence of television viewing situation) that television widened the reading tastes of viewers. While making the leap from this finding

to amount of television viewing is, perhaps, tenuous, hypothesis 14 is:

H14: Variety of respondent book preferences will be positively related to frequency of television viewing.

Respondent preference for comics. Evidence here is clearer than for the other print media. Parker (1961), Himmelweit (1958), and Bailyn (1959) all found a positive relationship between amount of comic book reading and amount of television viewing -- a relationship that is particularly strong for addict television viewers. Thus, hypothesis 15 is:

H15: Respondent preference for comics will be positively related to frequency of television viewing.

Respondent library use. This variable has received attention mainly from Parker (1963) and Bogart (1958). In his absence vs presence of television analysis, Parker reported that television displaced library fiction circulation mainly but that library use did decrease generally. Again, the leap to a prediction for amount of television viewing is tenuous. However, on the basis of the above evidence, hypothesis 16 is:

H16: Respondent library use will be negatively related to frequency of television viewing.

Frequency of respondent movie attendance. Most of the evidence here applies to the absence vs presence of television situation and generally agrees that movie attendance was hard hit by the introduction of television (Coffin 1955, Campbell 1962, Belson 1959, Abrams 1956, Maccoby 1951). However, Himmelweit (1958) emphasized that, for

teenagers, television should not functionally replace movies as the movie theater becomes an arena for social interaction at this age. While that finding might suggest a non-significant relationship between movie attendance and television viewing, Bailyn (1959) found a significant positive relationship between the two variables. Hypothesis 17 is:

> H17: Frequency of respondent movie attendance will be positively related to frequency of television viewing.

Variety of respondent record preferences. Support here is the same as that offered for hypothesis 8 stated on page 21 on parental ownership of phonographs. Hypothesis 18 is:

> H18: Variety of respondent record preferences will be positively related to frequency of television viewing.

Media respondent would miss most. Hypotheses for respondent media preference and media credibility ratings must be derived mainly from studies other than those done on children's television use. Westley and Severin (1964) and Carter and Greenberg (1965) suggest that perceptions of the media are directly related to media use. Hypothesis 19 is:

> H19: Respondents who indicate they would miss television most will be heavier television viewers.

Respondent media credibility ratings. Based on the support offered for hypothesis 19 above, hypothesis 20 is:

H20: Respondents who indicate that television is their most believed medium will be heavier television viewers while those who indicate television is their least believed medium will be lighter television viewers.

Family cohesiveness

The third category of variables tapped in this study includes respondent reports on the character of interaction within his family. An impressive number of researchers have emphasized the need to look at the child's media behavior within the context of his family life. (Freidson 1955, Freedman 1961, Meyersohn 1957, Campbell 1962, Clark 1965, Riley and Riley 1955).

Despite agreement on the need to look at the child's family life, relatively little work has been done in the area of family relationships and mass media. One recent review of child development research, for example, lists not a single reference in a one-hundred-plus item bibliography on the relationship of the mass media within the context of the child's development (Douvan and Gold 1966). Most of the support cited for hypotheses below, therefore, is quite recent and indicative of an attempt (pointed out by Clarke 1965). to study the development of media use patterns by looking at parental socialization techniques.

A growing body of evidence suggests that this is a fruitful approach but one also fraught with problems. Himmelweit (1958), Schramm (1961), and other of the major children-television researchers have emphasized their collective findings that the quality of a child's home life is a predictor of his preoccupation with television.

Most of their findings may be derived from the frustration generalization which simply states that the more frustrated a child is the more he will turn to television as an escape. Freidson (1953) and Katz and Foulkes (1962) have dampened the clarity of this generalization however, with their assertion that high exposure to television may be as much a sign of lack of frustration in a closely knit family as it is a sign of frustration and resulting efforts to escape in a disruptive family. Other researchers (e.g. Clausen 1966) have also begun to stress the need for looking at the structure of a family as a complex class of variables needing analysis in at least several dimensions in order to yield clarity. Despite these admonitions which point up glaring weaknesses in existing attempts to look at the mass media within the family life context, the available work does provide a baseline for making predictions for the present study.

Parental permissiveness. This variable seems most closely aligned with the variable past researchers have used to test the frustration hypothesis in the context of family life. Maccoby (1954), for example, found that highly frustrated middle class children spent more time viewing television than children who were not frustrated.[1] A major portion of Maccoby's index of frustration was the severity of punishment and the degree of percental permissiveness. Becker (1964)

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[1]Most of the literature has applied this prediction to middle class respondents only. The respondents for the present study are for the most part middle class, as will be pointed out in Chapter III.

also notes that restrictive socialization techniques tend to lead to fearful, dependent, submissive children. The Maccoby finding has been consistently replicated by Schramm (1961), Bailyn (1959), and Lyle (1962). Thus, hypothesis 21 is:

H21: Parental permissiveness will be negatively related to frequency of child television viewing.

Child-parent communication. None of the literature cited here deals specifically with the degree to which the child feels able to talk to his parents. However, several of the major television and children studies make references to child-parent communication and child-parent conflicts. Thus, Maccoby (1954) used as one of her indices of frustration the degree of warmth in the child-parent interaction. Schramm (1961) found that when children saw a conflict between themselves and their parents they spent more time with television. Fine and Maccoby (1962) and Campbell (1962) indicated in their absence vs presence of television studies that while television families spent more time together there was less interpersonal interaction during that time. The intersection of this evidence suggests hypothesis 22.

H22: The degree to which the child sees himself as being able to talk to his parents will be negatively related to frequency of child television viewing.

Family togetherness. A variable related to the one above is the number of activities family members share together. Findings from the absence vs presence of television studies agree that while

families with television tended to spend more time in the home, the time spent on non-television activities was reduced. (Himmelweit 1958, Coffin 1955, Hamilton and Lawless 1956, and Maccoby 1951). Thus, hypothesis 23 for this study is:

> H23: The number of activities in which family members mutually share will be negatively related to frequency of child television viewing.

Parent orientation. None of the literature cited here has specifically dealt with the degree to which the child sees one or both of his parents as having done the most for them. However, this variable logically seems like another indice of the nature of the child-parent relationship and is cited (Douvan and Adelson 1966) in child development literature (usually labelled as emotional attachment to parents or its opposite, emotional autonomy). One study (Campbell 1962) found that television children cited their parents less frequently as "ego ideals." Since most evidence suggests that junior high school students are just beginning to broaden their social contacts to outside family members (Remmers 1957), it would seem that the child who expresses open separateness from his parents is indicating a degree of parent-child conflict. Thus, hypothesis 24 for this study is:

> H24: Those respondents who name neither parent as "having done the most for them" will be most likely to be heavy television viewers; those respondents who name only one parent will be next most likely; and those who name both parents will be least likely to be heavy viewers.

Parent decision making. Some studies have tapped various behaviors indicating whether the mother or father dominates various household activities or whether both parents mutually share in authority. One absence vs presence of TV study indicated that in television families, both parents tended to mutually share in the settling of program disagreements and selection of family activities (Hamilton and Lawless 1956). While sparse, this evidence provides hypothesis 25:

> H25: Where parents mutually share authority, their children will be heavier television viewers than where one parent holds most of the authority.

Respondent's home responsibilities. A number of prior studies have tapped as another index of the character of the child's home life, the degree to which the respondent himself shares in household responsibilities. Evidence from such child development researchers as Clausen (1966) indicates that American children in general share minimally in household tasks and that children who have a high involvement in household tasks tend to be more compliant and submissive. These latter attributes are often applied to children who are heavier users of television (Himmelweit 1958). Specific findings from the television and children studies indicate that for the absence vs presence of television situation, members of television families tended to spend more time on household chores and share the burden of household tasks (Hamilton and Lawless 1956, Belson 1960). The above

evidence suggests hypothesis 26:

H26: The number of home responsibilities a child has will be positively related to frequency of child television viewing.

Respondent knowledge of family operation. None of the prior work reported here has specifically looked at the respondent's knowledge of such everyday household operation questions as whether his family has banking accounts, what type of heat is used in the household, and so on. However, Himmelweit (1958) and others have hypothesized that television accelerates the impact of adult life, suggesting that the heavier television user may be more attuned to such questions. Thus, hypothesis 27 is:

H27: Respondent knowledge of family operation will be positively related to frequency of television viewing.

Parent-child agreement on television program choices. Little of the prior work has specifically looked at this variable. However, the intersections of evidence provided for several prior hypotheses suggests that parent-child agreement on television choices should relate positively to amount of child television viewing. If amount of child viewing is positively related to amount of parent viewing, then the child has, in part, at least acquired his viewing habit from parental imitation. Further Himmelweit (1958) and others have pointed out that heavy television users tend to come from families where television is used as a child distractor and "babysitter" and where children's choices, implicitly at least, tend to dominate program selections. This then provides another basis on which parent-child

television choices should seem in agreement as amount of TV viewing rises. Thus, hypothesis 28 is:

H28: Parent-child agreement on television program choices will relate positively to frequency of child television viewing.

Respondent's Perceptions of His Own and His Parents Community Integration

The fourth category of variables tapped in this study include respondent perceptions of the degree of his own and his parents integration within the community. The same researchers who have stressed the need to study media use patterns within the context of family life have also stressed the need to look at these behaviors within the context of the individual's integration into peer and community groups. Additional support for the emphasis is offered by research on teenagers which suggests that friendship relations are a major problem for adolescents as they begin for the first time to branch outside their families for their contacts (Remmers 1957). Coleman (1961) further suggests that there is increasing evidence that today actual family relationships have less influence on behavior as adolescents look more to each other and less to adults for their social rewards.

As with the family cohesiveness class of variables, most predictions of the relationship between community integration and amount of television viewing are derived from the frustration generalization. The prediction for variables which seem to be tapping any type of alienation would be for a positive relationship between degree of

alienation and amount of exposure. Again, this class of variables presents a problem in terms of predictions. Much of the literature suggests that such variables relate to quality of use differences between respondents rather than quantity of use differences (Riley and Riley 1955). Television may be escape for a low gregarious respondent and a method of entertaining friends for a high gregarious respondent.

Parent gregariousness. None of the literature cited here has specifically looked at the relationship between parent gregariousness and frequency of child television viewing. However, the literature generally shows that the introduction of television led to a reduction in gregariousness (in terms of interaction with peers informally) for both adults and children (Campbell 1962, Belson 1960, Hamilton and Lawless 1956). Himmelweit (1958). emphasized that one of the characteristics of her "addict" viewers was their less frequent visiting with friends and their feeling of rejection by peers. Conflicting evidence, suggesting a non-significant relationship, is offered by Maccoby (1951) in her television vs no television comparison and Troldahl and Costello (1966). Both found no relationship between time spent with teenage friends and time spent viewing. When gregariousness is operationalized in terms of participation in community activities, the bulk of the evidence applies only to the television vs no television comparison and shows no relationship (Abrams 1956, Belson 1959, and Himmelweit 1958). Despite the conflict

in findings, a combination of the parental imitation and frustration generalizations yields hypothesis 29:

H29: Parental gregariousness will be negatively related to frequency of child television viewing.

Respondent gregariousness. On the basis of the evidence cited for hypothesis 29, hypothesis 30 is:

H30: Respondent gregariousness will be negatively related to frequency of television viewing.

Outside home orientation. A good deal of the literature has been concerned with the relationship between television behaviors and the family's use of community resources. Most of the evidence comes from television vs no television comparisons and shows that television use did relate to a reduction in attendance at outside home events. Hypothesis 31 is:

H31: The degree of a family's outside home orientation will be negatively related to the frequency of child television viewing.

Length of time in community. Little evidence is available on this variable. However, Himmelweit (1958) noted that one of the characteristics of her "addict" viewers was that they were newer to their neighborhoods. Based on this sparse evidence, hypothesis 32 is:

H32: Length of time in community will be negatively related to frequency of child television viewing.

Frequency of attendance at church. Evidence here conflicts with several researchers finding that the introduction of television lead to a reduction in church attendance (Hamilton and Lawless 1956, Campbell 1962); others finding no such reduction (Himmelweit 1958); and others finding no relationship between time spent on church activities and time spent on television (Westley and Severin 1964). Bailyn (1959) found, interestingly, that Catholics were more exposed to her "pictorial media", including television, than non-Catholics and this variable was one of her four strong predictors of exposure. Despite the conflict in findings, if church attendance is conceptualized as a measure of community integration, hypothesis 33 results:

- H33: Frequency of attendance at church will be negatively related to frequency of child television viewing.

Respondent knowledge of local and state public figures. The one bit of evidence available for this variable comes from Schramm (1961) who found that light television viewer children were more able to identify statemen than heavy television viewers. Ordinarily, this variable is placed in the category of variables dealing with respondent knowledge levels (called the "self-orientation" category in the present study). However, the variable has been placed in the community integration category for this study because the respondents were not actively involved in the study of local and state affairs. This suggests that their knowledge in the area would more logically be an index of the degree to which their parents are concerned with community and state issues. Based on the evidence above, hypothesis 34 is:

H34: Respondent knowledge of local and state public figures will be negatively related to frequency of television viewing.

Self orientation

The fifth category of variables in this study is a composite of the child's reports of his own knowledge levels and interests with his perceptions of his parents' interests. Most of the major television and children studies have generated a category of variables of this type. Hamilton and Lawless (1956), for example, termed this general area the "personality" action area of their respondents' orientations. Others, such as Belson (1959), more simply stated their concern as focused on the interests, activities, and initiatives of their respondents.

Hypotheses for this class of variables are derived mainly from the functional displacement and information void generalizations outlined in Chapter I. When the focus is more on actual activities, such as hobbies, the functional displacement generalization applies. However, when the focus is more on knowledge levels, the information void generalization applies.

Number of respondent hobbies.

Belson (1959), Campbell (1962), Maccoby (1951), and Hamilton and Lawless (1956) all found a reduction in the number of creative hobbies respondents had or the range of activities they participated in after the introduction of television. Himmelweit (1958) described her "addict" viewers as being less active and having fewer interests. Thus, hypothesis 35 is:

H35: The number of respondent hobbies will be negatively related to frequency of television viewing.

Number of parent hobbies. By applying the parental imitation generalization to the evidence supporting hypothesis 35 above, hypothesis 36 becomes:

H36: The number of parent hobbies will be negatively related to frequency of child television viewing.

Respondent knowledge levels. The evidence generally suggests that television neither helps nor hurts a child's general information level (Himmelweit 1958, Schramm 1961), when intelligence is controlled for. Intelligence is an important control here for several researchers agree that intelligence is one of the single most important determinants of amount of viewing (Himmelweit 1958, Witty 1966, Maccoby 1964, Schramm 1961, Bailyn 1959). When the focus on learning is changed to specific classes of information, however, several researchers offer support for predicting significant relationships between knowledge levels and television exposure. Schramm (1961), for example, found that heavy viewers of television were more able to name bandleaders and pop singers -- figures often represented on television. The heavy viewers were less able to name faraway places and statesmen -- places and people represented more often in the other media. Some evidence is available on knowledge of math (a measure more directly related to intelligence). Scott (1958) found heavy

viewers got lower arithmetic scores than light viewers. This finding is contradicted by Witty (1966), who found no difference in math grades between respondents at different viewing levels. Despite some contradictions in the evidence, hypothesis 37 is:

> H37: Information levels on advertising slogans and television characters will be positively related to frequency of television viewing while information levels on math will be negatively related to frequency of television viewing.

Respondent's outside home employment. None of the literature cited here has looked at the relationship of this variable to amount of television viewing although logic would suggest that the more a child works, the less time he should have for television. Work done in the child development area adds more substance. Clausen (1966) indicates that boys (at least) who work outside the home are more peer-oriented, assertive, and high in drive for recognition. These attributes sound much like those used by Himmelweit (1958) and others to describe the child who is less likely to be a heavy television viewer. Thus, hypothesis 38 is:

> H38: The amount of the respondent's outside home employment will be negatively related to frequency of television viewing.

Number of hours respondent studies. Most of the evidence here comes from comparisons of non-television vs television users and has generally found no relationship between this variable and television use (Maccoby 1951, Himmelweit 1958, Campbell 1962, Schramm 1961). None of the literature cited here, however, has looked at the

relationship of the variable to amount of television viewing and logic would suggest that at some high level of viewing there would be less time available for study. Thus, hypothesis 39 is:

H39: The number of hours respondents study will be negatively related to frequency of television viewing.

Frequency respondent studies in library. Support for a prediction on this variable is derived from that offered for hypothesis 39 above and for hypothesis 16 predicting a negative relationship between general library use and amount of exposure. Hypothesis 40 is:

H40: The frequency with which respondents study in the library will be negatively related to frequency of television viewing.

Consumer Orientation

The sixth category of variables in this study deals with the respondent's family as a consumption unit. Describing American society as a "consumer" society has almost become a triteism.[1] Yet, few of the studies dealing with correlates of amount of television viewing in children have tapped this dimension of their lives. A conceptual rationale for tapping this area is provided by discussions by Schneider and Lysgaard (1953) on deferred gratification patterns and Schramm (1961) on use of the immediate vs delayed reward model. For Schneider and Lysgaard, deferred gratification referred generally to the ability to postpone gratifications or satisfactions.

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[1] 1950 is often used as the baseline date at which consumer credit began to grow in the U.S. Huber (1965), for example, states that since 1950 consumer credit has increased 165% in this country.

Among the attributes of people who can defer are a wish to save money for the future and wise expenditure of money in the present. While they applied their variable mainly to socio-economic class differences in the early 1950's, it seems logical that deferred gratification may vary widely both within and between socio-economic class levels. The application of the deferred gratification notion to media use was first made by Schramm who sees television, in part at least, as a satisfaction of a need for fantasy on the part of some children.

In making predictions on consumer variables, a number of the generalizations outlined in Chapter I seem to be relevant. The frustration generalization, for example, seems applicable if the child sees his parents as having a large number of money worries. The information void generalization might apply to situations in which the child has picked up an attitude on consumer credit, a topic which is not usually one which children know about but which television expounds at great length. The parental imitation hypothesis would apply, also, in the sense that if the child indicates his parents have a high consumption orientation this suggests lack of the deferred gratification pattern and increased television exposure for both parents and child.

Number of money worries. In addition to the rationale above, one study (Huber 1965) indicated that, in comparison with control families, overextended debtor families viewed television much more.

Thus, hypothesis 41 is:

H41: The number of money worries the child reports he has and his parents have will be positively related to frequency of child television viewing.

Spend-save orientations. In addition to the basic notions on the deferred gratification pattern, Himmelweit (1958) offer evidence supporting predictions for this variable. She found, in her absence vs presence of television comparison, that viewers became more materialistic the longer they had television -- i.e. they became more interested in things they would like to own. Thus, hypothesis 42 is:

H42: Children who report that they would rather spend-than-save and that their parents would rather spend-than-save will be heavier television viewers than other respondents.

Family use of credit. Using the support offered for hypothesis 41, hypothesis 43 is:

H43: Frequency of family use of credit will be positively related to frequency of child television viewing.

Attitude toward credit. A combination of the rationales used above and the information void generalization suggests a prediction for this variable. If one can assume that the use of credit is not a topic which young children often talk about either to adults or peers, then the large amount of consumer credit type advertising which is presented on television should, via the information void generalization have some impact. Thus, hypothesis 44 is:

H44: Respondent attitudes toward credit will be positively related to frequency of television viewing.

Variety of respondent spending. On the basis of the evidence above (particularly the support for hypothesis 42 on page 41), hypothesis 45 is:

H45: Variety of respondent spending will be positively related to frequency of television viewing.

Family shopping orientation. This variable is descriptive of the geographic width of the family's shopping activities as perceived by the respondent. A restricted range has been shown by such consumer researchers as Caplovitz (1963) to be a characteristic of the shopping methods of low-income families. It has also been suggested that more consumption-oriented families do less comparison shopping. Thus, hypothesis 46 is:

H46: The range of the family's shopping orientation will be negatively related to frequency of child television viewing.

