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ABSTRACT

This report summarizes the present state of knowledge about the effects of television advertising on children. After a discussion of children's television viewing patterns, the report reviews the existing research relevant to such issues as children's ability to distinguish commercials from program material; the influence of format and audiovisual techniques on children's perceptions of commercials; the effects of characters in commercials, self-concept appeals, premium offers, food advertising, the volume and repetition of commercials, and medicine advertising; violence and unsafe acts in commercials directed to children; the effects of television advertising on consumer socialization; and television advertising and parent/child relations. The report then makes recommendations for future research. Appendixes present evaluations of 21 individual studies, a statistical profile of the national research resources currently available for relevant studies, and the children's advertising guidelines issued by the National Association of Broadcasters Code Authority. A bibliography of relevant publications is included. (GW)

Research on the Effects of Television Advertising on Children

A Review of the Literature and Recommendations for Future Research

Report prepared for:
NATIONAL SCIENCE FOUNDATION
Research Applications Directorate
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Division of Advanced Productivity Research and Technology

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CONTENTS

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EXECUTIVE SUMMARY

The effects of television advertising on children have been a matter of concern for over a decade That children are a special audience deserving of special protection was formally recognized by the television industry in 1961, when the National Association of Broadcasters adopted its Toy Advertising Guidelines The NAB subsequently expanded its self-regulatory guidelines to include all categories of television advertising intended primarily for children Consumer advocacy groups, including Action for Children's Television and the Council on Media, Merchandising and Children, have raised numerous issues over the past few years related to advertising and children Partly in response to complaints from these organizations, the Federal Communications Commission and the Federal Trade Commission have considered such issues as the amount of advertising to children, the use of hero figures or program personalities as product presenters, and the use of premium offers in commercials In 1975, a second self-regulatory code for advertisers was established through the Children's Advertising Guidelines of the Council of Better Business Bureaus' National Advertising Division (NAD)

Academic research on the effects of television advertising on children is relatively recent. However, policymakers both inside and outside government seem to be giving increasing recognition to the value of empirical studies in this field The results of research have already had some impact on policymaking; e g., generally, in the formulation of the NAD's 1975 guidelines for advertising to children, and more specifically, in the recent FTC consideration of the use of premiums in children's advertising

The report summarized here was supported by the RANN Program of the National Science Foundation to assess the current state of knowledge about the effects of television advertising on children and to recommend further research to fill gaps in that knowledge. Because of the limited amount of existing research, we have not attempted in this report to reach definitive verdicts on all of the effects of advertising on children The current state of knowledge is still inadequate in some areas, but is sufficient in others to provide meaningful guidance to policymakers

The report has four components

(1) identification of major policy issues of current interest,

(2) review of existing research organized around these issues,

(3) recommendations for future policy-relevant research; and

(4) compilation of a national roster of researchers on television advertising and children.

Two major conclusions emerge from our review. The first is a general evaluation, based on the available evidence, of the impact of television advertising on the child viewer The second relates to the role of research in policymaking.

First, it is clear from the available evidence that television advertising *does* influence children. Research has demonstrated that children attend to and learn from commercials, and that advertising is at least moderately successful in creating positive attitudes toward and the desire for products advertised. The variable that emerges most clearly across numerous studies as a strong determinant of children's perception of television advertising is the child's age. Existing research clearly establishes that children become more skilled in evaluating television advertising as they grow older, and that to treat all children from 2 to 12 as a homogeneous group masks important, perhaps crucial differences. These findings suggest that both researchers and policymakers give greater attention to the problems of younger viewers, since they appear to be the most vulnerable.

From a policy standpoint, the most immediately relevant research is that which either documents the effects of specific advertising practices alleged to be misleading or unfair to children's perceptions, or which tests the efficacy of regulatory provisions in preventing such abuses. To cite a single example of the latter, several recent studies have shown that children's ability to understand and remember disclaimers required by industry codes (e g., "some assembly required" for a toy) is related to how the disclaimer is worded and presented

Second, in terms of the role of research in policymaking, we recognize that research, no matter how extensive and well conducted, will inevitably be but one element in determining policies and practices. Ethical, legal, economic, and political considerations will continue to demand attention Nevertheless, policies formulated in the absence or ignorance of research findings run the risk of being inappropriate, ineffective, or unfair. Thus, research can guide policy by providing concrete information on the actual impact of television advertising on children. In the long run, such research can provide essential factual guideposts for directing policy toward adequate safeguards against economic exploitation of these young viewers.