Demography

The seventh and last category of variables include demographic-type characteristics of the respondent and his family. White (1964) and others have often termed the use of this class of variables in explaining mass media exposure as the "social aggregates approach". In the early work on television and children, this was the most popular class of variables and, significantly, was often among the strong predictors of behavior. For example, much evidence supports

a strong relationship between socio-economic class and various television behaviors (Schramm, 1961, Bailyn 1959, Samuelson, Carter, Ruggels 1963, and others). Most researchers have acknowledged, however, that demography can account for only a certain percentage of the variance (e.g. Schramm 1961) after which personality, social, and other variables must account for differences. Recent evidence further suggests that the usual differences in media exposure predicted by demography may be disappearing (Edelstein 1966). Television, in particular, has become so ubiquitous that long held assumptions about the relationship of demographic variables to television usage need reevaluation. The variables listed below are included in the interest of this reevaluation.

Socio-economic status. This variable has been termed by various researchers (e.g. Kahl and Davis 1955) as at best a clumsy variable, a composite of some social and economic attributes that tend to cluster together. Income, they said, is a poor measure while occupational status is the best single index. Their factor analytic study of nineteen socio-economic class measures yielded two major factors -- one including occupational and educational measures, the other including ecological measures (e.g. rental value of property). Income loaded on both factors. This account explains some of the conflict in findings on the relationship of various socio-economic class measures to television use. Despite some conflict in the findings, however, most evidence suggests that socio-economic class variables relate negatively to amount of television viewing for both

adults and children. With occupational status as the measure, Scott (1958) and Bailyn (1959) both found negative relationships with Himmelweit (1958) finding no significant difference. With education of household adults as the measure, Steiner (1963), Schramm (1961) and Samuelson, Carter, and Ruggels (1963) all found negative relationships while Westley and Severin (1964) found no significant difference. With income as a measure, most studies up to 1955 found a negative relationship (Coffin 1955) while Westley and Severin (1964) again found no difference. One researcher (Geiger 1959) used the more ecological variable, rent, and again found a negative relationship. Since most of the evidence agrees, hypothesis 47 is:

H47: Socio-economic status of parents will be negatively related to frequency of child television viewing.

Family size. The evidence from television studies for this variable applies mainly to the introduction of television and indicates that larger families were more eager for the new medium (Coffin 1955, Himmelweit, 1958). Logic, of course, would suggest that in terms of amount of usage, television would more often be used as a child distractor in larger families. Child development researchers (Clausen 1966) also offer evidence that large families generate more rules for member behavior and provide less parent-child interaction -- characteristics which various television researchers have used to describe the families of the "addict"

television-user child (Himmelweit 1958, Maccoby 1954, and others). Thus, hypothesis 48 is:

H48: Family size will be positively related to frequency of child television viewing.

Mother's employment status. None of the literature cited here has tapped this variable. However, popular beliefs that maternal employment provides less opportunity for child-parent interaction and leads to more anxious and insecure children suggests that a test should be made of whether the child whose mother works is a heavier television viewer. Thus, hypothesis 49 is:

H49: The frequency of the mother's employment will be positively related to frequency of child television viewing.

This hypothesis is offered while acknowledging that recent work on the correlates of maternal employment shows no relationship to parent attitudes toward child rearing or quality of parent-child interaction (Yarrow 1964).

Family type. Whether respondents come from one or two parent families has not been tapped in the literature cited here. With increasing divorce rates, however, the variable may be more relevant today than it was 10 to 15 years ago when most television-children research was done. On the basis of an inference that the child from a one parent family may, either through social comparison with peers or through the trauma of separation from one of his parents, be more anxious and insecure, hypothesis 50 is:

H50: Respondents from other than two-parent families will be more frequent television users than respondents from two-parent families.

Birth order. Whether the respondent is an only child, first born, or later born is another variable which has not been specifically tapped in television and children studies. The rationale for including it here is the increasing reference to the variable as having some significance in communication behaviors (e.g. Edelstein 1966). Schachter (1959) introduced the variable as a mediator of both anxiety and gregariousness. His rationale indicated that as parents have more children, they devote less attention to the latest child, and become less permissive, less restrictive, and more consistent in their interactions with the child. Schachter sees the first born child as being raised in a manner that would reinforce dependent behavior, requiring more social approval and support. Here again is a list of attributes which sound like those such researchers as Himmelweit (1958) have used to describe their addict television viewers. While the leap from Schachter's work is, perhaps, tenuous, hypothesis 51 is:

H51: Only and first born children will be more frequent television users than later-born children.

Sex. The last variable in the demographic category is respondent sex and is the one variable on which all available evidence agrees one hundred per cent. No significant difference has been found between boys and girls on the amount of their television viewing (Merrill 1961, Baxter 1960, Himmelweit 1958, Schramm 1961).

Bailyn (1959) did find that boys were significantly more exposed to "the pictorial media" but this difference was accounted for mainly by attention to comics not television. Thus, sex is included here in the interests of replicating an often-tested variable but no specific hypothesis is formulated.

CHAPTER III

METHODOLOGY

This study is drawn from a large set of available data originally collected by the Center for Consumer Affairs, the University of Wisconsin Extension, University of Wisconsin - Milwaukee. Purpose of the original survey was to collect some exploratory data on children's knowledge of consumer and homemaking practices as well as to tap various aspects of their media use and life styles. The original questionnaire was developed in cooperation with Milwaukee area public school home economics teachers and pre-tested on a judgmentally selected sample of 50 junior high school students attending public schools in the Milwaukee metropolitan area. The questionnaire was revised based on pre-test results and then administered to all the 7th and 8th grade students in one suburban school system outside the city of Milwaukee. While analysis of marginals was completed in the summer of 1965, no prior reports of the survey have been published.

Questionnaire administration

The questionnaire was administered by teachers in the suburban school system in three phases -- one in October 1964, one in December 1964, and one in February 1965. During each phase, approximately 90 students -- half from the 7th grade and half from the 8th grade -- completed the self-administered questionnaire.

The questionnaire took two 50-minute class periods to complete and included 212 different items, many containing multiple sections.

The respondents and their community

Respondents included all the students in the suburban community's public seventh and eighth grades. Eliminating absences (estimated at less than 5%), 270 students completed the original questionnaire: 122 seventh graders and 148 eighth graders; 143 boys and 127 girls. The respondents ranged in age from 11 to 14 years - 4% were 11 years old; 36% were 12; 49% were 13; and 11% were 14.

In 1960, the suburban community in which these respondents lived was populated (U.S. Bureau of Census figures, 1961) by some 16,000 persons, of whom more than 99% were Caucasian. Median family income for the four census tracts covered by the community ranged from $7646 to $12,414 and the median value of a housing unit ranged from $17,400 to $25,500. The median education obtained by adults in the community ranged from 12.4 to 14.2 years.

Item selection

From the original set of 212 items in the Wisconsin survey, 90 were used for the purposes of this study. Since many of the original items contained more than one specific response from each respondent, a total of 147 different responses were actually coded in the first phase of the present study. These 147 responses were selected to tap the variables for which predictions are made in Chapter II. The 147 responses were then coded, punched and verified

onto IBM cards, and then reduced (with indexing and deletions) to the final set of 62 variables. Complete details on these operations follow.

Item measurement

The original Wisconsin survey included both open and closed items. About one-quarter of the actual items selected for the present study involved content analysis of open-ended responses. For the rest of the items, the original survey had detailed response categories from which codes were easily derived.

In developing a coding scheme for all items, response codes were cast in a continuous fashion with as extended scales as possible. A few variables are measured as dichotomies on "yes vs no" scales. An example of such a variable is the respondent's rating of media credibility which was coded as "checked television vs did not check television." Most variables may be seen as on the ordinal level of measurement. An example is parent television viewing for which response codes were "often, sometimes, once in a while, or never." Some variables in this study have extended scales that meet interval level of measurement assumptions. An example is the criterion variable -- amount of respondent television viewing -- which taps respondent viewing of up to 26 television programs.

Strictly speaking, the replication purpose of this study did not require the kind of measurement outlined above. Most of the past television studies have used contingency analysis for their data and have included many nominal or category-type variables. However, the

present study intends to go beyond a straight replication to a multivariate, correlational analysis. In order to meet the assumptions of a correlational analysis, an attempt was made to cast each variable in a continuous manner (or, at least, so underlying continuity could be assumed) and to extend the range of the variable as far as possible.

Item coding

Appendix A lists the original wordings and codes for the independent or predictor variables used in this study. Full details on the dependent or criterion variable are reported in a later section of this chapter. In Appendix A, variables which required content analysis are starred with an asterisk (*). The original coding for this study was done by a team of four coders, working in pairs. Each of the 147 original items was coded twice, once by each member of a coder pair. Interjudge coding reliabilities were calculated for all items across all respondents. The measure of reliability used was the percentage agreement index:

$$\frac{\text{Total \# of respondents - \# of coder disagreements}}{\text{Total \# of respondents}}$$

The formula produces a percentage, for which the a priori criterion of acceptability was set at .90. Appendix A lists the percentage agreement indexes for all items used in this study -- both those that were used alone or those that were collapsed into indexes.

Reliabilities ranged from a low of 89% to a high of 100% with most being in the range of 97 to 99%. For most items, the agreement criterion was set for agreement on an exact code. For example, in counting the total number of television programs a respondent said he viewed regularly, one coder might have calculated 17, the other 18. This discrepancy was counted as a coder disagreement. On one variable, the criterion was relaxed to agreement within one point. That variable was occupational prestige, measured on a 12 point scale. If one coder rated a family's occupational prestige as 8 and the other rated it as 9, this was not counted as a disagreement. However, ratings of 8 and 10 by two coders was counted as a disagreement. The reason for relaxing the agreement criterion for this single variable was the high degree of subjective judgment involved in coding occupational prestige.

Reduction of items by deletion and indexing

From the set of 147 different responses coded in the first phase of this study, 103 were finally used in this study. The remaining 44 were deleted for one of two reasons: 1) the item lacked sufficient variance for statistical analysis; or 2) the item did not interrelate with other items for the purposes of index construction and was deleted.

Complete details on the operations involved in constructing indexes for this study are outlined in Appendix B. Briefly, the operations involved first making a priori decision of what items seemed to be tapping similar behaviors. This a priori decision was then checked by running Pearson product moment correlations between the

items for each set of potential indexes. Items which were significantly intercorrelated were then indexed by simply summing scores across the set. In addition to giving details on the general indexing procedures, Appendix B lists the operations involved for constructing each of the final 13 indexes and the correlations for items summed for each index.

After item deletion and indexing, the final 62 predictor variables used in this study remained. Appendix C lists these variables with their means, standard deviations, non-response counts, and code ranges.

Respondent deletion

Before indexes were constructed, 18 respondents were deleted from the original set of 270 respondents who completed the Wisconsin survey. Each of these respondents was excluded because he had a non-response level above 10% for the original 147 responses coded. An analysis was made of the effect of the deletion of these respondents on the criterion variable and ten other randomly selected variables. Results showed that responses of the deleted respondents were randomly distributed -- i.e. they represented fairly equally all levels of television viewing, both sexes, all levels of socio-economic class, and so on. The final n for this study, then, is 252.

Description of the criterion variable

The original Wisconsin survey asked respondents to check off which of 26 different television programs they watched regularly. The 26 different shows represented a total of 26 hours of television viewing

a week or almost 4 hours a day on the average. The original items were worded as follows:

"Which of the following TV shows do you watch regularly?"

___Andy Griffith	___Petticoat Junction
___Dick Van Dyke	___Jack Benny
___Ed Sullivan	___Donna Reed
___Patty Duke	___Beverly Hillbillies
___Danny Thomas	___Lucy Show
___Red Skelton	___I've Got a Secret
___My Favorite Martian	___McHale's Navy
___Lassie	___Bonanza

"Do you watch any of the following shows?"

___Ben Casey	___Dr. Kildare
___Breaking Point	___Richard Boone
___East Side West Side	___Bob Hope
___Defenders	___Eleventh Hour
___Danny Kaye	___Late movie

The first 16 shows listed include the top 16 shows of Fall 1964 when the Wisconsin survey was first launched. The second 10 shows listed were a judgmental selection of adult drama shows that were receiving considerable attention in the Fall of 1964 but were not in the top viewing ratings.

While these two lists of television shows are unlike any measures of television viewing specifically used in past studies, they seem most like the "aided recall" type of measure that Schramm (1961) talked about in the discussion of measuring exposure time to television. Usually, of course, aided recall measures list all the television programs for a specific time period and ask the respondent to check which ones he watched. Instead the measure available for the present

study lists a selection of the more popular shows. According to Schramm (1961), the aided recall method of tapping television viewing was one of the better measures in terms of its correspondence with a check of actual time spent viewing.

Original coding of the amount of television viewing measure for the present study was simply a count of the number of different programs checked with codes ranging from 0 to 26.[1] One major problem was readily apparent, because the original Wisconsin survey had been administered over a five month period with one administration in October 1964, one in December 1964 and one in February 1965. While the list of shows in the questionnaire checklist remained constant, actual television programs changed as the television season progressed. As expected, a check of the means of respondent scores on the two television checklists showed a significant difference between the October, December, and February administration times. Tables 1 and 2 on the following page report the mean scores for the first checklist (the checklist of the top 16 shows) and the results of the analysis of variance used to test whether these means were significantly different. Tables 3 and 4 (on page 57) report the same information for the second checklist of 10 adult drama shows.

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[1] The interjudge coding reliability for the criterion variable was 97%. See page 51 of this chapter for an explanation of coding operations and reliability checks.

Table 1. Means for respondent scores on the top 16 television show checklist, reported by questionnaire administration date.

	Mean
October 1964 administration	7.67
December 1964 administration	6.68
February 1965 administration	5.45

Table 2. One-way analysis of variance table testing the difference between scores on the top 16 television show checklist by questionnaire administration date

Source of variance	df	ss	ms	F	p
Between	2	238	119.00	9.31	$p < .001$
Within	262	3347	12.77		
Total	264[1]	3585			

[1] Total n for this test was 265. The test was made before the respondent deletion procedure described earlier in Chapter II. Five of the original 270 respondents did not answer these two television use items.

Table 3. Means for respondent scores on the 10 miscellaneous adult drama television show checklist, reported by questionnaire administration date

	Mean
October 1964 administration	5.78
December 1964 administration	5.15
February 1965 administration	4.65

Table 4. One-way analysis of variance table testing the difference between scores on the 10 miscellaneous adult drama television show checklist by administration date.

Source of variance	df	ss	ms	F	p
Between	2	94	47	5.78	$p < .01$
Within	262	2129	8.13		
Total	264	2223			

Results of this analysis show that, for the top 16 show checklist, means for the three time periods declined from 7.67 for the first administration to 5.45 for the last administration. The difference between the three groups is significant ($p < .001$). For the second

checklist of 10 adult drama shows, again the means declined from 5.78 in the first administration to 4.65 in the last administration. The difference between the three administration groups is significant ($p < .01$).

To make sure that this difference between administration dates resulted only from television programming changes as the year progressed and was not an inherent difference between respondents, analysis of variance tests were also made on three additional variables: 1) variety of respondent newspaper reading; 2) frequency of respondent radio use; and 3) frequency of respondent movie attendance. For those three variables, the differences between mean scores of respondents in the three administration time groups were not significant.

To compensate for the difference that administration times made in respondent television use scores, the scores (which resulted from summing the total number of shows checked on both the checklists described above) were standardized within administration groups. A check of the shapes of the distribution of the television use raw scores indicated that these distributions closely approximated normality and, thereby, met the criterion for using standard scores (McNemar 1962). Rather than use the usual standard z score which involves positive and negative values, scores were standardized to distributions with means of 50 and standard deviations of 10. The standard scores ranged from 24.2 to 81.4.

Statistical analyses

In review, the basic purposes of the present study are:

1) To replicate much of the past work on correlates of frequency of child television viewing;

2) To go beyond a replication by including some variables which have been partly or wholly overlooked in past works;

3) To then extend the analysis to a multivariate method; and

4) To specifically look at the types of relationships which exist between the criterion variable and its predictors.

To accommodate these purposes, four different types of statistics are reported in Chapter IV. In analyzing the relationship of any one predictor variable to the criterion variable, three measures are used: 1) contingency crossbreaks with chi-square values; 2) Pearson product moment correlations; and 3) Eta, the curvilinear correlation ratio. For the multivariate analysis, one measure is used: multiple regression or multiple linear correlations. Full details on the operations, assumptions, and rationales for these analyses follow. All reported significance tests are two-tailed.

Chi-square contingency analysis. With rare exceptions, the technique used for analysis in most of the past television and children studies has been contingency analysis of frequencies. For this reason, contingency analysis is used here to study the relationship between each of the predictor variables and the criterion variable.

Since most of the variables in this study were measured on as extended continuous scales as possible, the use of contingency analysis required that variables be collapsed. In all cases, variables were collapsed empirically rather than judgmentally -- i.e. after examining the marginal distributions for each variable, respondents were divided into groups by a quintile, quartile, tertiary, or median split. The maximum split used was one which created five categories on a variable since any larger number of categories reduced cell expecteds to a point where the use of the chi-square distribution becomes suspect (McNemar 1962). The criteria used for collapsing each variable involved two operations: 1) an attempt to have as large a number of categories (up to 5) as possible; and 2) an attempt to have the total number of respondents as equally divided among categories as possible.

Special mention should be made of the reduction of the criterion variable to four categories. The variable in its standard score form had scores ranging from 24.2 to 81.4, approximately normally distributed. The variable was collapsed into quartiles, which have been labelled: 1) low frequency of television viewing; 2) moderately low; 3) moderately high; and 4) high. In the result tables in Chapter IV, these four levels of viewing will often be referred to by initial as: L (low); ML (Moderately low); MH (Moderately high); and H (high).

In splitting the criterion variable, ties at quartile deviation points were allocated to viewing levels so that n's would be as nearly equal as possible. The actual split produced the following distribution of respondents: L, 56; ML, 64; MH, 67; and H, 65.

Because the quartile split on the criterion was done on the standardized score version of the variable rather than the raw scores, the resulting levels of viewing are not directly translatable into number of shows watched regularly. The significant difference in frequency of viewing times across administration groups makes a precise translation impossible. As a rough guideline, however, the levels of viewing correspond roughly with the following number of shows checked on a 26 TV program checklist: L, 0-7 shows; ML, 8-10 shows; MH, 11-15 shows; and H, 16-26 shows.

All contingency analyses reported in Chapter IV involve the pitting of one predictor variable against the criterion variable. All analyses were done by computer. Significance criterion was preset at $p < .05$; relationships reaching $p < .10$ are also reported. Tabled n's will vary somewhat because for this aspect of the analysis, all respondents with non-responses on the predictor variables were deleted. The number of non-responses for each variable is in Appendix C.

Pearson product moment correlations. Since one of the purposes of this study is to look at the nature of the relationship between each predictor variable and the criterion, Pearson product moment correlations are reported. These will be analyzed in two ways: 1) in terms of the direction of the relationships; and 2) in terms of the variance accounted for in the criterion by the predictor. Variance accounted for by this linear model will be compared with variance accounted for by a

curvilinear model (the Eta correlation ratio described below).

Computation of the product moment correlations for the results section of the present study was done by computer. As noted earlier, all variables were cast on as continuous and extended scales as possible in order to meet the measurement assumptions of product moment correlations. Whenever non-responses occurred on items, the mean value of scores for that item was filled in. Appendix C lists all items, their means, and the number of non-responses. Using the r to z transformation test of significance (McNemar 1962), the critical value of r at $p < .05$ for an n of 252 is .12. All correlations significant at or beyond the .05 level will be noted in the findings sections.

Eta curvilinear correlation ratio. Eta or the correlation ratio is a measure which taps degrees of relationships in general, whether they be linear or curvilinear. If a relationship is actually linear, the Eta and the product moment correlation will be the same. If the relationship is actually curvilinear, the Eta will be larger than the product moment correlation. (McNemar 1962).

On the basis of this reasoning, Etas are reported for the relationship of each of the predictor variables to the criterion variable. Since there are two Etas for each relationship, the

specific Eta reported here is the one which taps the accuracy with which the criterion variable (Y) can be predicted by the predictor variable (X).[1]

One question that might be asked is why use Eta when the contingency analysis described earlier taps curvilinearity. One problem with contingency analysis and the use of the chi-square distribution, however, is the constraint of needing adequate cell ns. This requires collapsing variables, often to such a degree that there is not sufficient spread for tapping curvilinearity. Since Eta is computed from an analysis of variance model, the constraint of sufficient ns is not as restricting -- i.e. for each value of a variable, a minimum number of respondents is needed in order to enable calculating a measure of variance. By this logic, Eta is a measure more directly comparable to the linear product moment correlation which taps all values of each variable in its computations.

The calculation of Etas for this study was done by computer. In the process, each variable was standardized and then broken into categories, each 1/4 standard deviations in width. Purpose of this procedure is to enable the calculation of the one-way analysis of variance from which Eta is derived. Treatment of non-responses for the Eta analysis is like that for the product moment correlations -- mean values for each variable replaced all non-responses. Thus, the

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[1]The other Eta taps the accuracy of predicting in the opposite direction -- the accuracy with which X may be predicted by Y.

n for each Eta was 252.[1]

In order to compare the predictive power of a linear versus a curvilinear model, the procedures used here was to square the r and the Eta for the relationship of each predictor to the criterion. The squaring process produces comparable figures -- percentage of variance accounted for in the criterion by the predictor. With such a comparison, the question must be asked: by how much must Eta exceed r before we reject the notion of linearity and accept the notion of curvilinearity? McNemar (1962) reports an analysis of variance method for testing the significance of the difference between product moment correlations and Eta correlation ratios. These tests have not been performed for the present study and comparisons are made on an intuitive basis.

One note of caution must be added. To the extent that Eta is larger than r, we obtain an indication that a curvilinear model may better fit the data. However, Eta says nothing about the nature of the relationship. For the present study, gleanings about the nature of the relationships may be obtained from the contingency tables.

Multiple correlation. One purpose is to use a multivariate

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[1]Unlike the computation of r, the computation of Eta does require some collapsing of the variables involved. The question may be raised whether the Eta derived from slightly collapsed scores is directly comparable to the r derived from actual raw scores. (McNemar 1962) A specific check on this problem was made by comparing r's derived from raw scores with r's derived from the categories used in the computation of Eta. In all cases, the two r's were equal.

technique to determine how much variance the 62 predictors account for in the criterion variable. The multivariate method used here is the multiple linear correlation or multiple R. The reason for the choice of this particular method is, first, that it is one of few multivariate techniques available. Secondly, it is the most efficient in terms of ease of prediction for it assumes a linear model. While not all predictor variables will be related in a linear fashion to the criterion variable, the multiple R analysis delineates which variables predict "best" assuming linearity. The loss, of course, is that some variables with a non-linear but high relationship to the criterion variable are necessarily deleted in the multiple R analysis. (McNemar 1962)

Several multiple R analyses were done for the present study. First, multiple correlations were run within each variable category (as outlined in Chapter I and II). This operation answered the question: which of the variables within each variable category accounts for most of the variance in amount of child television viewing? In the second phase, the best predictors from each category were analyzed to determine which of the category predictors were "best" overall.

The multiple correlation analyses were done by computer. The procedure involved first computing a multiple R using all the variables for a particular analysis as predictors of the criterion variable. The question of which variables are the "best" predictors was then answered by a least squares deletion routine. In this routine, predictor variables are deleted one by one according to which of the variables contributes

CHAPTER IV

RESULTS

In presenting results, the following format is used. Results are presented first within variable categories. For each variable category, the discussion begins with a table presenting the relationships of all variables to the criterion variable. Results are then discussed in terms of those variables for which hypotheses were confirmed and those which were not. The report for each variable category ends with a comparison of the linear correlations model to the curvilinear model and a report on the multiple correlation analysis within that category. The chapter ends with a report of the multivariate analysis between variable categories.

Respondent perceptions of parent media use

Table 5 summarizes the results for individual hypotheses on the relationship of parent media use variables to frequency of child television viewing. The results indicate that of ten variables, four are significantly related to frequency of child television viewing -- three in the direction predicted by hypotheses in Chapter II and one in the opposite direction. The variables which are not significantly related to child television viewing are: number of television sets, amount of parental radio listening, number of newspapers: dailies, number of newspapers: weeklies, number of magazines parents read,

the least to explaining variance in the criterion variable. The process allows variables to remain only if they account for a significant proportion of the variance in the criterion variable over that accounted for by the other predictor variables and the mean of the criterion variable. Every variable which does not contribute to explanation at $p < .05$ is deleted.

In reporting the results of the multiple correlation analyses, the best predictors for each analysis will be listed along with the significance level reached by each multiple R. These significance tests were completed by computer with an analysis of variance for overall regression technique. Respondent ns for the multiple correlation analyses is constant at 252. Non-responses on any items were replaced with the mean value of the scores on that item.

CHAPTER IV

RESULTS

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Table 5. Summary of results for individual hypotheses on the relationship of parent media use variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance accounted for r^2	Variance accounted for Eta^2
Amount of P TV viewing	+	<.05	.15[a]	.30	.02	.09
Variety of P TV viewing	+	<.05	.10	.33	.01	.10
Number of TV sets	+	n.s.	.07	.26	.00	.07
Amount of P radio listening	-	n.s.	-.02	.32	.00	.10
Variety of P radio use	-	<.001[b]	.31[a]	.43	.09	.18
Number of newspapers: dailies	-	n.s.	-.02	.30	.00	.09
Number of newspapers: weeklies	-	n.s.	.03	.28	.00	.08
Number of magazines P read	-	n.s.	.05	.27	.00	.07
Parental sources of news	+	<.10	.15[a]	.38	.02	.14
Number of phonographs	+	n.s.	.01	.32	.00	.10

[a]Significant at least at $p < .05$. Critical values of r's, by r to transformation test of significance, are: $p < .05 = .12$; $p < .01 = .15$; $p < .001 = .19$.

[b]While results for this variable are significant, they are in a direction opposite to that predicted.

and number of phonographs. For each of these variables, neither the X^2 nor the Pearson product moment correlations reached a significance level of $p < .05$. Table 7 (starting on page 73) presents the contingency crossbreaks and chi-square results for each of the predictor variables in this category. Details on the variables which are significantly related to the criterion variable follow.

Amount of parental television viewing. The X^2 for the contingency table comparing amount of parental television viewing against frequency of child viewing is significant at $p < .05$, with amount of parental viewing positively related to frequency of child viewing. This positive relationship is confirmed by the significant ($p < .01$) correlation of .15. The hypothesis for this variable is confirmed: respondents who see their parents as viewing TV less than "often" are significantly more likely to be lighter television viewers than respondents who see their parents as viewing TV "often".

Variety of parental television viewing. The X^2 for this variable reaches significance at $p < .05$. While the r of .10 does not reach significance at $p < .05$, the direction is positive. The positive direction of the relationship of variety of parental television viewing to frequency of child television viewing is supported by the distribution of percentages in the contingency table. Respondents who see their parents as viewing less variety in television are significantly more likely to be light television viewers than respondents who see their parents as viewing more variety. Thus, the hypothesis predicting a positive relationship between variety of parental television viewing and frequency of child television viewing is confirmed.

Variety of parental radio use. The X^2 for this variable is highly significant ($p < .001$). The direction of the relationship between this variable and the criterion is positive as indicated by

the significant ($p < .001$) r of .31. The positive relationship is supported by the distribution of responses in the contingency crossbreak: higher levels of child television usage are significantly associated with higher variety of parental radio usage. While results show a significant positive relationship, the hypothesis for this variable predicted a negative relationship to frequency of child television viewing. Two other radio use predictor variables in this study show significant relationships to the criterion variable in a direction opposite to that predicted. A possible rationale for these unexpected findings is in the next section of this chapter in the discussion of the variable, variety of respondent radio usage.

Parental sources of news. The X^2 for the relationship of this variable to the criterion is not significant according to the a priori $p < .05$ criterion. However, the X^2 does reach the $p < .10$ level of significance and the r of .15 is significant at $p < .01$. The crossbreak itself suggests the positive nature of the relationship: respondents who indicate that TV is their parents' source of news tend to be heavier television viewers than respondents who indicate other media are their parents major source of news. On the basis of the significant r, the hypothesis predicting parental use of television as a source of news would be positively related to frequency of child television viewing is confirmed.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 5) reports the r^2 and Eta^2 or variance accounted for in the criterion variable by each predictor

variable with a linear versus a curvilinear model. Without exception, the variance accounted for by Eta, the curvilinear correlation ratio, is greater than that accounted for by r. This discrepancy in variance accounted for ranges from a low of 7% to a high of 12%. While the linear r's account for from 0 to 9% of the variance, the curvilinear Etas account for from 7 to 18% of the variance.

Multiple linear correlation analysis. While the above would suggest that a linear model might not be the best for these data, nevertheless, a linear model still remains the most efficient multivariate prediction method. For this reason, a multiple R was computed among variables in this category. Table 6 reports the results of that computation.

Table 6. Results of multiple linear correlation analysis for the parent media use variable category.

Value of Multiple Correlation (R)		Variables retained after least squares deletion	
With all 10 variables included in equation	With variables retained after least squares deletion	Variable	r to DV
37[a]	.34[a]	Amount of parent TV viewing	.15[b]
		Variety of parent radio use	.31[b]

[a]Significant at $p < .0005$.

[b]The partial r's for the relationship of both variables to the criterion variable equal the r's.

Assuming a linear model, the 10 parent media use variables in combination accounted for about 14% of the variance in frequency of child television viewing. Variables were then deleted from the multiple R equation by the least squares criterion. At the end of the deletion process, the resulting multiple R equalled .34, accounting for 12% of the variance in the criterion variable. The two variables retained after the deletion were: amount of parental television viewing and variety of parent radio use.

Table 7. Contingency tables and chi-square values for the relationship of the parent media use variables to the criterion

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Amount of parental television viewing								
Never, once in a while, sometimes	26%	27	27	21	n = 161	8.15	3	< .05
Often	15	23	26	35	91			
					252			
Variety of parental television viewing								
Low	20 %	37	24	19	n= 79	17.26	9	< .05
Moderately low	28	15	36	21	58			
Moderately high	23	25	26	26	61			
High	19	19	21	40	52			
					250			

Table 7 -- Continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Number of television sets in household								
One television set	25%	24	25	26	n=117	.93	3	n.s.
More than one set	20	25	29	26	137			
					249			
Amount of parental radio listening								
Never, once in awhile	19%	26	33	21	n= 42	6.34	6	n.s.
Sometimes	17	31	26	27	90			
Often	27	21	25	27	120			
					252			
Variety of parental radio use								
Low	31%	29	23	17	n= 84	28.98	9	$<.001$
Moderately low	25	29	32	14	63			
Moderately high	17	20	28	34	53			
High	8	19	23	50	48			
					248			

Table 7--Continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Number of newspapers subscribed to: dailies								
None or one	21%	27	26	25	n=149	.89	3	n.s.
Two to five	23	22	27	27	103/252			
Number of newspapers subscribed to: weeklies								
None	22%	31	24	22	n=99	3.39	3	n.s.
One to four	22	22	28	28	153/252			
Number of magazines parents read								
None to two	28%	20	23	29	n= 98	13.72	9	n.s.
Three	15	37	26	21	65			
Four	22	19	39	19	41			
Five to eight	14	28	25	32	43/247			

Table 7--Continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Parental sources of news								
Other than TV	24%	26	28	21	n=174	6.64	3	n.s. (<.10)
TV	17	23	23	36	77 / 251			
Number of phonographs owned								
None to one	24%	22	29	26	n= 97	2.73	6	n.s.
Two	24	28	24	24	96			
Three to eight	17	28	25	30	57 / 250			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high, H = high. Total n for the tables varies because non-responses on the predictor variables were deleted. When total n = 252, (maximum sample size), ns for the varying levels of viewing are L, 56; ML, 64; MH, 67; H, 65. Minimum n's for the viewing levels in these tables are: L, 52; ML, 61; MH, 65; H, 64.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101% reading across the tables.

Respondent Media Use

Table 8 summarizes the results for individual hypotheses on the relationship of respondent media use variables to frequency of child television viewing.

Table 8. Summary of results for individual hypotheses on the relationship of respondent media use variables to frequency of child television viewing.

Variable	Prediction	X^2	p	r	Eta	Variance accounted for r^2	Variance accounted for Eta^2
Amount of R radio use	-	<.01[b]		.12[a]	.35	.01	.12
Variety of R radio use	-	<.01[b]		.25[a]	.40	.06	.16
Variety of R newspaper use	-	n.s.		.04	.32	.00	.10
Number of magazines R reads	-	n.s.		.05	.31	.00	.10
Variety of R book preferences	+	<.05		.18[a]	.41	.03	.17
R preference for comics	+	<.02		.21[a]	.34	.04	.12
R library use	-	n.s.		-.08	.32	.01	.10
Frequency of R movie attendance	+	n.s.		.17[a]	.36	.03	.13
Variety of R record preferences	+	n.s.		.04	.31	.00	.10
Media R would miss most	+	n.s.		.15[a]	.28	.02	.08
R's most believed media	+	n.s.		.09	.33	.01	.11
R's least believed media	-	n.s.		-.08	.34	.01	.12

[a]Significant at least at $p < .05$. Critical values for r's, by r to z transformation test of significance, are: $p < .05 = .12$; $p < .01 = .15$; $p < .001 = .19$.

[b]While results for this variable are significant, they are in a direction opposite to that predicted.

The results indicate that of 12 variables, six are significantly related to frequency of child television viewing. Four of these are significant by both the X^2 and r analyses; two have non-significant X^2s but significant rs. The variables which are not significantly related to the criterion variable by either statistical analysis are: variety of respondent newspaper use, number of magazines respondent reads, respondent library use, variety of respondent record preferences, and respondent media credibility ratings (most believe and least believed media). Table 10 (starting on page 84) presents the contingency cross-breaks and chi-square values for each of the predictor variables in this category. Details on the variables which are significantly related to the criterion variable follow.

Amount of respondent radio use. The X^2 for this variable is significant at $p < .01$. The r of .12 is also significant ($p < .05$). The relationship is positive with frequency of child television viewing rising significantly as amount of respondent radio use rises. While the results are significant, the hypothesis for this variable predicted a negative relationship between amount of respondent radio use and frequency of television viewing. This is the second radio use variable (variety of parental radio use in the preceding section is the other) which has related to frequency of child television viewing in a direction opposite to that predicted. A possible rationale for this counter finding is offered below in the discussion on variety of respondent radio use which also relates significantly to the criterion variable in a direction opposite to that hypothesized.

Variety of respondent radio use. The X^2 for this variable is significant at $p < .01$ with the distribution of responses again showing a positive relationship. The r of .25 is significant at $p < .001$. In general, then, as variety of respondent radio use rises there is a significant tendency for television usage to rise also. As with amount of respondent radio usage, the hypothesis for variety of radio usage suggested a negative relationship. In fact, the hypotheses for all radio usage predictor variables suggested a negative relationship between them and child viewing. Yet, three of the four radio usage variables in this study show a positive relationship -- variety of parental radio use, amount of respondent radio use, and variety of respondent radio use. Amount of parental radio use was non-significantly related to the criterion.

An explanation of these counter findings is difficult to draw. As the review of past research in Chapter II indicated, early television studies consistently showed that television displaced radio usage -- i.e. consistently negative relationships were found between the variables, absence vs presence of television and amount of radio usage. Variety of radio usage was, itself, seldom tested but the few available findings also suggested that variety became more restricted with the introduction of television. These findings, however, pertain mainly to the early introduction of television and the old-style dramatic radio. In the intervening years, radio has changed as a medium to the currently accepted music-news format. The most recently reported correlations of children's radio use and television

viewing have been non-significant (Parker 1960 and Troldahl and Costello 1966). One study (Bailyn 1959) found a small but significant negative correlation between amount of usage for both variables. In the context of these most recent findings, the results for the present study seem incongruous. Analysis of the contingency crossbreaks for the three radio use variables shows that very high and very low levels of radio usage and radio variety seem to generally go with very high and very low levels of television usage, respectively. This distribution of responses for the three variables may suggest a new kind of "all or none" principle applying only to electronic media usage.

Variety of respondent book preferences. The X^2 for this variable is significant at $p < .05$. The distribution of responses indicates a generally linear trend with increased variety in book preferences going with increased television usage. The significant ($p < .01$) r of .18 supports this positive relationship. The hypothesis predicting a positive relationship between variety of respondent book preferences and frequency of child television viewing is confirmed.

Respondent preference for comics. The X^2 for this variable is also significant ($p < .02$) as is the r of .21 ($p < .001$). The hypothesis predicting a positive relationship between preference for comics and frequency of child television viewing is confirmed.

Frequency of respondent movie attendance. While the X^2 for this relationship is not significant, the r of .17 is ($p < .01$). The

discrepancy between the two statistics is probably accounted for by the extensive collapsing required for the contingency analysis. While the crossbreak is not significant, the distribution of responses does show the hypothesized positive trend supported by the r -- i.e. higher levels of child viewing go with higher frequency of movie attendance.

Media respondent would miss most. Again, this is a variable for which the X^2 is not significant but the r of .15 is ($p < .01$). The distribution of responses is the crossbreak suggests the source of the positive correlation. While respondents indicating television as their most missed medium are slightly more likely to be heavier television viewers, respondents who indicate another medium as their most missed are slightly less likely to be heavier viewers. Given the significant r, the hypothesis predicting a positive relationship between respondent reports of television as their most missed medium and frequency of television viewing is considered confirmed.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 8) reports the r^2 and Eta^2 or variance accounted for in the criterion by the predictor with a linear versus curvilinear model. As with the parent media use category of variables, respondent media use variables account for more variance in the criterion with the curvilinear model. The discrepancy in variance accounted for ranges from a low of 6% to a high of 14%. While the linear r's account for from 0 to 6% of the variance in the criterion variable, the curvilinear Etas account for from 8 to 17% of the variance.

Multiple linear correlation analysis. Despite indications that a curvilinear model better fit the present data, the multiple linear correlation analysis was applied to respondent media use variables. The findings below, then, apply to a linear prediction.

Table 9 reports the results of the multiple R analysis within this variable category.

Table 9. Results of multiple linear correlation analysis for the respondent media use variable category.

Value of Multiple Correlation (R)		Variables retained after least squares deletion	
With all 12 variables included in equation	With variables retained after least squares deletion	Variable	r to DV
.42[a]	.39[a]	Frequency R movie attendance	.17[b]
		Amount R radio listening	.12[b]
		Variety R radio use	.25[b]
		Media missed most	.15[b]
		Variety R book preferences	.18[b]

[a]Significant at $p < .0005$.

[b]The partial r's for these variables all approximately equal the r's. The largest discrepancy between an r and a partial r is .03.

Assuming a linear model, the 12 respondent media use variables in combination, account for approximately 18% of the variance in frequency of child television viewing. At the end of the least squares deletion process, the resulting Multiple R equalled .39, accounting for 15% of the variance in the dependent variable. The variables retained after the deletion process included: frequency of respondent movie attendance, amount of respondent radio use, variety of respondent radio use, media missed most, and variety of respondent book preferences.

Table 10. Contingency tables and chi-square values for the relationship of respondent media use variables to the criterion variable.