The following sections summarize our identification of policy issues, review of existing research, and recommendations for future research A national research roster is described in Appendix B.

IDENTIFICATION OF THE ISSUES

We structured this review of existing research around specific policy issues. This allowed us not only to evaluate research technically but to discuss its relevance to policy concerns as well.

To develop our list of issues, we surveyed major policy statements from government, industry, and consumer groups. A preliminary list drawn from these statements was then circulated for comment to advertisers, politicians, regulators, industry groups, consumer groups, and academics, and a number of key individuals were also personally interviewed.

These responses revealed several obstacles to drawing up our final list of issues. There was no universal consensus on what the "real" policy issues are, nor on the definition of "children's advertising." Since existing industry codes apply only to commercials shown during programs intended primarily for children, this means that they apply only to Saturday morning television and a few other programs (e.g., Captain Kangaroo, ABC's Afterschool Specials) However, these programs account for no more than 15 percent of the weekly television viewing of children 2-12 years old. Therefore, we included issues encompassing all advertising to which substantial numbers of children are exposed, not just to commercials specifically intended for children and shown within children's programing

Other problems arose when groups or individuals stated their concerns too broadly or too vaguely to be amenable to empirical testing. Thus, issues were often incompletely stated, alleging an effect without a specific cause (e.g., "children cannot understand commercials"), or a cause withour a specific effect (e.g., "premium offers are unfair"). As far as possible, we have stated issues as connections between specific advertising practices and specific outcomes (including where appropriate such mediating variables as age, sex, race, or level of viewing). Other issues may be legitimate but are probably matters for value judgment, not empirical testing.

Given these considerations, we derived our final list of ten issues which (a) were of greatest interest to the parties involved; (b) were amenable to empirical testing; and (c) offered some prospect of concrete policy action based on empirical findings. The first seven issues deal with particular advertising practices which might be altered if empirical evidence were to suggest that alteration is advisable. These are:

1. Children's ability to distinguish television commercials from program material.
2. The influence of format and audio-visual techniques on children's perceptions of commercial messages.
3. Source effects and self-concept appeals in children's advertising.
4. The effects of advertising containing premium offers.
5. The effects of violence or unsafe acts in television commercials
6. The impact on children of proprietary medicine advertising.
7. The effects on children of television food advertising

Three other issues deal with possible longer term consequences of exposure to television advertising, or with mediators of the effects of advertising on children:

8. The effects of volume and repetition of television commercials.
9. The impact of television advertising on consumer socialization.
10. Television advertising and parent-child relations.

REVIEW OF RESEARCH

Existing research can and does document effects on children of a variety of specific advertising practices. Future studies will undoubtedly provide additional information on these effects However, whether a particular effect should be considered "positive," "negative," or "neutral" is not a question that can be resolved by empirical research, but is a matter to be determined by the judgment of policymakers (For example, research may demonstrate that awareness of a premium offer presented in a commercial plays a significant role in some children's product choices But whether or not the premium itself is considered a "legitimate" product attribute is a matter of opinion.)

At present, no single, widely accepted conceptual or theoretical framework exists for determining the policy implications of empirical research results. There are, to be sure, several broad principles on which current regulations are based. The FTC has a legislative mandate to ensure that advertising (including advertising to children) be neither "deceptive" nor "unfair"; the NAD guidelines are intended to "ensure that advertising directed to children is truthful, accurate, and fair to children's perceptions." These are admirable standards, but if future research is to be designed with clear policy relevance, these principles will have to be defined in specific, operational terms. Even then, interpretation of empirical results will still, ultimately, involve value judgments by policymakers In the following summaries, we have indicated, where appropriate, which matters have been or can be addressed by research and which cannot.

1. Program-Commercial Separation

Analysis. The FCC and the NAB have recognized that children may have difficulty in distinguishing commercials from program material. The NAB code now requires broadcasters to use "an appropriate device" to separate commercials from surrounding programs in children's program hours.