Predictor variable	Frequency of child television viewing[a] L	ML	MH	H		Chi-square X^2	df	p
Amount of respondent radio use								
Never, less than 4 hours a week	30[b]%	21	25	24	n = 76	22.95	9	<.01
Up to 1 hour a day	18	45	14	23	56			
Up to 2 hours a day	17	20	29	34	80			
More than 2 hours a day	19	19	42	19	36			
					248			
Variety of respondent radio use								
Low	28%	28	28	16	n =128	18.82	6	<.01
Moderate	16	23	29	32	62			
High	11	25	23	41	56			
					246			

Table 10--Continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Variety of respondent newspaper use								
Low	29%	25	26	21	n = 89	5.59	9	n.s.
Moderately low	23	23	24	29	61			
Moderately high	13	31	27	29	45			
High	20	23	30	27	56			
					251			
Number of magazines respondent reads								
None to one	29%	27	22	22	n = 90	7.68	9	n.s.
Two	21	19	27	33	52			
Three	19	29	29	25	48			
Four to eight	15	28	33	24	54			
					244			

Table 10--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Variety of respondent book preferences								
Low	25%	36	25	14	n = 84	18.78	9	<.05
Moderately low	29	14	28	29	65			
Moderately high	19	21	24	36	42			
High	13	25	30	32	60			
					251			
Respondent preference for comics								
Does not prefer comics	27%	28	25	19	n =137	10.07	3	<.02
Prefers comics	17	21	28	34	114			
					251			
Respondent library use								
Never	20%	17	34	29	n = 35	9.18	6	n.s.
Sometimes	23	30	20	27	145			
Often	22	19	36	22	67			
					247			

Table 10--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Frequency of respondent movie attendance								
Never, seldom	29%	25	23	23	n = 118	6.74	6	n.s.
About once a month	16	29	28	28	76			
More than once a month	18	21	30	30	56 250			
Variety of respondent record preferences								
Low	24%	36	21	19	n = 42	5.54	9	n.s.
Moderately low	24	21	24	31	71			
Moderately high	21	23	31	25	61			
High	19	26	28	26	77 251			
Media respondent would miss most								
Other than TV	25%	30	30	15	n = 67	5.45	3	n.s.
TV	21	24	26	29	180 247			

Table 10--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Respondent media credibility ratings: most believed media								
Other than TV	26%	26	25	23	n = 102	1.47	3	n.s.
TV	19	25	28	28	148/250			
Respondent media credibility ratings: least believed media								
Other than TV	20%	25	29	26	n =213	5.28	3	n.s.
TV	35	24	16	24	37/250			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high; H = high. Total n for the tables varies because non-responses on the predictor variables were deleted. When total n = 252, (maximum sample size) ns for the varying levels of viewing are: L, 56; ML, 64; MH, 67; H, 65. Minimum ns for the viewing levels in these tables are: L, 52; ML, 63; MH, 60; H, 62.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101%, reading across the tables.

Family Cohesiveness

Table 11 summarizes the results for individual hypotheses on the relationship of family cohesiveness variables to frequency of child television viewing. The results indicate that of 10 variables, none

Table 11. Summary of results for individual hypotheses on the relationship of family cohesiveness variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance accounted for r^2	Variance accounted for Eta^2
Parental permissiveness: Knowledge R whereabouts	-	n.s.	.02	.30	.00	.09
Parental permissiveness: Restriction on hours	-	n.s.	.06	.32	.00	.10
Child-parent communication	-	n.s.	.11	.34	.01	.12
Family togetherness	-	n.s.	.07	.26	.00	.07
Parent orientation	-	<.10	.11	.29	.01	.08
Parent decision making: Who pays bills	+	n.s.	.06	.32	.00	.10
Parent decision making: Who pays allowance	+	n.s.	.06	.26	.00	.07
R home responsibilities	+	n.s.	.09	.32	.01	.10
R knowledge family operation	+	n.s.	-.07	.31	.00	.10
P-R agreement on TV programs	+	n.s.	-.02	.24	.00	.06

are significantly related to frequency of child television viewing. Table 12 (starting on page 91) presents the contingency crossbreaks and chi-square values for each of the 10 predictor variables in this category.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 11) reports the r^2 and Eta^2 or variance accounted for in the criterion by each predictor, using a linear versus curvilinear model. As with the two preceding categories of variables, again we find that a curvilinear model seems to have a better fit with the data. The discrepancy in variance accounted for ranges from a low of 6% to a high of 11%. While the linear r's account for from 0 to 1% of the variance in the criterion, the curvilinear Etas account for from 6 to 12%.

Multiple linear correlation analysis. As would be expected from the non-significant results of the individual hypothesis tests for variables in this category, the multiple R within the category is not significant (R = .22). Assuming a linear model, the 10 family cohesiveness variables either alone in in combination show no predictive power for the criterion variable.

Table 12. Contingency tables and chi-square values for the relationship of family cohesiveness variables to the criterion variable

Predictor variable	Frequency of child television viewing[a]					Chi-square		
	L	ML	MH	H		χ^2	df	p
Parental permissiveness: Knowledge R whereabouts								
Low permissiveness	22%[b]	27	26	25	n = 193	1.76	3	n.s.
High permissiveness	24	19	28	29	58 / 251			
Parental permissiveness: restriction on hours								
Low permissiveness	35%	28	23	14	n = 43	10.03	9	n.s.
Moderately low	18	20	32	30	60			
Moderately high	18	22	30	30	54			
High permissiveness	26	27	19	27	62 / 219			
Child-parent communication								
Low	34%	21	27	18	n = 67	12.95	9	n.s.
Moderately low	17	29	29	24	58			
Moderately high	21	21	27	30	79			
High	12	33	23	31	48 / 252			

Table 12--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Family togetherness								
Low	21%	31	28	21	n = 58	9.85	12	n.s.
Moderately low	30	23	25	23	44			
Medium	19	21	33	28	43			
Moderately high	31	22	28	19	36			
High	15	26	22	36	58			
					239			
Parent orientation								
Neither parent	30%	30	32	8	n = 47	11.55	6	n.s. <.10
One parent	20	27	25	29	101			
Both parents	22	21	23	34	87			
					235			
Parent decision making who pays bills								
One parent	25%	24	26	25	n =168	2.02	3	n.s.
Both parents	17	29	27	27	81			
					249			

Table 12--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Parent decision making who pays allowance								
Neither parent	29%	17	21	33	n = 24	6.93	6	n.s.
One parent	28	24	26	22	111			
Both parents	16	28	26	30	105			
					240			
Respondent's home responsibilities								
Low responsibilities	20%	28	26	26	n = 46	12.23	12	n.s.
Moderately low	34	24	22	20	55			
Medium	19	34	24	23	53			
Moderately high	17	26	24	33	42			
High	19	11	34	31	53			
					249			

Table 12--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Respondent knowledge of family operation								
Low	20%	25	24	31	n = 75	4.39	9	n.s.
Moderately low	21	24	32	24	76			
Moderately high	21	30	21	28	47			
High	28	24	28	20	54			
					252			
Parent-child agreement on television program choices								
Low	21%	26	31	22	n = 125	3.79	6	n.s.
Moderate	24	24	22	30	76			
High	23	30	21	25	47			
					248			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high; H = high. Total n for the tables varies because non-responses on predictor variables were deleted. When total n = 252 (maximum sample size), n's for the varying levels of viewing are: L, 56; ML, 64; MH, 67; H, 65. Minimum ns for the viewing levels in these tables are: L, 52; ML, 53; MH, 52; H, 57.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101%, reading across the tables.

COMMUNITY INTEGRATION

Table 13 summarizes the results for individual hypotheses on the relationship of community integration variables to frequency of child television viewing. The results indicate that of seven variables,

Table 13. Summary of results for individual hypotheses on the relationship of community integration variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance accounted for r^2	Eta^2
P gregariousness	-	n.s.	-.01	.31	.00	.10
R gregariousness: organizations	-	<.02[b]	.11	.30	.01	.09
R gregariousness: peers	-	n.s.	.04	.30	.00	.09
Outside home orientation	-	n.s.	.03	.30	.00	.09
Length of time in community	-	n.s.	-.07	.23	.00	.05
Frequency of attendance at church	-	<.10[b]	.12[a]	.34	.01	.12
R knowledge local & state figures	-	<.10	-.04	.22	.00	.05

[a]Significant at $p < .05$, by r to z transformation test of significance.

[b]While results for this variable are significant or near significant, they are in a direction opposite to that predicted.

five do not reach the criterion level of significance of $p < .05$ in either the X^2 or correlational analysis. These five variables are: parent gregariousness, respondent gregariousness (peers), outside home orientation, length of time in community, and respondent knowledge of local and state public figures. The latter variable nears significance in the X^2 analysis but the distribution of responses is so unclear that no trend conclusions may be drawn. Table 14 (starting on page 99) presents the contingency crossbreaks and chi-square values for each of the 7 predictor variables in this category. Details on the two variables which are significant follow.

Respondent gregariousness: organizations. The X^2 for this variable is significant at $p < .02$ and the r of .11 is near significant at $p < .10$. The correlation suggests the direction of the relationship which is generally positive with higher levels of gregariousness associated with high levels of television usage. However, analysis of the contingency crossbreak indicates that the relationship is not as clear cut as a linear prediction would indicate. The direction of the results is contrary to the hypothesis which suggested that respondent gregariousness would be negatively related to frequency of child television viewing.

As the review of past literature in Chapter II indicated, evidence on the relationship of gregariousness to television viewing is contradictory. Early work suggested that the introduction of television reduced the informal gregariousness of respondents but not the formal

gregariousness or participation in organizations. More recent work has found only non-significant relationships between gregariousness and TV viewing. This history makes the present finding even more incongruous. Unfortunately, an analysis of the distribution of responses in the contingency cross-break (Table 14) is not very helpful. Most of the cell contribution to the significant X^2 comes from only four cells in the 12 cell table, Moderate gregarious respondents are more likely to be very light viewers while high gregarious respondents are more likely to be moderately light viewers. Otherwise, both moderate and high gregarious respondents seem equally likely to be moderately high and high viewers. And, low gregarious respondents are equally likely to fall in any of the four viewing levels.

Frequency of attendance at church. The X^2 for this variable is near-significant at $p < .10$ and the r of .12 is significant at $p < .05$. Again we have a result that runs counter to the hypothesis. While the prediction was that increased attendance at church should go with decreased viewing, the results show the opposite. Greater frequency of church attendance generally goes with greater frequency of television viewing. An explanation of this counter-finding is also difficult to draw. The early television research produced negative and non-significant relationships between absence-presence of television and church attendance. The most recent work has resulted in entirely non-significant findings between church going and amount of viewing. Of course, the significant r is so low (a r of .12 accounts

for only 1% of the variance in the criterion) that an elaborate attempt to rationalize this counter-finding lacks merit.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 13) reports the r^2 and Eta^2 or variance accounted for in the criterion by the predictor, using a linear versus curvilinear model. As with preceding categories of variables, we again find that a curvilinear model better fits the data. The discrepancy in variance accounted for ranges from a low of 5% to a high of 11%. While the linear r's account for from 0 to 1% of the variance in the criterion, the curvilinear Etas account for from 5 to 12%.

Multiple linear correlation analysis. With all 7 community integration variables included in the Multiple R equation, the resulting R equals .18 and is not-significant. Thus, assuming a linear model, the variables in this category do not show significant predictive power for the criterion variable.

Table 14. Contingency tables and chi-square values for the relationship of community integration variables to the criterion variable

Predictor variable	Frequency of child television viewing[a] L	ML	MH	H		Chi-squares χ^2	df	p
Parent gregariousness								
Low	19%[b]	25	36	19	n = 72	8.01	6	n.s.
Moderate	26	19	26	30	74			
High	23	30	21	27	97			
					243			
Respondent gregariousness: organizations								
Low	26%	21	26	27	n = 93	15.72	6	< .02
Moderate	33	19	25	22	63			
High	10	36	28	26	89			
					245			
Respondent gregariousness: peers								
Low	24%	38	19	19	n = 58	11.12	9	n.s.
Moderately low	22	19	25	34	77			
Moderately high	24	24	28	23	74			
High	17	22	35	25	40			
					249			

Table 14--continued

Predictor variable	Frequency of child television viewing L	ML	MH	H		Chi-square X^2	df	p
Outside home orientation								
Low	31%	25	17	28	n = 36	5.31	9	n.s.
Moderately low	21	26	32	21	77			
Moderately high	21	25	27	27	77			
High	21	24	24	31	58			
					248			
Length of time in community								
0 - 3 years	20%	20	32	28	n = 60	2.64	9	n.s.
4 - 6 years	24	22	28	26	58			
7 - 11 years	25	27	24	24	63			
12 or more	24	28	27	22	58			
					239			
Frequency of attendance at church								
Low	23%	34	31	12	n = 68	11.51	6	n.s. (<.10)
Moderate	21	24	26	29	42			
High	21	22	24	33	129			
					239			

Table 14--continued

Predictor variable	Frequency of child television viewing[a] L	ML	MH	H		Chi-square X^2	df	p
Respondent knowledge of local and state public figures								
Low	15%[b]	19	38	28	n = 53	20.80	12	n.s. (<.10)
Moderately low	27	23	33	17	48			
Medium	33	16	18	33	45			
Moderately high	15	27	25	31	51			
High	23	38	19	21	53			
					250			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high; H = high. Total ns for the tables varies because non-responses on the predictor variables were deleted. When total n = 252 (maximum sample size), ns for the varying levels of viewing are: L, 56; ML, 64; MH, 67; H, 65. Minimum ns for the viewing levels in these tables are: L, 52; ML, 58; MH, 63; H, 60.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101% reading across the tables.

SELF ORIENTATION

Table 15 summarizes the results for individual hypotheses on the relation of self orientation variables to frequency of child television viewing. The results indicate that of eight variables,

Table 15. Summary of results for individual hypotheses on the relationship of self orientation variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance accounted for r^2	Eta^2
Number R hobbies	-	n.s.	-.05	.36	.00	.13
Number P hobbies	-	n.s.	-.10	.25	.01	.06
R knowledge: ad slogans	+	n.s.	-.08	.30	.01	.09
R knowledge: TV characters	+	n.s.	.10	.30	.01	.09
R knowledge: math	-	n.s.	-.12[a]	.23	.01	.05
R outside home employment	-	<.01[b]	.19[a]	.37	.04	.14
Number hours R studies	-	n.s.	.01	.27	.00	.07
Frequency R studies in library	-	n.s.	-.02	.30	.00	.09

[a]Significant at least at $p<.05$, by r to z transformation test of significance. Critical values for r's are: $p<.05 = .12$; $p<.01 = .15$; $p<.001 = .19$.

[b]While results of this variable are significant, they are in a direction opposite to that predicted.

six do not reach the criterion level of significance of $p<.05$ in either the X^2 or r analyses. These six variables are: number of respondent hobbies, number of parent hobbies, respondent knowledge of

ad slogans, respondent knowledge of TV characters, number of hours respondent studies, and frequency respondent studies in library. Table 17 (starting on page 107) presents the contingency crossbreaks and chi-square values for each of the 8 predictor variables in this category. Details on the two variables which reach significance follow.

Respondent knowledge levels: math. While the X^2 for this variable is not significant, the r of -.12 is at $p < .05$. If the contingency table for the variable is collapsed to a 4 x 2 (four levels of math knowledge x two levels -- light and heavy -- of viewing), the resulting X^2 is significant at $p < .05$ ($X^2 = 9.34$, df = 3). The distribution of responses in the crossbreak as well as the negative correlation concur that generally lower math knowledge levels go with higher television usage. The hypothesis predicting a negative relationship between these two variables is confirmed.

Respondent's outside home employment. Both the X^2 and the r of .19 for this variable are significant -- the X^2 at $p < .01$, the r at $p < .001$. The direction of the relationship indicates that more frequent employment generally goes with more frequent television viewing. This finding runs counter to the hypothesis which suggested a negative relationship.

Since none of the past television work cited here has looked specifically at this variable it is difficult to place this counter-finding within a context. Child development literature (as noted in Chapter II) has suggested that the child who works outside his home

is more peer-oriented, assertive, and high in drive for recognition. Since these attributes sound much like those applied by Himmelweit (1958) and others to describe the lighter television viewer, a negative prediction was made. It is possible to conjecture, however, that outside home employment for a child goes with such attributes only up to a point. At some high level of outside work, the child may be too busy to make peer contacts and is burdened with responsibilities so that television then becomes a solace. The distribution of responses in the crossbreak for this variable (Table 17) supports this kind of curvilinear relationship. Respondents who don't work at all seem to be higher viewers than respondents who work "when work is available" or occasionally. The respondent who has a steady job, however, is the most likely to be a heavy viewer.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 15) reports both the r^2 and Eta^2 or variance accounted for in the criterion by the predictor, using a linear versus curvilinear model. Again we find that a curvilinear model fits the data better. The discrepancy in variance accounted for ranges from a low of 4% to a high of 12%. While the linear r's account for from 0 to 4% of the variance in the criterion, the curvilinear Etas account for from 5 to 13%.

Multiple linear correlation analysis. Table 16 on the next page reports the results of the multiple R analysis within this variable category.

Table 15. Results of multiple linear correlation analysis for the self orientation variable category

Value of Multiple Correlation (R)		Variables retained after least squares deletion	
With all 8 variables included in equation	With variables retained after least squares deletion	Variable	r to DV
.28[a]	.23[a]	Child's outside home employment	.19[b]
		Knowledge level: math	-.12[b]

[a]The R of .28 is significant at p =<.009; the R of .23 is significant at p =<.001.

[b]The partial r's for these variables are: .20 for child's outside home employment and -.13 for knowledge level: math.

Assuming a linear model, the eight self orientation variables in combination account for approximately 8% of the variance in frequency of child television viewing. Variables were then deleted from the multiple R equation by the least squares deletion criterion. At the end of the deletion process, the resulting Multiple R equalled .23, accounting for 5% of the variance in the dependent variable.

The two variables retained after the deletion process included: child's outside home employment and knowledge level: math. These then are the "best" self-orientation predictor variables of frequency of child television viewing, assuming a linear model.

Table 17. Contingency tables and chi-square values for the relationship of self orientation variables to the criterion variable.

Predictor variable	Frequency of child television viewing[a]					Chi-square		
	L	ML	MH	H		X^2	df	p
Number of respondent hobbies								
None	15%[b]	26	29	29	n = 34	7.45	9	n.s.
One	23	21	29	27	92			
Two	21	23	25	30	56			
Three to Six	23	35	25	17	65			
					247			
Number of parent hobbies								
None	23%	24	27	26	n = 109	6.45	6	n.s.
One	15	25	31	28	71			
Two to Six	32	28	26	14	43			
					223			

Table 17--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Respondent knowledge levels: Ad slogans								
Low	14%	24	29	33	n = 70	9.61	9	n.s.
Moderately low	31	29	16	23	51			
Moderately high	21	27	30	22	60			
High	23	22	30	25	69			
					250			
Respondent knowledge levels: TV characters								
Low	27%	25	25	22	n =131	4.63	3	n.s.
High	17	26	28	29	119			
					250			
Respondent knowledge levels: math								
Low	12%	19	29	40	n = 42	11.51	9	n.s.
Moderately low	23	26	26	26	70			
Moderately high	20	22	33	25	55			
High	25	34	18	22	67			
					234			

Table 17--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Respondent's outside home employment								
Does not work	25%	24	33	18	n = 106	17.68	6	<.01
Works when work is available	22	32	19	26	103			
Has steady job	12	15	29	44	41			
					250			
Number of hours respondent studies								
0 - 1 hour a day	19%	36	24	21	n = 72	6.38	6	n.s.
1 1/2 - 2 hours a day	19	21	28	31	93			
2 1/2 - 4 hours a day	25	23	28	25	69			
					234			

Table 17--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Frequency respondent studies in library								
Never	21%	28	25	26	n = 68	5.89	9	n.s.
Less than once a week	27	26	23	24	82			
Once a week	17	31	28	24	58			
More than once a week	24	14	33	29	42			
					250			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high; H = high. Total n for the tables varies because non-responses on the predictor variables were deleted. When total n = 252 (maximum sample size), ns at the varying levels of viewing are: L, 56; ML, 64; MH, 67; H, 65. Minimum ns for the viewing levels, in these tables are: L, 49; ML, 56; MH 63; H, 54.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101% reading across the tables.

CONSUMER ORIENTATION

Table 18 summarizes the results for individual hypotheses on the relation of consumer orientation variables to frequency of child television viewing. The results indicate that of eight variables, four

Table 18. Summary of results for individual hypotheses on the relationship of consumer orientation variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance accounted for r^2	Eta^2
Number of P money worries	+	<.05	.14[a]	.33	.02	.11
Number of R money worries	+	n.s.	.11	.32	.01	.10
P spend-save orientation	-	n.s.	-.13[a]	.33	.02	.11
R spend-save orientation	-	n.s.	-.04	.27	.00	.07
Family use of credit	+	n.s.	.08	.26	.01	.07
R attitude toward credit	+	n.s.	.15[a]	.27	.02	.07
Variety of R spending	+	<.05	.16[a]	.32	.03	.10
Family shopping orientation	-	n.s.	-.09	.25	.01	.06

[a]Significant at least at $p<.05$, by r to z transformation test of significance. Critical values for r's are: $p<.05 = .12$, $p<.01 = .15$, $p<.001 = .19$.

do not reach the criterion level of significance of $p<.05$ in either the X^2 or r analyses. These four variables are: number of respondent money worries, respondent spend-save orientation, family use of credit, and family shopping orientation. Table 20 (starting on page 115) presents

the contingency crossbreaks and chi-square values for each of the 8 predictor variables in this category. Details on the four variables which reach significance follow.

Number of parent money worries. Both the X^2 for this variable and the r of .14 are significant at $p<.05$. The direction of the relationship is positive with more parental money worries being associated with more frequent child television viewing. The hypothesis predicting a positive relationship is confirmed.

Parent spend-save orientation. While the X^2 for this variable is not significant, the r of -.13 is significant at $p<.05$. The discrepancy between the two statistics is best accounted for by the extensive collapsing necessary for the contingency analysis. Despite the discrepancy, the contingency crossbreak does show a distribution of responses indicative of a negative relationship. There is a tendency for respondents who indicate their parents would "spend" or "spend and save" a windfall of money to be heavier television viewers. On the basis of the significant r, the hypothesis predicting a negative correlation between parental spend-save orientation and frequency of child television viewing is considered confirmed.

Attitude toward credit. Again, the X^2 for this variable is not significant but the r of .15 is at $p<.01$. Despite the lack of significance for the X^2, the contingency table of responses does show a trend toward a positive relationship -- a more favorable attitude toward

credit goes with heavier use of television by respondents. Given the significant correlation, the hypothesis predicting a positive relationship between attitude toward credit and frequency of child television viewing is considered confirmed.

Variety of respondent spending. The X^2 for this variable is significant at $p<.05$ and the r of .16 is significant at $p<.01$. The direction of the relationship is positive, as predicted, with greater variety of respondent spending being associated with more frequent television viewing. The hypothesis for this variable is, therefore, confirmed.

Comparison of linear and curvilinear models. The summary table for this category of variables (Table 18) reports both the r^2 and Eta^2 or variance accounted for in the criterion by the predictor, using a linear versus curvilinear model. Again we find a curvilinear model fits better. The discrepancy in variance accounted for by the linear versus curvilinear models ranges from a low of 5% to a high of 9%. While the linear r's accounted for from 0 to 3% of the variance in the criterion, the curvilinear Etas account for from 6 to 11%.

Multiple linear correlation analysis. Table 19 reports the results of the multiple R analysis within this variable category. Assuming a linear model, the 8 consumer orientation variables in combination account for about 8% of the variance in the criterion

Table 19. Results of multiple linear correlation analysis for the consumer orientation variable category.

Value of Multiple Correlation (R)		Variables retained after least squares deletion	
With all 8 variables includes in equation	With variables retained after least squares deletion	Variable	r to DV
.28[a]	.21[a]	Variety of respondent spending	.16[b]
		Attitude toward credit	.15[b]

[a] The R of .28 is significant at p =<.009; the R of .21 is significant at p =<.003.

[b] The partial rs for the two variables are .16 (variety of respondent spending) and .14 (attitude on credit).

variable. Variables were then deleted from the multiple R equation by the least squares deletion criterion. At the end of the deletion process, the resulting multiple R accounted for 4% of the variance in the dependent variable.

The variables retained in the final R equation were variety of respondent spending and respondent attitude on credit.

Table 20. Contingency tables and chi-square values for the relationship of consumer orientation variables to the criterion variable.

Predictor variable	Frequency of child television viewing[a]					Chi-square		
	L	ML	MH	H		X^2	df	p
Number of parent money worries								
None	29%[b]	30	29	13	n = 63	8.06	3	<.05
One or more	19	25	27	29	182 / 245			
Number of respondent money worries								
None	24%	18	28	30	n = 74	6.73	6	n.s.
One	23	31	26	19	103			
Several	18	25	25	31	71 / 248			
Parent spend-save orientation								
Spend	19%	28	26	28	n = 58	3.90	6	n.s.
Spend and save	19	25	29	27	109			
Save	29	26	23	22	78 / 245			

Table 20--continued

Predictor variable	Frequency of child television viewing L	ML	MH	H		Chi-square X^2	df	p
Respondent spend-save orientation								
Spend	27%	29	19	26	n = 70	9.60	6	n.s.
Spend and save	12	18	35	35	49			
Save	23	26	29	22	123/242			
Family use of credit								
Never	28%	27	24	21	n = 93	5.69	6	n.s.
Almost never	14	25	27	33	51			
Usually, sometimes	20	25	29	26	100/244			
Attitude toward credit								
Unfavorable	26%	32	26	16	n = 38	7.32	6	n.s.
Depends	24	24	28	24	156			
Favorable	15	26	22	37	54/248			

Table 20--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Variety of respondent spending								
Low	30%	24	22	24	n = 75	8.09	3	<.05
High	15	27	31	27	62 / 251			
Family shopping orientation								
Narrow range	17%	24	28	31	n = 71	5.47	9	n.s.
Moderately narrow	21	27	23	28	60			
Moderately wide	23	21	30	25	56			
Wide	25	33	23	19	57 / 244			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH moderately high; H = high. Total n for the tables varies because non-responses on the predictor variables were deleted. When total n = 252 (maximum sample size), ns for the varying levels of viewing are: L, 56; ML, 64; MH, 67; H, 65. Minimum ns for the viewing levels in these tables are: L, 52; ML, 61; MH, 65; H, 62.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101%, reading across the tables.

DEMOGRAPHIC

The final category of predictor variables in this study include the demographic characteristics of the child and his family. Table 21 summarizes the results of individual hypotheses on the relation of demographic variables to frequency of child television viewing.

Table 21. Summary of results for individual hypotheses on the relationship of demographic variables to frequency of child television viewing.

Variable	Prediction	X^2 p	r	Eta	Variance Accounted for r^2	Eta^2
SE status: occupation	-	$<.01$	$-.21^a$	.34	.04	.12
SE status: possessions	-	$<.05$	-.02	.28	.00	.08
Family size	+	n.s.	-.09	.36	.01	.13
Mother's employment	+	n.s.	.03	.35	.00	.12
Family type	-	n.s.	-.06	.34	.00	.12
Birth order	-	n.s.	-.07	.26	.00	.07
Sex	none	n.s.	$.14^a$	.27	.02	.07

[a]Significant at least at $p<.05$, by r to z transformation test of significance. Critical values of r's are: $p<.05 = .12$, $p<.01 = .15$; $p<.001 = .19$

The results indicate that of seven variables, four do not reach the criterion level of significance of $p<.05$ in either the X^2 or correlation analyses. These four variables are: family size, mother's employment, family type, and birth order. Table 23 (starting on page 123) presents the contingency crossbreaks and chi-square values for each

of the seven predictor variables in this category. Details on the three variables which reach significance follow.

Socio-economic status: occupational prestige. Both the X^2 for this variable and the 4 of -.21 are significant at $p<.01$. As predicted, the direction of the relationship is negative with lower levels of status being associated with more frequent child viewing. The hypothesis predicting a negative relationship is confirmed.

Socio-economic status; possessions index. The X^2 for this variable is significant at $p<.05$ but the r of -.02 is insignificant. Analyses of the contingency crossbreak for the variable suggests the reason for the discrepancy between the two statistics. The distribution of responses shows marked curvilinearity. Low levels of status seem to go with higher levels of viewing; moderate levels of status go with lower viewing; and high levels of status go with higher viewing. The hypothesis predicting a negative relationship between this measure of status and frequency of child television viewing is not confirmed. The review of literature in Chapter II provides some basis for explaining the discrepancy in relationship to the criterion variable between this possession index of socio-economic status and occupational prestige which shows a significant negative relationship. A possession index of status logically seems more like an income or ecological measure which past work has shown does not tap the same kind of status as occupational prestige. While the discrepancy in results between the two socio-economic status measures can be partially

explained, the reason for the curvilinear relationship of the possession index to frequency of child viewing is not clear at all. One might conjecture that respondents at the high possession level are more likely to have their own television sets and therefore have more opportunity to view TV. Or, in line with the rationale offered for the consumer orientation category of variables, one might conjecture that a possession index of socio-economic status is a measure which confounds both a family's purely economic buying ability and a family's tendency toward satisfaction of immediate reward needs. This rationale would explain the higher viewing at higher possession levels.

Sex. While the X^2 is not significant, the distribution of responses in the contingency crossbreak supports the positive relationship suggested by the r of .14 ($p<.05$). Boys are more likely to be heavy television viewers than girls. This is an unanticipated finding. No hypothesis was formulated for this variable because prior work has consistently shown non-significant relationships between sex and child viewing (see Chapter II for literature review). The only prior study showing any sex difference was Bailyn (1959). She found boys significantly more exposed to the pictorial media (movies, comics, television) than girls but attributed the difference mainly to greater exposure to comics.

Comparison of linear and curvilinear models. The summary table for this category is variables (Table 21) reports both the r^2 and Eta^2 or variance accounted for in the criterion by the predictors

using a linear versus a curvilinear model. Again we find the curvilinear model provides a better fit. The discrepancy in variance accounted for ranges from a low of 5% to a high of 12%. While the linear r's accounted for from 0 to 4% of the variance in the criterion, the curvilinear Etas accounted for from 7 to 12% of the variance.

Multiple linear correlation analysis. Table 22 reports the results of the multiple R analysis within this variable category.

Table 22. Results of multiple linear correlation analysis for the demographic variable category.

Value of Multiple Correlation (R)		Variables retained after least squares deletion	
With all 7 variables included in equation	With variables retained after least squares deletion	Variable	r to DV
.25[a]	.21[a]	Socio-economic status: occupational prestige	-.21

[a]The R of .25 is significant at $p < .025$; the R of .21 is significant at $p < .001$.

Assuming a linear model, the seven demographic variables in combination account for about 6% of the variance in the criterion variable. Variables were then deleted from the R equation by the least squares deletion criterion. At the end of the deletion process,

the resulting multiple R accounted for 4% of the variance in the criterion variable. The one variable remaining at the end of the deletion process was the occupational prestige index of socio-economic status.

Table 23. Contingency tables and chi-square values for the relationship of demographic variables to the criterion variable

Predictor variable	Frequency of child television viewing[a]					Chi-square		
	L	ML	MH	H		X^2	df	p
Socio-economic status: occupational prestige								
Low	15%[b]	24	28	33	n = 93	21.61	6	<.01
Moderate	17	42	20	22	60			
High	32	18	33	18	85			
					238			

Predictor variable								
Socio-economic status: possession index								
Low	17%	33	17	33	n = 48	17.09	9	<.05
Moderately low	19	32	24	25	75			
Moderately high	35	20	25	20	60			
High	19	18	37	26	68			
					251			

Table 23--continued

Predictor variable	Frequency of child television viewing					Chi-square		
	L	ML	MH	H		X^2	df	p
Family size								
2 - 4 persons	19%	35	22	23	n = 94	9.13	6	n.s.
5 persons	22	22	26	30	77			
6 - 12 persons	26	17	32	25	81 / 252			
Mother's employment status								
Does not work	24%	19	29	27	n =140	7.54	6	n.s.
Works part-time	19	37	22	22	59			
Works full-time	21	28	24	26	53 / 252			
Family type								
One parent family	16%	28	28	28	n = 43	1.08	3	n.s.
Two parent family	23	25	26	25	209 / 252			

Table 23--continued

Predictor variable	Frequency of child television viewing[b] L	ML	MH	H		Chi-square X^2	df	p
Birth order								
First born	20%	29	22	29	n = 92	7.13	6	n.s.
Middle born	27	17	30	26	82			
Last born	21	30	28	21	77			
					251			
Sex								
Girls	26%	23	30	20	n = 119	5.70	3	n.s.
Boys	19	27	23	31	133			
					252			

[a]The criterion variable was collapsed into quartiles as described in Chapter III. L = low viewers; ML = moderately low; MH = moderately high; H = high. Total n for the tables varies because non-responses on the predictor variables were deleted. When total n = 252 (maximum sample size), ns for the varying levels of viewing are: L, 56; ML, 64; MH, 67; H. 65. Minimum ns for the viewing levels in these tables are: L, 51; ML, 62; MH, 66; H, 59.

[b]Percentages have been rounded off and, therefore, may total between 99 and 101%, reading across the tables.

COMPARISON OF MULTIPLE LINEAR CORRELATIONS WITHIN CATEGORIES

Table 24 summarizes the results of the within category multiple linear correlation analyses in terms of variance accounted for by each category of variables.

Table 24. Summary of within variable category multiple linear correlation analyses

Variable category	Variance accounted for	
	By R with all variables within a category included in equation	By R with variables retained after least squares deletion
Parent media use	.14	.12
Respondent media use	.18	.15
Family cohesiveness	.05	.00
Community integration	.03	.00
Self orientation	.08	.05
Consumer orientation	.08	.04
Demographic	.06	.04

From the table above, we find that the two strong classes of predictors are respondent media use and parent media use. Not as strong but still contributing some predictive power are variables in the self orientation, consumer orientation, and demographic categories. Two categories -- family cohesiveness and community integration -- contribute very little to variance accounted for.

RESULTS OF MULTIPLE LINEAR CORRELATION ANALYSIS ACROSS VARIABLE CATEGORIES

Two multiple R analyses were done across variable categories. The first took the "best" predictors from each variable category and included them in one multiple R equation. The second multiple R was computed on all 62 predictor varuables regardless of category.

Multiple R of "best" within category predictors. Each of the 12 variables retained from the within category multiple correlations was included in one multiple R equation. The resulting multiple R equals .50, accounting for 25% of the variance in the criterion variable. Table 25 reports the results of this "best" predictor analysis. Variables were then deleted from the equation by the least squares deletion criterion fully explained in Chapter III. At the end of the deletion process, the resulting multiple R equalled .48, accounting for 23% of the variance in the criterion variable. Of the original 12 "best" predictors, 8 remained. The four which were deleted include: frequency of respondent radio listening, variety of respondent book preferences, respondent knowledge level: math, and variety of respondent spending. The variables retained in the deletion process are listed in Table 25.

Table 25. Result of Multiple linear correlation analysis with "best" predictors from within variable categories

Value of Multiple Correlation (R)				Variables retained after least squares deletion		
With all "best" predictor variables included in equation		With variables retained after least squares deletion		Name	r to DV	partial r
R	R^2	R	R^2			
.50[b]	.25	.48[b]	.23	Amount parent TV viewing	.15	.13
				Variety parent radio use	.31	.20
				Frequency R movie attendance	.17	.17
				Variety R radio use	.25	.13
				Media missed most	.15	.13
				Child's outside home employment	.19	.14
				Attitude on credit	.15	.15
				Se status: occupation prestige	-.21	0.15

[a]This multiple R analysis put all the variables retained after the least squares deletion process for the within variable category analyses into a single equation. See tables 6, 9, 16, 19, and 22 for lists of the variables retained in the within category analyses.

[b]Significant at $p < .0005$.

Multiple R of all 62 predictor variables. When all 62 predictor variables, regardless of category, were included in one Multiple R equation, the resulting R equalled .65, accounting for 42% of the variance in the criterion variable. (See Table 26 on the next page). When variables were deleted by the least squares criterion described in Chapter III, 11 variables remained. The resulting multiple R equalled .54, accounting for 29% of the variance in the criterion variable.

A comparison of this overall multiple R with the analysis of the "best" within category predictors shows a great similarity between them. The differences between the two analyses are most apparent in terms of the size of the multiple R before the least squares deletion process. The 12 "best" predictors from the within category analyses account for 25% of the variance in the criterion while the entire set of 62 predictors regardless of category account for 42% of the variance. After the deletion process, however, the "best" predictor R accounts for 29% of the variance while the "overall" R accounts for 23%. So, in terms of the least squares criterion, the predictive power resulting from either analysis is somewhat comparable.

The other difference between the two analyses is the larger number of variables retained after the least squares deletion in the overall analysis. For the "best" predictors analysis, 8 of the original 12 variables were retained. For the "overall" analysis, 11 of the original 62 variables were retained. Seven of the variables retained in both analysis are identical. These variables are subscripted in Table 26 with a small "a."

Table 26. Result of multiple linear correlation analysis of all predictor variables regardless of variable category

Value of Multiple Correlation (R)				Variables retained after least squares deletion		
With all 62 predictor variables included in equation		With variables retained after least squares deletion		Variable	r to DV	partial r
R	R^2	R	R^2			
.65[c]	.42	.54[c]	.29	[a]Amount parent TV viewing	.15	.14
				[a]Variety parent radio use	.31	.17
				[a]Frequency R movie attendance	.17	.15
				Amount R radio use	.12	.15
				[a]Variety R radio use	.25	.15
				[a]Media missed most	.15	.18
				Frequency church attendance	.12	.15
				Number P money worries	.14	.14
				[a]Attitude on credit	.15	.13
				Shopping orientation	-.09	-.16
				[a]Se status: occupational prestige	-.21	-.16

[a]These variables are 7 of the 8 variables retained for the multiple R analysis of the "best" predictors within variable categories. (See Table 25) The variable -- variety of child's spending -- was retained in that analysis but not in this analysis. The variables not marked with a subscript "a" were not retained in the "best" predictor analysis. Three of these -- shopping orientation, number of parent money worries, and

The fact that both analyses retain seven "common" variables suggests that the logical categorization of variables utilized for this study has some empirical merit.

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frequency of church attendance -- were not among the "best" predictors as determined by the within category multiple Rs. The other -- frequency of respondent radio use -- was among the "best" predictors but was deleted from the final "best predictors" R.

[b]This multiple R put all 62 predictor variables into a multiple R equation regardless of their variable categories.

[c]Significant at $p < .0005$.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

Of the 62 predictor variables in this study, 21 were significantly related to the criterion variable -- frequency of child television viewing. These 21 variables, listed by variable category, were:

Parent media use: The best[1] predictors were amount of parental television viewing and variety of parental radio use. Other significant correlates were variety of parental television viewing and parental news sources. All four variables were positively related to the criterion.

Respondent media use: The best[1] predictors were amount of respondent radio use, variety of respondent radio use, variety of respondent book preferences, frequency of respondent movie attendance, and media respondent would miss most. One additional variable -- respondent preference for comics -- was a significant correlate. All six variables were positively related to the criterion.

Family cohesiveness: None of the variables in this category were significantly related to the criterion.

Community integration: Significant correlates were respondent gregariousness: organizations and frequency of family church attendance.

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[1]These variables are "best" predictors within categories as determined by the multiple R analyses. See later section of this summary for explanation.

Both variables were positively related to the criterion. This category had no "best"[2] predictors.

Self-orientation: The best[2] predictors were respondent knowledge level: math and respondent outside home employment. These two variables were also the only significant correlates in this variable category. The knowledge level variable was negatively related to the criterion; respondent outside home employment was positively related.

Consumer orientation: The best[2] predictors were respondent attitude on credit and variety of respondent spending. Other significant correlates were number of parental money worries and parent spend-save orientation. Parent spend-save orientation was negatively related to the criterion variable; the other three variables were positively related.

Demography: The best[2] predictor was socio-economic status: occupational prestige. Other significant correlates were socio-economic status: possessions index and sex. The best predictor was negatively related to the criterion and the possessions index was curvilinearly related. On the third variable (sex), boys were significantly heavier viewers than girls.