Evidence. A number of studies have documented that children under eight years of age have substantial difficulty in comprehending the difference in purpose between commercials and programs. One apparent indicator of this is that younger children's visual attention declines less when commercials appear than does that of older children Visual attention measures, however, are not a sufficient indicator of children's distinguishing abilities; other, more direct measures must be used during actual viewing of televised sequences. Audio and video separation devices used by the major networks have not been tested, although a study of a verbal announcement as a separation device (used by some Post-Newsweek stations) found that it did not alter young children's visual attention patterns. The effectiveness of various separation devices in aiding children's ability to distinguish commercials from programs is an open question at this point.

2. Format and Audio-Visual Techniques

Analysis. Many audio-visual techniques in commercials are simply aimed at gaining and holding children's attention, policy issues arise over effects other than attention. Visual techniques which have drawn regulatory attention are those which tend to misrepresent the appearance of children's products of exaggerate product performance. Descriptions of product characteristics (e.g., energy claims) and children's understanding of required disclaimers or accessory disclosures are also at issue.

Evidence. Visual or verbal misrepresentations and exaggerations are regarded as deceptive *per se* and their use prohibited accordingly, without any need to document actual deception experienced by children. However, little is known about children's comprehension of product claims presented via techniques that are easily understood by adults. Even older children have been shown to have difficulty understanding certain types of claims: notably superlatives, comparatives, and parity claims. Research on audio and video disclaimers report the predictable but important findings that video disclaimers alone are insufficient for younger, nonreading children, that dual audio-video claims communicate most effectively, even for older children; and that simplified wording significantly affects comprehension. This research should lead to tighter regulation of disclaimers, an area which is already quite well regulated.

3. Source Effects and Self-Concept Appeals

Analysis. Characters as well as products appear in most children's commercials. Existing policy prohibits the use of certain characters as product presenters, e.g., celebrities and authority figures,

and prohibits the use of program characters as presenters in commercials within or adjacent to their own programs ("host selling"). Other presenter characteristics, particularly race, sex, and occupation, may contribute to the development of socially stereotyped perceptions This topic also includes self-concept appeals, which promise or imply personal benefits to children from use or ownership of the product.

Evidence. A number of studies have demonstrated that the mere appearance of a character with a product can significantly alter children's evaluation of the product with the evaluation shifting positively or negatively, depending on children's evaluation of the "endorser." This raises a potential fairness issue as to whether endorsement should be regarded as a legitimate basis for promoting products to children.

The single available study on the "host selling" issue suggested that in-program placement of a commercial containing program characters was no more effective in stimulating children's desire for the product than nonadjacent placement. Only one commercial was tested, however. The broader issues of whether character usage in commercials contributes to social stereotypes remains unresolved The potential for stereotyping is apparent from content analyses of sex and race representation in children's commercials, and secondary research (on television programs) has demonstrated that stereotyped beliefs result from heavy exposure to television programming among adults. Finally, self-concept appeals also have not been well researched. Although certain appeals undoubtedly imply benefits to children's health or social status, none of the few studies on this topic has actually incorporated self-concept measures

4. Premiums

Analysis. Premiums are heavily employed in commercials for certain children's products, notably cereals. The FTC has alleged that premiums are an irrelevant product characteristic, that they distract children from considering legitimate product attributes, and that they multiply the difficulty of choice between brands. Defenders argue that premiums may actually facilitate the choice between otherwise fairly similar brands, and that premiums constitute a legitimate product attribute since they are part of the "total product package "

Evidence. The allegation that premiums are an irrelevant product characteristic is a value judgment and not amenable to empirical testing. On the other hand, we can test the allegations that premiums distract children from considering legitimate product attributes and that they multiply difficulty of choice between brands. Only the first of these allegations has been tested, and only on a limited basis Results suggest that inclusion of a premium in a commercial does not seem to distract children from c - product attributes (as measured by recall of the content of the commercial), nor does the premium appear to increase children's evaluation of the product. These negative results should be interpreted with caution, however, as they are based primarily on a single study in which only one commercial was tested. The issue of whether premiums increase difficulty of choice between brands or facilitate choice by differentiating the total product package has not been investigated

5. Violence and Unsafe Acts

Analysis Although violence and unsafe acts appear infrequently in commercials directed to children, they warrant special attention because of the potential seriousness of the effects that may be involved. A major issue is whether cartoon or make-believe violence, the types most likely to be used in commercials, are harmless compared with realistic violence. A largely unrecognized issue is the potentially interactive role of commercials during violent programs. The main issue concerning unsafe act portrayals is whether they are justified in certain circumstances, such as safety messages or public service announcements.