Two statistical measures were used to tap the relationship of each predictor to the criterion variable -- chi-squares and Pearson product moment correlations. Reasons for using both measures were detailed in Chapter II. The variables listed above are those that

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[2]These variables are "best" predictors within categories as determined by the multiple R analyses. See later section of this summary for example.

were significant on one or both of the statistical analyses. The two analyses agreed that 11 of the variables were significantly related to the criterion. Of the remaining 10 variables, 3 were significant only in the chi-square analyses and 7 were significant only in the r analyses. Discrepancies between the two analyses were for the most part small. Thus, if a variable was significantly related in one analysis, the trend was clearly evident in the other analysis. The reasons for the discrepancies between the two analyses were: 1) extensive collapsing, particularly on the criterion variable, for the chi-square analyses, depressing the chi-squares; 2) restriction of range and skewed distributions on predictor variables, depressing the rs; and 3) curvilinear relationships between predictors and the criterion, depressing the rs.

In Chapter II, 51 different hypotheses were formulated. The results confirmed 13 of these and showed significant findings in a direction opposite to that predicted for 6 hypotheses. The variables involved in the 6 counter-findings were:

1) variety of parental radio use;
2) amount of respondent radio use;
3) variety of respondent radio use;
4) respondent gregariousness: organizations;
5) frequency of family attendance at church; and
6) respondent outside home employment.

For all six, hypotheses predicted negative relationships to the criterion variable while findings indicated positive relationships. The hypothesis for one additional variable -- socio-economic status: possessions index -- predicted a negative relationship while findings indicated a significant curvilinear relationship.

One other purpose of this study was to analyze the nature of the relationships existing between the predictor variables and the criterion. For this, correlation ratios or Etas were computed. Variance accounted for in the criterion by the Eta curvilinear correlation was compared to variance accounted for by the linear r. While significance tests were not computed to test the significance of the difference in variance accounted for, inspection of the results shows clearly the Etas account for more variance than the rs. While the linear rs accounted for from 0 to 9% of the variance in the criterion, the curvilinear Etas accounted for from 5 to 18% of the variance. The discrepancy in variance accounted for by the two measures ranged from 4% to 14%. As a tentative conclusion, then, the predictor variables in this study explain more of the variance in the criterion variable with a curvilinear model than a linear model.

Despite the indications of curvilinearity noted above, one purpose of the present study was to do a multivariate prediction of frequency of child television viewing. Since the easiest multivariate method available is the linear multiple regression, multiple Rs were run both within and between variable categories. Results showed that the respondent media use category of variables accounted for the most variance in the criterion (18% with an R of .42). Parent media use variables accounted for the second greatest amount of variance (14% with an R of .37), followed by self-orientation variables and consumer orientation variables) each accounting for 8% of the variance with Rs of .28). Demographic variables accounted for 6% of the variance (with an

R of .25). The multiple Rs for both family cohesiveness and community orientation variables were not significant.

When the least squares deletion criterion was applied to each of the multiple Rs within categories, the variance accounted for was reduced a maximum of 4%. Of the 21 variables significantly related to the criterion by the X^2 and r analyses, 12 remained as "best" predictors within categories after the least squares deletion process. These 12 variables were then included in one multiple R equation. The resulting multiple R equalled .50, accounting for 25% of the variance in the criterion. The least squares criterion was also applied to this multiple R. After the deletion process, the resulting multiple R equalled .48, accounting for 23% of the variance in the criterion. Of the 12 "best" predictor variables included in the equation, 8 remained after the deletion process. These variables were:

1) amount of parental television viewing;
2) variety of parental radio use;
3) variety of respondent radio use;
4) frequency of respondent movie attendance;
5) media respondent misses most;
6) respondent outside home employment;
7) respondent attitude toward credit; and
8) socio-economic status: occupational prestige.

Conclusions

The four purposes of this study were: 1) to replicate much of the past work on correlates of frequency of child television viewing; 2) to go beyond a replication by including some variables which have been partly or wholly overlooked in past work; 3) to extend the analysis to a multivariate method; and 4) to specifically look at the types of

relationships which exist between the criterion variable and its predictors.

Results of this study will be discussed in terms of these four purposes. First, in terms of the replication function, results here seem much like results from the host of prior studies done in the area. After looking at the collective results of the many television-children studies, several researchers (e.g. Meyersohn 1957, Schramm 1961, Himmelweit 1958) termed the overall picture somewhat confusing and inconclusive. Considering the impact that television is popularly thought to have, research results generally show relatively few significant relationships between predictor variables and television use. The present study seems to be no exception. Of 62 predictor variables, 21 are significantly related to the criterion. And, as has been the case in past work, the variance explained by any one predictor is small. Given the best prediction possible (that offered by the curvilinear correlation ratio, Eta) the most variance any one predictor variable accounts for in the criterion is 18%. Since the size of an Eta only indicates variance potentially explainable and says nothing of the nature of the relationship, knowing that 18% of the variance in the criterion may be accounted for by a predictor is not a great deal of information. Some complex type of curve-fitting operation would be needed to fully use this predictive power. With 82% of the variance still unaccounted for, a complex curve fitting procedure doesn't seem to have merit. Given a linear prediction model, the situation is even worse. The best single predictor accounts for only 9% of the variance in the criterion by the r analysis.

Such results really are logical, if not encouraging statistically. Television viewing is obviously a complex behavior and one that can only be viewed within the context of the respondent's total life situation. As researcher after researcher has noted, complex behaviors do not have simple or single causes (e.g. Schramm 1961). One should not expect that any one variable will account for an overwhelming amount of variance in television behavior.

If the problem were just one of low predictive power, the situation might be clearer than it is. But, as one looks at past findings, several confounding trends emerge. First, there are a great many contradictory findings in the literature. A review of the hypotheses stated in Chapter II shows that only one-third of the 51 stated hypotheses were based on clear-cut evidence -- e.g. evidence that agreed on the direction a variable would relate to frequency of child television viewing. For another third of the variables, evidence was contradictory with past work showing a complex of significant and non-significant findings and, in some cases, significant findings in two different directions. For another third of the hypotheses, evidence from past research was sparse or not available. The present study does little to clarify the total picture.

For example, only six of the 21 significant results in the present study agree completely with past work. Thus, this study found these variables related to child television viewing in the same direction as results from prior studies: amount of parental television viewing,

respondent preference for comics, respondent knowledge levels: math, parental news sources, respondent's most missed media, and socio-economic status: occupational prestige.

While past work agreed that such variables as parental permissiveness, family togetherness, respondent library use, respondent hobbies, and respondent knowledge levels should be significantly related to amount of child television viewing, the present results were all non-significant. Clouding the picture even more are the contradictory results obtained in the present study. Most notable of these are the results for radio use variables. The present results show amount and variety of respondent radio use and variety of parent radio use positively related to frequency of child viewing. Yet, past work points to either negative or (according to the most recent findings) non-significant relationships. The current study also finds respondent gregariousness: organizations, and family church attendance positively related to the criterion while past work suggests either negative or non-significant relationships.

Another trend from the past research is the emergence in recent studies of non-significant relationships for variables which in earlier studies were reasonably good correlates of television usage. As an example, we find that recent studies agree that the relationship among various aspects of media usage are tending to be non-significant (Edelstein 1966). Results from the present study generally agree. In addition, the present study showed nothing but non-significant relationships for two major classes of variables -- family cohesiveness

and community integration -- which had, in the past, been somewhat fruitful predictors of television viewing.

Of course, confounding all predictions is the problem of the leap from the many television versus no television studies to correlates of amount of television viewing. Relatively few findings are available that explicitly looked at correlates of amount of viewing. Even fewer findings are available from data collected in the mid-sixties with television at almost 100 percent saturation.

The probable impact of the changing media environment is seen most clearly in terms of a review of the five generalizations derived from past research (outlined in Chapter I). As a brief review, these five generalizations were:

1. The parental imitation generalization: children tend to do what their parents do, all other things being equal.

2. The demographic attributes of the child generalization: certain demographic attributes of the respondent predict his television usage.

3. The functional displacement generalization: the child will sacrifice in lieu of television those activities which satisfy the same needs as television but do so less effectively.

4. The frustration generalization: the more frustrated a child is, the more time he will spend in front of his television set.

5. The information void generalization: television is likely to have an effect on a child's values and outlooks if a) the values and views recur over and over again in TV content; b) the content is linked to the child's needs and interests; c) the form of presentation is

dramatic; and d) the child is not presented through peers or relatives with a standard against which to assess the views offered on television.

Results from this study generally support the parental imitation generalization with amount of parental television viewing and parental socio-economic being two of the "best" predictors. In this respect, the present findings are in agreement with the major studies of the past (e.g. Schramm 1961, Bailyn 1959, Himmelweit 1958).

While generalization #2 -- the demographic attributes of the child generalization -- applies more to television usage changes throughout the childhood years, the present study offers some support. The one variable closest to a measure of intelligence -- respondent knowledge level: math -- is one of the strong predictors, in agreement with past work (Himmelweit 1958, Bailyn 1959). In addition, sex was significantly related to viewing in the current study while all past work found non-significant relationships.

The two generalizations which are least supported by the current study are the functional displacement and frustration generalizations. While the functional displacement generalization should predict results for most of the respondent media use variables, as well as some of the family cohesiveness, community integration, and self orientation variables, we find little support for the generalization in the present study. Past work would suggest that use of such media as radio would be displaced by increased television usage. The present study finds the opposite -- a positive relationship. Past work would suggest that family activity levels and family use of outside home entertainment

should be displaced by increased television usage. The present study finds non-significant relationships for these variables.

These results bring the whole question of what is "functional" to the fore. It appears as if activities which once were "functional" equivalents to television usage may not be any longer. This is most clear with radio usage since radio itself has undergone major changes as a medium since the introduction of television. Within the teenage culture in which popular music is a major focus of concern, there seems no reason to expect that amount of radio use would be displaced by increasing television usage, particularly since popular music is the only radio content for many stations. Various researchers (e.g. Himmelweit 1958, Katz and Foulkes 1962) have warned that inferences about "functional equivalents" can not be safely made without some empirical support. What may be functionally equivalent for one group of respondents may not be for another.

The frustration generalization receives even less support from the present study. As a predictive tool, it should apply to most of the variables measuring family cohesiveness and community integration in this study. Yet, the results show that not a single family cohesiveness variable is significantly related to the criterion. Further, the two significant community integration variables -- respondent gregariousness: organizations, and frequency of family church attendance -- are related positively to frequency of child television viewing while the frustration generalization predicts a negative relationship.

The present results for these two classes of variables are not greatly different from those in past research. In general, variables in these two classes have not yielded a great deal of

predictive power and have resulted in conflicting findings.[1] Particularly in the most recent work, we find warnings that the very same "end" behaviors may be indicative of both frustration and lack of frustration. Katz and Foulkes (1962) emphasize the point. The child who is in conflict with his parents may escape to television; the child who has a harmonious relationship with his parents may watch more television in order to be with his parents. The child with few friends may escape to television; the child with many friends may use television as a means of relating to them. As with the displacement generalization, it seems erroneous to make inferences about underlying reasons for various television behaviors just from the behaviors themselves.

Interestingly, the relationships to the criterion of some of the variables in the consumer orientation category may also be predicted from the frustration hypothesis. For example, to the extent that the respondent sees his parents as worried about money problems, the frustration hypothesis would suggest television viewing would increase. The problem of whether level of parent money worries is an indicant of frustration still remains. Consumer variables, in general, turned out to be among the better predictors in the present study. An equally good rationale based on deferred vs immediate gratification patterns may be derived to explain results. Again, some sort of explicit check of

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[1] Himmelweit (1962) noted the lack of order in results from studies tapping the relationship of various family variables to frequency of child television viewing. She suggested that television may act as a catalyst showing up the characteristic mode of relationships within the family. She concluded, however, that the unclear results in the area stem in part from lack of adequate measures of family variables. Currently used measures seem too superficial to be related to the "core of family life."

inferences about underlying behaviors is called for.

The final "information void" generalization is really tangentially related to the present study. The one variable which seems most clearly related to it -- respondent attitudes on credit -- was significantly related to the criterion variable in the positive direction predicted. Again, however, any inference that the respondent's attitude toward credit is related to an "information void" on credit in his family or peer group might be erroneous. Attitudes toward credit may simply be another indicant of a basic immediate vs deferred gratification pattern.

In sum, the discussion above suggests a major theoretical obstacle in attempts to explain and predict frequency of child usage. Support for the generalizations seems hampered by lack of clarity on the "meaning" of television viewing to the respondent. More will be said about the question of the "meaning" of television at the end of this chapter.

Despite the confusion indicated by the individual hypothesis tests, one encouraging consequent of the present study was the results on some of the "new" variables which were added to it in addition to the variables included mainly for replication purposes. All the variables in the "consumer orientation" category were "new". Four of them were among the 21 variables significantly related to the criterion and one was among the "best" predictors from the overall multiple regression analysis. Another "new" variable which turned up among the strong predictors in this study was respondent outside home employment. These results suggest fruitful areas of expansion. The consumer dimension of the family's behavior, in particular, seems a lucrative area of focus because

of the possible relationship of immediate vs deferred gratification patterns to both consumption behaviors and media behaviors.

Another encouraging result of this study was the fact that the multivariate analysis isolated in its group of "strong predictors" the two predictor variables most often found in past work -- amount of parent television viewing and family socio-economic status (occupational prestige). To this extent, then, the present analysis agrees with past work.

In general, of course, the "strong" predictors in the multiple R analyses are those predictors which were most highly related to the criterion variable in the individual hypothesis tests. Thus, comments made earlier on the results to the individual hypothesis tests apply here.

Another encouraging aspect of the multiple R analyses is the amount of variance that can be accounted for in the criterion given the restrictions of a linear model. The eight "best" predictors account for 23% of the variance. This certainly is not overwhelming but is a sizable increase over the 9% accounted for by the one single variable with the highest correlation (r) to the criterion.

In terms of full explanation of television viewing, however, the restriction of a linear model appears to be a serious one. The analyses of the Eta curvilinear correlation ratios showed that the relationships between the predictors and the criterion are accounted for more fully by a curvilinear than a linear function. As suggested earlier, however, the amount of variance accounted for even with a curvilinear function

is at no point remarkable. The best variable accounts for 18% of the variance in terms of Eta. Thus, any extended foray into plotting curves for the relationships of each predictor to the criterion is certainly not suggested.

However, these results do suggest potential for the use of a multivariate technique that makes no assumptions about the nature of the functional relationship between predictors and the criterion. The size of the Etas obtained suggests that no one variable offers great predictive power but that some complex combination of predictors might. Essentially, this is the kind of question which the multiple R analysis attempts to answer. But, the multiple R assumes linear functions and what is needed is a multivariate technique that makes no such assumption. One possible technique would be a configurational approach, such as the Automatic Interaction Detection (AID) method developed by Sonquist and Morgan (1964).

All the discussion above has suggested different analytic techniques and inclusion of new variables in the attempt to explain and predict the frequency of a child's television viewing. Throughout the discussion an underlying difficulty has been the problem of what generalizations or inferences may be made about the results of a correlational analysis of frequency of child viewing.

The results of this study as well as the more recent discussions by researchers in the area suggest that inferences about the "meaning" of television viewing need to be explicitly checked. As noted earlier, two of the more often cited generalizations on television behavior

require the researcher to make inferences about frustration states in respondents and about functionally equivalent activities. These inferences require that assumptions be made about the "meaning" of television as an activity to respondents. Is television an escape from real world frustration, such as having too few friends? Is television a means of entertaining friends? Is television a substitute for missing communication with parents? Or, is television a means of sharing an activity with parents?

A major difficulty seems to be that, in today's ubiquitous television environment, the very same "end" behavior -- frequency of television viewing -- may have very different meanings for different respondents. This author does not intend to suggest that frequency is not an important or relevant variable. Rather, looking at television viewing as an end unto itself seems incongruous when one considers that television is one artifact in an environment filled with artifacts. Television usage might more logically be seen as a type of intervening variable in the respondent's life. This idea is certainly not new as such researchers as Meyersohn (1957), Himmelweit (1962), Bauer (1964), Schramm (1961), and Troldahl (1965) have all called for an explicit attempt to look at the "meaning" of television exposure. This study seems to make the need even more pressing.

The question would become more complex than what are the correlates of amount of television viewing. Rather, the question would become what are the correlates of various needs of the respondent and how does television (as well as other environmental artifacts) intervene in these relationships.

This approach would require that previously made assumptions about the underlying reasons for behaviors be checked. For example, it would not be assumed that reduced child-parent communication leads to frustration on the part of the child. Either some measure of anxiety would be used or respondent introspections would be collected. These data would allow the development of various typologies of the relationship of child-parent communication to anxiety. Television usage would then be analyzed within the context of these typologies. As another example: varying levels of child gregariousness could be related to varying levels of respondent reports of need for affiliation. Television usage could then be seen within the context of the relationship of actual gregariousness to need for affiliation.

Once these relationships have been established between various respondent and family attributes and resulting needs or states, television usage may be analyzed as it "intervenes" in these relationships.

Frequency of television viewing would still be a meaningful measure. However, given that the very same end behavior -- frequency of viewing - may serve different functions for different respondents, an attempt to tap the "meaning" of television in the child's life would need to go beyond pure quantity measures. Other possible measures include:

1) Respondent introspections on why television is wanted. This approach -- simply asking respondents why they like television in general and why they like certain shows -- has been suggested by Schramm (1961), Troldahl (1965), and others.

2) Quality of respondent viewing. Some work has been done analyzing the content of child viewing. Such a content orientation would be crucial to understanding how the same amount of exposure may serve different purposes for different respondents.

3) Respondent perceptions of TV content. Not only might the same amount of exposure have different meaning for respondents but the same content of exposure might have different meaning. Various researchers (e.g. Schramm 1961, Bailyn 1959) have suggested that two different children viewing the same program will select content which suits their own particular needs.

An important aspect of the search for the "meaning" of television would be the emphasis on the medium as one of many artifacts in the environment. As Katz and Foulkes (1962) have pointed out, if a child has a need to escape a certain kind of frustration, there are many alternative routes for doing so. Analyzing television as one of many intervening artifacts or activities in the childs life seems like one way in which the problem of "functional equivalency" can be attacked. To the extent that different media continually serve as "intervening variables" in the same way, they may well be "functionally equivalent."

Before concluding this chapter, a few cautions must be applied. Conclusions based on the present study face several serious limitations. The most constraining are: 1) the uncertainty of just how the questionnaire was administered to the respondents; 2) the form of measurement of variables in the original questionnaire; and 3) the fact that respondents were all students in one rather homogeneous suburban school system.

In conclusion, the major directions suggested for future research discussed in this chapter have included:

1. The need to include classes of variables (e.g. consumer behavior) previously ignored in attempts to predict child television viewing;

2. The need to use multivariate techniques to predict television viewing;

3. The need to use statistical techniques which make no assumptions about the nature of the functional relationships between predictors and the criterion;

4. The need to look at television viewing as an "intervening behavior" which mediates various respondent and family attributes and respondent needs; and

5. The need to look at aspects of television usage other than quantity -- content of exposure, respondent perceptions of content, and respondent introspections on why they watch television.

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APPENDIX A

ITEMS, CODES, AND INTERJUDGE CODING RELIABILITIES

LISTED BY VARIABLE CATEGORY AND VARIABLE NAME

Table 27. Items, codes and interjudge coding reliabilities listed by variable category and variable name

Variable Category	Variable	Item	Code	Interjudge Coding Reliabilities[a]
Parent media use	Amount of parental television viewing	Do your parents watch television often, sometimes, every once in a while, or never?	3 = often 2 = sometimes 1 = once in while 0 = never	99%
	Variety of parental television viewing	What kind of shows do your parents like best: soap operas, westerns, sports, special events, science fiction, comedies, news, mysteries, dramas?	0 = 8 shows (low to high variety)	98
	Number of television sets in household[b]*	Does your family own a television set? Is the set a portable? If you have more than one, how many are portable?	2 = 2 or more sets 1 = 1 set 0 = no TV set	97
	Amount of parental radio listening	Do your parents listen to the radio often, sometimes, every once in a while, or never?	3 = often 2 = sometimes 1 = once in while 0 = never	99
	Variety of parental radio use	What kind of radio programs do your parents listen to: sports, disc jockey, soap operas, women's, musical, opera, dramas, comedies, news, religious?	0 = 6 types (low to high variety)	96

[a]The measure of interjudge coding reliability used was the percentage agreement index. An index of 100% indicates complete agreement among coders. See Chapter III for explanation.

[b]Starred (*) variables are those that required content analysis of respondent open-ended responses. See Chapter III for explanation.

Table 27--continued

Variable Category	Variable	Item	Code	Interjudge Coding Reliabilities
	Number of newspapers subscribed to	What newspapers do you get in your family -- daily papers, Sunday papers, and weeklies?		
		Number different daily and Sunday papers	0 - 5 papers	95%
		Number different weekly papers	0 - 4 papers	98
	Number of magazines parents read	What magazines do your parents read regularly? Do your parents subscribe to any magazines. If yes: what ones?	0 - 8 magazines	97
	Parental sources of news	Where do you think your parents get most of their news about what's going on in the world -- from talking to people, from television, from newspapers, from magazines, or other?	2 = television 1 = not television	99
	Number of phonographs owned	How many phonographs does your family own?	0 - 8 phonographs	99
Respondent media use	Amount of respondent radio use	How often do you listen to the radio: 4-5 hours a day; 2-3 hours a day; about 1 hour a day; less than 4 hours a week, never?	4 = 3 or more hours a day 3 = 2-3 hours a day 2 = 1 hour a day 1 = less than 4 a week 0 = never	98
	Variety of respondent radio use	What kind of radio programs do you like best: disc jockey shows, sports, soap operas or serials, comedy shows, news programs, other (checklist)?	0 - 5 types (low ro high variety)	97

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	Variety of respondent newspaper use	What sections of the newspaper do you read: sports, magazine, front page, other news, editorial, want ads, columnists, financial page, women's pages, radio-TV section, society news, green sheet, comics (checklist)?	0 - 8 sections (low to high variety)	98
	Number of magazines respondent reads	What magazines do you read regularly?	0 = 8 magazines	98
	Variety of respondent book preferences	What kinds of books do you like best: adventure, love stories, historical novels, non-fiction, science fiction, war stories, animal stories, biographies, mysteries, travel books, comic books, other (checklist)?	0 - 1 types (low to high variety)	96
	Respondent preference for comics	Same as above	2 = checked comics 1 = did not	100
	*Respondent library use	Do you check books out from the public library? If yes, how often?	2 = often 1 = sometimes 0 = never	95
	Frequency respondent movie attendance	How often do you go to the movies: every week, about twice a month, about once a month, seldom, never?	4 = every week 3 = twice a month 2 = once a month 1 = seldom 0 = never	98

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	Variety of respondent record preferences	What kind of records do you like: folk music, rock n roll, instrumentals, vocals, religious, musical comedy, jazz, other (checklist)?	0 = 7 types (low to high variety) 2 =	99%
	Media respondent would miss most	Suppose you could keep only one of the following: a television set, a radio, newspapers, or magazines? Which would you keep?	2 = television 1 = not television	99
	Respondent media credibility ratings	If you heard or read different versions of the same story on the radio or television, in newspapers or magazines...		
	Version 1: Most believed	...which version would you be most likely to believe?	2 = television 1 = not television	99
	Version 2: Least believed	...which version would you be least likely to believe?	Same as above	92
Family cohesiveness	*Parental permissiveness			
	INDEX 1: restrictions on hours	INDEXED BY SUMMING SCORES FOR TWO ITEMS BELOW	01 - 16 (low to high permissiveness)	--
		a) Do you have to be in at a certain hour on weekdays? If yes, what hour?	8 = no deadline 7 = midnight 6 = 11 p.m. 5 = 10 p.m. 4 = 9 p.m. 3 = 8 p.m.	94 2 = 7 p.m. 1 = 6 p.m. or can't go out

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
		b) Do you have to be in at a certain hour on weekends? If yes, what hour?	same as above	97%
	INDEX 2: parent knowledge of respondent's whereabouts	INDEXED BY SUMMING SCORES FOR THREE ITEMS BELOW		
		a) Do you tell your parents where you'll be when you're out after school?	2 = no or sometimes 1 = yes	96
		b) Do you tell your parents where you'll be when you're out in the evenings?	same as above	97
		c) Do you tell your parents where you'll be when you're out on weekends?	same as above	97
	*Child-parent communication (INDEX)	INDEXED BY SUMMING SCORES FOR THE THREE ITEMS BELOW	1 - 7 (low to high communication)	--
		a) Can you talk to your parents about your problems?	3 = yes 2 = sometimes 1 = no	99
		b) Do the grownups in your family ever ask you for your opinion about something they are going to buy or do?	same as above	99

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
		c) If you come in later than you're told, what do your parents do?	3 = listen to explanation 2 = combination 1 = punishment, scolding, etc.	99%
	FAMILY TOGETHERNESS (INDEX)	INDEXED BY SUMMING SCORES FOR THE TWO ITEMS BELOW	01 - 11 (low to high togetherness)	--
		a) Does your family ever do any of the following things together: ball games, movies, shopping, entertain at home, camping, play games, go out to dinner, ride around in car, visit friends and relatives, go to private club (checklist)?	01 - 10 activities	98
		b) Does your family ever work on projects together?	1 = sometimes and often 2 = never	98
	*Parent orientation	What person do you think has done the most for you?	0 = named neither parent 1 = named 1 parent 2 = named both parents	90

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	*Parent domination			
	VERSION 1: bill paying	Who pays the bills in your family?	same as above	95%
	VERSION 2: allowance paying	If some of your spending money is given to you, who gives it to you?	same as above	92
	Respondent's home responsibilities (INDEX)	INDEXED BY SUMMING SCORES FOR THE FOURTEEN ITEMS BELOW	00 - 26 (low to high responsibilities)--	
		Do you help out with the housework at home? If so, what do you do. . . .		
		a) shop for food?	2 = often 1 = sometimes 0 = never	98
		b) take care of younger children?	same as above	98
		c) clean own room?	same as above	97
		d) help clean whole house?	same as above	99
		e) wash family's clothes?	same as above	99
		f) wash own clothes?	same as above	100
		g) iron family's clothes?	same as above	100
		h) iron own clothes?	same as above	100
		i) do yard work?	same as above	98
		j) cook meals?	same as above	98
		k) wash the car?	same as above	99
		l) wash the windows?	same as above	99

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliability
		m) take out garbage?	same as above	98%
		n) shovel snow?	same as above	99
	*Respondent knowledge of family operation (INDEX)	INDEXED BY SUMMING SCORES FOR THE FOUR ITEM BELOW	0 - 4 (high to low knowledge)	--
		a) Do you think your parents worry about money problems	1 = said "don't know" 0 = gave an answer	98
		b) Do you know if your family buys furniture or appliances and then pays in a series of monthly payments over a period of time?	same as above	99
		c) Do you think your parents or guardians owe money for any of the following?	same as above	89
		d) Does anyone in your family have health insurance?	same as above	99
	*Parent-child agreement on television shows	What are your four favorite television shows? What four shows do your parents or guardians watch regularly?	4 = same 4 shows named for both questions 3 = agreed on 3 2 = agreed on 2 1 = agreed on 1 0 = no overlap	91

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding reliabilities
Community integration	Parent gregariousness (INDEX)	INDEXED BY SUMMING SCORES FOR THE TWO ITEMS BELOW	2 - 7 (low to high gregariousness)	--
		a) Do your parents or guardians participate in a lot of community activities?	4 = a lot 3 = some 2 = very few 1 = none	99
		b) Does your family ever do any of the following. . .visit friends and relatives in their homes?	3 = often 2 = sometimes 1 = never	99
	Respondent gregariousness			
	VERSION 1: organizations	Do you belong to any of the following organizations: YWCA, Youth Center, girl Scouts, 4-H, YMCA, Boy Scouts, Boys' Club, Religious youth groups, Job's Daughters, Rainbow Girls, other (checklist)? Are there school clubs or organizations which you belong to and participate in outside regular school hours? If yes, what ones?	1 - 7 different organizations (low to high gregariousness)	96
	VERSION 2: peers (INDEX)	INDEXED BY SUMMING SCORES FOR THE THREE ITEMS BELOW	3 - 8 (low to high gregariousness)	--
		a) Do you have a bunch of friends you hang around with?	2 = yes 1 = no	98

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
		b) Do you ever visit at your friends' homes?	3 = often 2 = sometimes 1 = never	97%
		c) Do you ever stay overnight at your friends' homes?	same as above	99
	Outside home orientation INDEX)	INDEXED BY SUMMING SCORES FOR THE SEVEN ITEMS BELOW: Does your family ever do any of the following. . .	07 - 19 (low to high outside home orientation)	--
		a) go out driving?	3 = often 2 = sometimes 1 = never	97
		b) go to stage plays?	same as above	98
		c) go to music concerts?	same as above	99
		d) go out to dinner?	same as above	98
		e) go to spectator sports?	same as above	98
		f) go to public lectures?	same as above	97
		g) go on picnics?	2 = yes 1 = no	97
	Length of time in community	Where were you born? How long have you lived in this community? 4 and 6	14 = born here 13 = more than 13 yrs. 12 = less than 13 . . . 01 = less than 2 years. 00 = less than 1 year	96

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	Frequency of attendance at church (INDEX)	INDEXED BY SUMMING SCORES FOR THE TWO ITEMS BELOW	2 - 5 (low to high attendance)	--
		a) Does your family ever do any of the following together...go to church?	3 = often 2 = sometimes 1 = never	97%
		b) Does your family attend church or temple regularly as a group?	2 = yes 1 = no	96
	Respondent knowledge of local and state public figures	Who are the people listed below: (a checklist of nine state and local figures which respondents were asked to identify as being connected with the school system, city government, or state government)?	0 - 8 figures identified correctly	94
Self Orientation	Number of respondent hobbies	Do you have any hobbies? If yes, what?	0 - 6 hobbies named	96
	Number of parent hobbies	Do your parents or guardians have any hobbies? If yes, what?	0 - 6 hobbies named	98
	Respondent knowledge levels			
	VERSION 1: TV characters	What are the names of the TV shows in which the following characters or actors participate: (list of 10 character(s) in top television shows of season)?	2 = all correct 1 = 9 or less correct	96

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	VERSION 2: ad slogans	Are you an advertising expert? What products do the following slogans represent (ten fill-in the blank items)?	00 - 10 correct	89%
	VERSION 3: math (INDEX)	INDEXED BY SUMMING SCORES FOR THE FIVE ITEMS BELOW	0 - 5 (low to high math score)	--
		a) To buy a bicycle, Jane had to borrow $50 from her uncle. She agreed to repay the $50 at the end of one year, and also pay her uncle 4% per year for the use of the money. 4% of $50 is _____.	1 = correct answer 0 = incorrect answer	99
		b) In the question above, the principle is _____?	Same as above	100
		c) The interest rate is _____?	Same as above	99
		d) The finance charge is _____.	same as above	99
		e) If Jane could not pay back the $50 until the end of two years, she would have to pay _____ times as much interest for two years as for one.	same as above	100
	*Respondent's outside home employment	Do you have a part-time job? If yes, what kind of work do you do? How often do you work?	3 = works steadily 2 = when available 1 = does not work	95

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	Number of hours respondent studies	About how many hours a day do you study?	8 = more than 4 hrs. 7 = up to r 6 = up to 3 1/2 5 = up to 3 4 = up to 2 1/2 3 = up to 2 2 = up to 1 1/2 1 = up to 1 0 = up to 1/2	97%
	Frequency respondent studies in library	Do you ever study in the library?	4 = everyday 3 = couple times a week 2 = 1 time a week 1 = less than 1 time a week 0 = never	98
Consumer Orientation	Number of money worries			
	VERSION 1: parents	Do you think your parents worry about money problems? What do you think are their biggest money worries: not enough money for food, too many bills in general, too many doctor bills, the rent's too high, not enough money for clothes, father wastes too much money, mother wastes too much money, too many installments (checklist)?	0 - 5 worries checked	94

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	VERSION 2: respondent	What are your real money problems: not enough money for sports, clothes, spending, lunches, going out, school supplies, snacks, records, hobbies (checklist)?	0 - 8 worries checked	97%
	*Spend-save orientations			
	VERSION 1: parents	If someone gave your parents a lot of money, like $1000, what do you think they'd do with it?	3 = save all 2 = spend and save 1 = spend all	99
	VERSION 2: respondent	If someone gave you $20 right now, what would you most want to do with it?	same as above	94
	Family use of credit	Does your family ever buy clothing and then pay in monthly payments over a period of time?	3 = usually 2 = sometimes 1 = almost never 0 = never	99
	Attitude toward credit	Do you think it's a good idea or a bad idea to buy things in installments -- paying for things in a series of monthly payments over a period of time?	3 = good 2 = depends 1 = bad	97

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	Variety of respondent spending	What do you spend your money for: carefare, lunches, clothes, movies, magazines, records, cosmetics, snacks, entertainment, saving, school supplies, charity, hobbies, sports, gifts, other (checklist)?	00 - 15 items checked (low to high variety)	96%
	Family shopping orientation (INDEX)	INDEXED BY SUMMING SCORES FOR THE TWO ITEMS BELOW:	2 - 6 (narrow to wide orientation)	--
		a) Does your family prefer to shop in neighborhood stores or in the big downtown stores or in shopping centers?	3 = cited 3 areas 2 = cited 2 areas 1 = cited 1 area	98
		b) Are the stores where your family usually buys clothing downtown, in your neighborhood, or in shopping centers?	same as above	98

Table 27--continued

Variable Category	Variable	Item	Code	Interjudge Coding Reliabilities
Demography	Socio-economic status			
	*VERSION 1: occupational prestige	Who in your family works? Where does this person works? What does this person do?[a]	00 - 11 (low to high occupational prestige)	93[b]

[a]The measure of occupational prestige used is one developed by Verling C. Troldahl. The scale codes are: 12 = more prestige than a lawyer; 11 = the prestige of a lawyer, sociology professor; 10 - assistant public school superintendent, aircraft instructor for air force, 9 = consulting chemical engineer, grade school teacher; 8 = sales engineer for electronics part company, purchasing agent for electric company; 7 = soil conservation worker, automotive cost accountant manager; 6 = credit manager for advertising service, cost estimator for glass company; 5 = rate clerk for transportation company, offset photographer; 4 = auto mechanic, salesman for thread corporation; 3 = boiler operator for pickle factory, service station operatpr; 2 = waitress, newstand operator; 1 = bean and berry picker, garbage collector; 0 = less prestige than bean and berry picker. In utilizing the scale, coders make a subjective judgment, matching their perception of the prestige of the main wage earner's job to the jobs at the various levels on the scale. (Troldahl 1965)

[b]Reliability criteria on all items except this one was agreement to a precise code. On this item, the criteria was relazed to agreement within a 1 - point range because of the greater degree of subjective judgment involved in coding occupational prestige. See Chapter III for details.

Table 27--continued

Variable category	Variable	Item	Code	Interjudge Coding Reliabilities
	VERSION 2: possessions (INDEX)	INDEXED BY SUMMING SCORES FOR THE FOUR ITEMS BELOW	0 - 4 (low to high status)	--
		a) How many rooms does your family's apartment or house have?	1 = 10 to 17 rooms 0 = 3 to 9 rooms	94
		b) Does your family have a telephone? If yes, how many?	1 = 3 to 8 phones 0 = 1 to 2 phones	96
		c) How many cars do you have in your family?	1 = 2 to 4 cars 0 = 0 or 1 car	96
		d) What is the year of your family's newest car?	1 = 1963 or later 0 = 1962 or older	94
	Family size	With whom do you live (checklist)?	02 - 12 family members	98
	Mother's employment status	Who in your family works? How often do they work?	4 = mother works full-time 3 = part-time 2 = mother does not work	99
	Family type	With whom do you live?	2 = respondent indicated he lived with both parents 1 = other	99

Table 27--continued

Variable Category	Variable	Item	Code	Interjudge Coding Reliabilities
	Birth order	How many brothers and sisters do you have and what are their ages?	4 = respondent is youngest child 3 = middle child 2 = oldest child 1 = respondent is only child	99%
	Sex	Are you a boy or a girl?	2 = boy 1 = girl	100

APPENDIX B

INDEXING PROCEDURES

INDEXING PROCEDURES

General procedure

From the original Wisconsin questionnaire of 212 items, 90 were originally tapped for the purposes of the present study. These 90 items were coded into 146 different initial variables potentially useful to test the hypotheses outlined in chapter II. An a priori decision was made to group items into indexes where such a procedure was warranted. Of the 62 final variables in this study, 13 were indexes created by summing one or more of the original items. The indexing procedure generally involved two steps: 1) first a logical decision was made on what items seemed to be tapping the same behaviors; and 2) the logical decision was tested by computing Pearson product moment correlation matrixes for each set of items that might form an index. Means, standard deviations and code ranges of the original items were also examined so that constructed indexes would be based on items having roughly the same variance and contributing roughly the same weight to the final index.

The correlation matrixes for this index construction operation were computed by deleting all respondents with non-responses on one or both of the items involved in each individual correlation. To establish a criterion for significance a conservative baseline n of 200 was selected to compensate for the varying n's for items. Actual n's for the items used in indexes varied between 229 and 252. At an n of 200, the critical value of r at $p < .05$, using the r to z transformation test of significance, is .14 (McNemar 1962). All tables of correlation matrixes which follow use this criterion for significance. Appendix C reports the code ranges, means, standard deviations, and non-responses counts for all final indexes.

Parental permissiveness indexes

Five items in the original questionnaire seemed to tap various aspects of parental permissiveness. The original wording and codes for the five items are listed in Appendix A. Table 28 below reports the original code ranges, means, standard deviations, and non-response counts for the five items. Table 29 reports the Pearson product moment correlations between the five items.

Table 28: Code Ranges, Means, Standard Deviations, and Non-response Counts For The Five Items Used To Create Two Indexes Of Permissiveness

Item	Code range	Mean[a]	s.d.	Non-responses
Hours on weekdays	0 - 8	4.18	2.09	23
Hours on weekends	0 - 8	4.94	2.28	22
Tell where are after school	1 - 2	1.16	.37	0
Tell where are in evening	1 - 2	1.06	.23	1
Tell where are on weekends	1 - 2	1.13	.33	1

[a] For all five items, the means, medians, and modes were equal.

Table 29: Matrix Of Pearson Product Moment Correlations Between The Five Items Used To Create Two Indexes Of Permissiveness

	(1)	(2)	(3)	(4)	(5)
(1) Hours on weekdays	-				
(2) Hours on weekends	.53	-			
(3) Tell where are after school	.11	.14	-		
(4) Tell where are in evening	.09	.06	.27	-	
(5) Tell where are on weekends	.11	.09	.45	.32	-

Since the correlations for the five items clustered into two major groups, two separate indexes of parental permissiveness were computed.

The first -- restriction on respondent hours -- was created by summing the original scores for items 1 and 2 with any respondent with a non-response on one or both items being recorded as a non-response on the new index. The second index -- parent knowledge of respondent whereabouts -- was created by summing the original scores for items 3, 4, and 5 with any respondent with a non-response on two or more of the items being recorded as a non-response on the new index. A respondent with a non-response on only one item had the original mean for that item plugged in for the computation of his final index score.

Child-parent communication index

Three items in the original questionnaire seemed to tap various aspects of child-parent communication. The original wording and codes for the three items are listed in Appendix A. Table 30 below reports the original code ranges, means, standard deviations, and non-response counts for the three items. Table 31 reports the Pearson product moment correlations between the three items.

Table 30: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Three Items Used To Create An Index Of Child-Parent Communication

Item	Code Range	Mean[a]	s.d.	Non-responses
Talk to parents on problems	1 - 3	2.57	.60	0
Parents ask R opinion	1 - 3	2.54	.67	0
Parent reaction if R comes in late	1 - 3	2.14	.82	6

[a] For all three items, the means and medians were equal but the marginal distributions were skewed with a discrepant mode.