Evidence. Children as young as four years old seem to be able to distinguish realistic from make believe or cartoon violence. Despite many neutral or equivocal outcomes, and despite a tendency for weaker effects when the violence is animated, post-viewing aggression has sometimes been demonstrated with all three types of portrayals. Although the extent of antisocial behavior attributable to television violence is still unclear, there seems to be sufficient risk in this type of content to support current code prohibitions on appeals to violence in commercials directed to children Commercials, in general, may also interact with violent programing. Some recent research suggests that commercial interruptions may heighten viewer arousal through

frustration and increase an immediate propensity toward violence. However, other research argues to the contrary, suggesting a pacifying effect These phenomena are worthy of further study, especially given that violent and "adult theme" programs are watched by many children outside of code-covered viewing periods Finally, evidence on the portrayal of unsafe acts (e g , in commercials promoting safety) demonstrates that imitation depends not on whether the acts are sanctioned or admonished in the commercial, but on whether children expect to be personally rewarded or punished for the behavior This suggests that unsafe act portrayals may be hazardous, even in context, and should probably be avoided whenever possible

6. Proprietary Drug Advertising

Analysis. Although commercials for over-the-counter (OTC) drugs are aimed at adults, children are exposed to such advertising when viewing other than children's programing It has been alleged that cumulative exposure to nonprescription, OTC drug advertising may promote a distorted sense of health and illness, a tendency to rely too heavily on proprietary medicines, and may contribute to the use of illicit drugs. Defenders of OTC drug advertising argue that drug advertising is never directed to child audiences, and that drug advertising is intended to encourage the proper use of medicines.

Evidence. Most research on the effects of OTC drug advertising has focused on teenagers rather than children under age 12. No positive relationship has been found among teenagers between televised drug advertising exposure and illicit drug use, but moderate positive relationships have been reported among teenagers between exposure to proprietary drug advertising and reported usage of proprietary medicines. Results of the limited research with children suggest that exposure to OTC drug advertising does, to a certain extent, affect children's attitudes toward illness and medication, with heavy TV viewers perceiving a greater frequency of illness, believing more in the efficacy of medicines and being more receptive to their use. Further research which should have significant implications for OTC drug advertising policy is currently in progress.

7. Food Advertising

Analysis. Food products (including beverages and snacks) represent the most prevalent category of children's television advertising Critics allege that the food products advertised represented a limited range of foods and that, due to the effectiveness of food commercials, children's eating habits and nutritional values are being adversely biased toward the products advertised. It is further alleged that promotional characteristics such as sweetness, enjoyment, and premiums encourage children to use nutritionally irrelevant criteria in making food choices The FTC is currently considering a rule requiring expanded disclosure of nutritional information in commercials for food products

Evidence Empirical evidence attests to the general effectiveness of food advertising to children. While various statistics have been cited by parties concerned with the nutritional health of the U.S. populace, including children, no evidence directly links televised food commercials to these statistics since the appropriate studies have not yet been conducted to examine the alleged linkage. The same is true of the allegation that food advertising messages encourage children's use of nutritionally irrelevant criteria in making food choices. There is evidence that children are capable of learning nutritional information when included in commercials, and preliminary research has been undertaken to develop graphic devices to communicate nutritional content of foods, further research is needed to ensure that this information is adequately comprehensible to children. At a broader level is the value judgment of whether food advertisers should be held accountable for dissemination of nutritional information beyond that intrinsic to their own products.

8. Volume and Repetition

Analysis. Critics of children's advertising are concerned about the cumulative effects of commercials on children. These concerns reduce to four main issues long-term effects (with age); heavy viewing effects (within age groups), clustered versus distributed placement of commercials within programs; and the effects of repetition of single commercials.