Table 31: Matrix Of Pearson Product Moment Correlations Between The Three Items Used To Create An Index of Child-Parent Communication

	(1)	(2)	(3)
(1) Talk to parents on problems	-		
(2) Parents ask R opinion	.29	-	
(3) Parent reaction if R comes in late	.22	.13	-

To create the child-parent interaction index, scores on the three items were summed. Any respondent with a non-response on only one of the three items had the rounded off mean value for that item plugged into his final index scores. Respondents with non-responses on two or more of the original items received a non-response on the final index.

Family togetherness index

Two items in the original questionnaire seemed to tap the degree of family group activity or family togetherness. The original wording and codes for the items are listed in Appendix A. Table 32 below reports the original code ranges, means, standard deviations, and non-response counts for the items. The Pearson product moment correlation between the two items was .43.

Table 32: Code Ranges, Means, Standard Deviations, and Non-response Counts For The Two Items Used To Create An Index Of Family Togetherness

Item	Code ranges	Mean[a]	s.d.	Non-responses
Family participation in 10 activities	01 - 10	6.14	1.83	8
Family works on group projects	1 - 3	1.92	.68	5

[a] For both items, the means, medians and modes were equal.

The first item -- family participation in 10 activities -- was originally derived from a count of "yes" responses from respondents on which activities his family did together. The second item came from a "never-sometimes-often" response to whether his family worked on projects together. In order not to give the work on projects item undue weight in the final index, the item was converted to a "yes-no" basis by recoding an original response of "sometimes" or "often" as "yes" and (code 1) and an original response of "never" as "no" (code 0). The original scores on item 1 and the recoded scores on item 2 were then summed to create the family togetherness index. Any respondents with a non-response on one or both items was recorded as a non-response on the new index.

Respondent's home responsibilities index

Fourteen items coded from the original questionnaire asked the respondent the frequency with which he handled various home responsibilities such as housekeeping and yard care. The original wording and codes for the items are listed in Appendix A. Table 33 below reports the original code ranges, means, standard deviations, and non-response counts for the 14 items. Table 34 reports the correlation matrix for the set of items.

Table 33: Code Ranges, Means, Standard Deviations, And Non-Response Counts For The 14 Items Used To Create And Index Of Respondent Home Responsibilities.

Item	Code range	Mean[a]	s.d.	Non-responses
(1) Shop for Food	1 - 3	1.06	.55	0
(2) Take care younger children	"	.96[b]	.88	1
(3) Clean own room	"	1.72	.48	0
(4) Help clean whole house	"	1.19	.64	4
(5) Wash family's clothes	"	.36	.56	4
(6) Wash own clothes	"	.50	.65	3
(7) Iron family's clothes	"	.54	.64	4
(8) Iron own clothes	"	.88	.78	3
(9) Do yard work	"	1.43[b]	.70	1
(10) Cook meals	"	.88	.59	3
(11) Wash the car	"	1.07	.67	1
(12) Wash the windows	"	.84	.68	2
(13) Take out garbage	"	1.38[b]	.75	1
(14) Shovel snow	"	1.60	.64	1

[a] All but three of these items had equal means, medians, and modes. The rest (marked with a subscript "b") had roughly equal means and medians but discrepant modes.

Table 34: Matrix Of Pearson Product Moment Correlations Between The 14 Items Used To Create An Index Of Respondent Home Responsibilities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	-													
(2)	.11	-												
(3)	.07	.07												
(4)	.27	-.02	.39	-										
(5)	.27	-.04	.21	.34	-									
(6)	.19	.05	.18	.28	.73	-								
(7)	.13	.08	.23	.38	.46	.44	-							
(8)	.11	.18	.27	.33	.36	.53	.69	-						
(9)	-.02	.00	-.01	-.14	-.11	-.14	-.23	-.24	-					
(10)	.29	.12	.21	.23	.30	.28	.21	.21	.02	-				
(11)	.08	.02	.15	.01	.11	.06	-.10	-.07	.46	.22	-			
(12)	.16	.13	.26	.17	.20	.20	.12	.16	.23	.34	.45	-		
(13)	.03	.03	.08	.05	-.02	-.08	-.17	-.18	.31	-.06	.15	.23	-	
(14)	.01	.03	.02	-.18	-.08	-.06	-.26	-.22	.66	.01	.38	.22	.35	-

An analysis of the correlation matrix in Table 34 indicated that there were generally two clusters of items -- one set of highly interrelated housekeeping-type tasks and one set of highly interrelated yardwork and heavier-type tasks. Approximately seven items fit into the first cluster and seven into the second. Since it seems logical to expect that girls would score more on the first type of task and boys more on the second, it was decided not to separate the 14 items into two separate indexes but to sum across all 14 items. Any respondent with non-responses on three or less of the original items had the rounded off mean values for those items added to his final index score. Respondents with four or more non-responses were recorded as non-responses on the final index.

Respondent knowledge of family operation

Eight items in the original questionnaire tapped the respondent's knowledge about his family's household operation. A typical item asked "do you know how your home is heated?" and was coded simply as "gave an answer" or "don't know". For the four items that were used in this index, the original wording and codes are listed in Appendix A. Table 35 below reports the original code ranges, means, standard deviations, and non-response counts. Table 36 reports the correlation matrix.

Table 35: Code Ranges, Means, Standard Deviations, and Non-response Counts For The Four Items Used To Create An Index Of Respondent Knowledge of Family Operation

Item	Code range	Mean[a]	s.d.	Non-responses
Parent money worries	0 - 1	.40	.49	5
Family use of credit	0 - 1	.35	.48	0
Parent debts	0 - 1	.33	.47	17
Family health insurance	0 - 1	.35	.47	2

[a] For all four items, the means, medians, and modes were equal.

Table 36: Matrix Of Pearson Product Moment Correlations Between The Four Items Used To Create An Index Of Respondent Knowledge Of Family Operation

	(1)	(2)	(3)	(4)
(1) Parent money worries	-			
(2) Family use of credit	.17	-		
(3) Parent debts	.18	.29	-	
(4) Family health insurance	.17	.28	.37	-

To compute the index of respondent knowledge of family operation, scores on the four items in table 35 were summed. Any respondent with a non-response on only one of the original items had the rounded off mean value for that item added to his final index score. Any respondent with more than one non-response was recorded as a non-response on the final index.

Parent gregariousness index

Two items in the original questionnaire tapped aspects of parental gregariousness. The original wording and codes for these items are listed in Appendix A. Table 37 below reports the original code ranges, means, standard deviations, and non-response counts for these items. The two items were correlated .17.

Table 37: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Two Items Used To Create An Index Of Parent Gregariousness

Item	Code range	Mean[a]	s.d.	Non-responses
Participation in community activities	1 - 4	2.57	.87	6
Visiting friends and relatives	1 - 2	2.52	.55	3

[a] For both items, means, medians, and modes were equal.

To create this index, scores on the two items were summed with any respondent having a non-response on one or both of the original items recorded as a non-response on the final index.

Respondent gregariousness index

Five items in the original questionnaire tapped various aspects of the respondent's gregariousness. One of the original items -- a measure of whether the respondent felt he has a close friend -- showed little variance and was deleted. The original wording and codes for the remaining four items is listed in Appendix A. Table 38 below

reports the code ranges, means, standard deviations, and non-response counts for the four items. Table 39 below reports the correlation matrix.

Table 38: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Four Items Tapping Respondent Gregariousness

Item	Code range	Mean[a]	s.d.	Non-responses
Have a bunch of friends	1 - 2	1.69	.46	3
Visit at friends homes	1 - 3	2.58	.53	5
Friends stay at R home	1 - 3	2.02	.63	3
Organizations belong to	1 - 7	2.08	1.37	7

[a] For all four items, means, medians, and modes were equal

Table 39: Matrix Of Pearson Product Moment Correlations Between The Four Items Tapping Respondent Gregariousness

		(1)	(2)	(3)	(4)
(1)	Have a bunch of friends	-			
(2)	Visit at friends homes	.21	-		
(3)	Friends stay at R home	.18	.42	-	
(4)	Organizations belong to	.28	.12	.14	-

Because the item measuring the number of organizations to which the respondent belong was not significantly related to one (and related only barely to another) of the other three items tapping more informal behaviors, the organization measure was excluded from this index. However, it was left in the final analysis for this study and is listed in Appendix A as version 1 of the variable, respondent gregariousness. Verson 2 of this variable is the index that resulted from summing scores on the three remaining items in Table 39. In computing

this index, any respondents with non-responses on only one of the three original items had the rounded off mean value for that item added to his final index score. Any respondent with non-responses on two or more of the items was recorded as a non-responses on the final index.

Outside home orientation index

Eight items drawn from the original questionnaire tapped the degree to which the respondent's family uses outside home resources for relaxation, entertainment, and education. One of the original items -- frequency of attendance at taverns -- lacked variance and was deleted. The seven remaining items are listed with their original wordings and codes in Appendix A. Table 40 below reports the code ranges, means, standard deviations, and non-response counts for the seven items. Table 41 reports the correlation matrix.

Table 40: Code Ranges, Means, Standard Deviations, and Non-response Counts For The Seven Items Used To Create The Outside Home Orientation Index.

Item	Code ranges	Mean[a]	s.d.	Non-responses
Go out driving	1 - 3	2.13	.63	4
Go to plays	1 - 3	1.69	.61	5
Go to concerts	1 - 3	1.64	.64	2
Go out to dinner	1 - 3	2.24	.57	2
Go to sport events	1 - 3	2.06	.68	6
Go to lectures	1 - 3	1.41	.57	7
Go on picnics	1 - 2	1.66	.47	8

[a] For all seven items, means, medians, and modes were equal.

Table 41: Matrix Of Pearson Product Moment Correlations For The Seven Items Used To Create The Outside Home Orientation Index

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	Go out driving	-						
(2)	Go to plays	.05	-					
(3)	Go to concerts	.04	.46	-				
(4)	Go out to dinner	.23	.27	.17	-			
(5)	Go to sport events	.18	.12	.05	.29	-		
(6)	Go to lectures	.08	.37	.51	.16	.08	-	
(7)	Go on picnics	.31	.02	.20	.19	.14	.14	-

To create the outside home orientation index, scores on the seven items were summed. Any respondent with non-responses on one or two of the items had the rounded off mean values for those items added to his final index score. Any respondents with three or more non-responses was recorded as a non-response on the final index.

Frequency of attendance at church index

Two items drawn from the original questionnaire tapped the frequency of the family's attendance at church. The original wordings and codes for the items are listed in Appendix A. Table 42 below reports the code ranges, means, standard deviations, and non-response counts for the items. The two items were correlated .53.

Table 42: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Two Items Used To Create The Frequency Of Church Attendance Index

Item	Code range	Mean[a]	s.d.	Non-response
Frequency attend church together	1 - 3	2.52	.69	6
Attend church regularly	1 - 2	1.64	.49	8

[a] For both items, means, medians, and modes were equal.

To create this index, scores on the two items were summed with respondents with non-responses on one or both items recorded as non-responses on the final index.

Respondent knowledge level: math index

Nine items drawn from the original questionnaire required the respondent to use his knowledge of math. Two of these items were deleted because the items were too difficult and variance was low. Two additional items were deleted because they did not relate significantly either to each other or the remaining five items. The wording and codes for the remaining five items are listed in Appendix A. Table 43 below lists the code ranges, means, standard deviations, and non-response counts for these items. Table 44 reports the correlation matrix.

Table 43: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Five Items Used To Create The Math Knowledge Level Index.

Item	Code range	Mean[a]	s.d.	Non-response
Percentage problem	0 - 1	.30	.46	12
Principle problem	0 - 1	.28	.45	12
Interest rate problem	0 - 1	.43	.49	12
Finance charge problem	0 - 1	.10	.31	12
Late payment problem	0 - 1	.71	.46	18

[a] For all five items, means, medians, and modes were equal.

Table 44: Matrix Of Pearson Product Moment Correlations Between The Five Items Used To Create The Math Knowledge Level Index

		(1)	(2)	(3)	(4)	(5)
(1)	Percentage problem	-				
(2)	Principle problem	.26	-			
(3)	Interest rate problem	.23	.61	-		
(4)	Finance charge problem	.50	.48	.37	-	
(5)	Late payment problem	.26	.14	.17	.16	-

To create the math index, scores on the five items were summed. Any respondent with a non-response on any of the five items was recorded as a non-response on the final index. Mean values were not filled in for any items on this index because the original coding operation eliminated many "blank" answers which ordinarily would have been coded as non-responses. Thus, in the original coding, coders were instructed to treat as "incorrect" any blank answers for respondents who had obviously attempted to complete the entire math section.

Family shopping orientation index

Two items drawn from the original questionnaire tapped the degree to which the family utilized a greater number of shopping areas in the Milwaukee area. Original wording and codes for the items are listed in Appendix A. Table 45 below lists the code ranges, means, standard deviations, and non-response counts for the items. The correlation between the two items was .24.

Table 45: Code Ranges, Means, Standard Deviations, And Non-response Counts For The Two Items Used To Create The Family Shopping Orientation Index

Item	Code range	Mean[a]	s.d.	Non-response
General shopping preference	1 - 3	1.76	.91	6
Preference for clothing stores	1 - 3	1.73	.71	2

[a] For both items, means, medians, and modes were equal.

To create this index, scores on the two items were summed with any respondents having non-responses on one or both items recorded as non-responses on the final index.

Socio-economic status: possession index

While the original survey asked respondents to estimate their family income, few of the respondents were able to do so. Thus, this index was created in an attempt to tap a more ecologically and economically based measure of socio-economic status than is provided by measures of occupational status (although a measure of occupational status is part of the final analysis in the present study). Six items from the original survey asked respondents for indications of the size of their homes, age of their newest car, and so on. Two of the original measures (kind of dwelling and frequency of maid service) were deleted because of the lack of variance. The wordings and codes for the remaining four items are listed in Appendix A. Table 46 below reports the code ranges, means, standard deviations, and non-response counts for these four items. Table 47 reports the correlation matrix.

Table 46: Code Ranges, Means, And Standard Deviations For The Four Items Used To Create The Socio-Economic Status Index Of Possessions

Item	Code range	Mean[a]	s.d.	Non-response
# of rooms in household	03 - 17	9.17	2.57	1
# of phones in household	00 - 08	2.29	1.27	4
# cars in family	00 - 04	1.50	1.65	0
age of newest car	00 - 12	8.83	2.80	8

[a] For all four items, means, medians, and modes were equal.

Table 47: Matrix Of Pearson Product Moment Correlations Between The Four Items Used In Creating The Socio-economic Status Index Of Possessions

	(1)	(2)	(3)	(4)
(1) # of rooms	-			
(2) # of phones	.47	-		
(3) # of cars	.25	.36	-	
(4) age newest car	.27	.29	.46	-

Because of the varying code ranges of the four items involved, each item was recoded to provide comparable ranges. To accomplish this, a median split was made on the four items and low values were recoded to 0, high values to 1. These recoded values of each item were then summed to compute the final index. Respondents with a non-response on one item had the mean value for that item (recoded per the median split) added to his final index score. Respondents with more than one non-response were recorded as non-responses on the final index.

APPENDIX C

CODE RANGES, MEANS, STANDARD DEVIATIONS, AND NON-RESPONSE COUNTS LISTED BY VARIABLE CATEGORY AND VARIABLE NAME.

TABLE 48 Code ranges, means, standard deviations, and non-response counts, listed by variable category and variable name.

Variable category and name	Code Range	Mean[c]	s.d.	Number of non-responses
Parent media use				
Amount of parent television viewing	0- 3	2	0.8	0
Variety of parent television viewing	0- 8	3	1.5	2
Number of TV sets in household	0- 2	2[a]	0.5	3
Amount of parent radio listening	0- 3	2[b]	0.8	0
Variety of parent radio use	0- 6	2	1.3	4
Number of newspapers subscribed to	----	---	---	----
Version 1: weeklies	0- 5	1	0.7	0
Version 2: dailies	0- 4	1	0.7	0
Number of magazines parents read	0- 8	3	1.6	5
Parental sources of news	1- 2	1	.5	1
Number of phonographs owned	0- 8	2	1.2	2
Respondent media use				
Amount of respondent radio use	0- 4	2[b]	1.1	4
Variety of respondent radio use	0- 5	1[a]	0.9	6
Variety of respondent newspaper use	0- 8	5	1.7	1
Number of magazines respondent reads	0- 8	2	1.6	8
Variety of respondent book preferences	1-11	4	1.9	1
Respondent preference for comics	1- 2	1	0.5	1
Respondent library use	0- 2	1	0.6	5
Frequency respondent movie going	0- 4	2[b]	0.9	2
Variety respondent record preferences	0- 7	3	1.4	1
Media respondent would miss most	1- 2	2	0.5	5
Respondent media credibility ratings	----	---	---	----
Version 1: Most believed media	1- 2	2	0.5	2
Version 2: Least believed media	1- 2	1	0.3	2
Family Cohesiveness				
Parental permissiveness	----	---	---	----
Index 1: restriction on hours	1-16	9	3.5	33
Index 2: knowledge R whereabouts	3- 6	3	0.7	1
Child-parent communication index	1- 7	6[b]	1.2	0
Family togetherness index	1-11	7	1.9	13
Parent orientation	0- 2	1	0.9	17
Parent domination	----	---	---	----
Version 1: who pays bills	0- 2	1	0.5	3
Version 2: who pays allowance	0- 2	1	0.6	12
Respondent's home responsibilities index	0-26	14	4.0	3
Respondent's knowledge of family operation index	0- 4	1	1.2	0
Parent-child agreement on TV shows	0- 4	1[b]	0.9	4

[a]While all variables are measured continuously, the appropriate measure of

Variable category and name	Code Range	Mean	s.d.	Number of Non-responses
Community Integration				
Parent gregariousness index	2- 7	5[b]	1.1	9
Respondent gregariousness	----	---	---	----
Version 1: organizations	1- 7	2	1.3	7
Version 2: peer index	3- 8	6	1.2	3
Outside home orientation index	7-19	13	2.3	4
Length of time in community	0-14	7[b]	4.6	13
Frequency of attendance at church index	2- 5	5[a]	1.0	13
Respondent knowledge local & state figures	0- 8	4	1.9	2
Self Orientation				
Number of respondent hobbies	0- 6	2[b]	1.4	5
Number of parent hobbies	0- 6	1[b]	0.9	29
Respondent knowledge level s	----	---	---	----
Version 1: TV characters	1- 2	1	0.5	2
Version 2: Ad slogans	0-10	7[a]	1.9	2
Version 3: Math index	0- 5	2[b]	1.4	18
Respondent's outside home employment	1- 3	2[b]	0.7	2
Number of hours respondent studies	0- 8	3	1.9	18
Frequency respondent studies in library	0- 4	1	1.1	2
Consumer Orientation				
Number of money worries	----	---	---	----
Version 1: parents	0- 5	1	0.9	7
Version 2: respondent	0- 8	1	1.5	4
Spend-save orientations	----	---	---	----
Version 1: parents	1- 3	2	0.9	7
Version 2: respondent	1- 3	3[a]	0.7	10
Family use of credit	0- 3	1[b]	1.1	8
Attitude toward credit	1- 3	2	0.6	4
Variety of respondent spending	0-15	7[b]	3.1	1
Family shopping orientation index	2- 6	3[b]	1.3	8

central tendency depends, of course, on the shape of the distribution of responses. Those "mean" values followed by a subscript "a" actually represent the modal and median value. Those "mean" values followed by a subscript "b" actually represent the mean and median value. For all other variables, the means, medians, and modes were the same.

Variable category and name	Code Range	Mean	s.d.	Number of Non-responses
Demography				
Socio-economic status	----	---	---	----
Version 1: occupational prestige	0-11	6	2.5	14
Version 2: possession index	0- 4	2[b]	1.3	1
Family size	2-12	5	1.5	0
Mother's employment status	2- 4	3[b]	0.8	0
Family Type	1- 2	2	0.4	0
Birth order	1- 4	3	0.9	1
Sex	1- 2	2	0.5	0
Criterion variable				
Amount of respondent television viewing (Standard Scores)	24.2-81.4	50	9.8	0