Evidence. The clearest findings in research on children and advertising are that children's understanding of commercials increases with age (and thus with cumulative exposure) and that children's liking of commercials decreases with age. Despite this increased understanding of commercials and increasingly negative attitude toward advertising, behavioral evidence suggests, especially when age

relevance of products is taken into account, that there is only a slight decline in children's stated desire for advertised products and in actual requests for these items over the childhood period. Heavy television viewing (within age groups) seems neither to retard nor accelerate children's understanding of commercials, although it does seem to produce more favorable attitudes toward advertising and advertised products. Clustered formats for commercials shown during children's programs have yet to receive adequate experimental testing, but may help younger children to distinguish commercials from programs by sharpening separation. Clear benefits in program-commercial separation should be documented before clustering can be justified. Finally, there is little evidence that repetition of individual commercials leads to greater persuasion beyond children's ability to remember brand names advertised. Neither the rate at which children see a particular commercial (i.e., frequency per program or per week) nor the total number of times they encounter it (beyond the first one or two exposures) seems to have any incremental effect on either their liking of the brand or their intention to request or buy it. The effect of repetition mainly seems to be to prevent children from forgetting their originally learned reactions to the product. Although individual commercials may be persuasive, research to date does not indicate that aggregated exposure to commercials in volume makes children any more or less persuasible, nor that repetition of individual commercials produces other than a reminder effect.

9. Advertising and Consumer Socialization

Analysis. Defenders of children's advertising have argued that it contributes to children's general understanding of the economic environment and, more concretely, that it contributes to the development of children's product knowledge and consumer skills. Against this view is the allegation that advertising fosters undesirable social values in children, with materialism most often cited as an example.

Evidence. There is no doubt that television commercials play a role in initiating children's consumer behavior at all age levels. Commercials also serve as an important information source for products that are advertised on television, ranking lower than in-store observation but higher than interpersonal sources. Whether commercials are informative in the broader sense of consumer socialization is unresolved at this point. Long-term exposure to commercials (with age) has been shown to be accompanied by increases in the number of brands known in advertised product categories and by an apparent decrease in perceived differences between brands. However, since neither of these effects was associated significantly with television viewing levels within age groups, it is impossible to conclude that advertising alone was responsible for them. Unfortunately, attempts to measure consumer skills of other than brand awareness and differentiation have involved little attention to valid and reliable measurement and have revealed mixed relationships—usually neutral but as often negative as positive—between television advertising exposure and acquisition of these skills. Attempts to measure children's values and attitudes toward consumer behavior, e.g., materialism, have suffered similar measurement problems. In summary, the role of advertising in consumer socialization has not been adequately documented. Better measures are required as well as sophisticated research designs capable of isolating the contribution of television commercials among other socialization forces.

10. Television Advertising and Parent-Child Relations

Analysis. Parent-child interactions can be viewed either as a *mediator* of television advertising to children or as an *outcome* of advertising. The mediation issue is to what extent parents influence the effects of advertising on their children. The outcome issue is whether advertising places strains on the parent-child relationship through parental denial of advertising-induced purchase requests. In both cases, questions are raised about patterns of parental yielding and denial, and the extent of conflict created by request denials.

Evidence. Parents' expressed attitudes towards children's television advertising are moderately negative, but most parents do not favor abolishment of children's advertising if it would mean discontinuation of children's programing. There is evidence that parents tend to overstate the degree of control they exercise over children's TV viewing and, simultaneously, to overestimate their children's understanding of commercials. These findings suggest that relatively little mediation of children's exposure and reactions to commercials occurs in most households. Mediation is much more likely to occur indirectly, when children request products they have seen advertised. Disappointment, conflict, and anger

are reported when parents deny children's purchase requests. Further research is needed to examine the persistence of these effects, and also to gage the extent to which parents utilize these occurrences for consumer instruction purposes.

RECOMMENDATIONS FOR FUTURE RESEARCH

Empirical research will not resolve every issue pertaining to televised advertising to children. Nevertheless, research documenting children's perceptions of and responses to advertising can contribute significantly to the formulation of informed policy. If this is to occur, several steps will be required: Policymakers must formulate their concerns as specifically as possible, so that they may be subjected to empirical testing, and then must give attention to research results, when available, in making their decisions. Researchers must be willing to undertake studies which address policy concerns more directly.

In terms of future research efforts, we are recommending that future studies move in three directions more closely linked to ongoing policy concerns. We conceive of these as three "levels" of generality: (1) "mid-level" research to test specific hypotheses or premises on which existing or proposed regulations are based; (2) "macro-level" research on the role of television—and television advertising—in children's lives; and (3) "micro-level" research to document how children perceive actual, individual commercials. We set no priorities among these three levels; all are important and necessary. Each is described briefly below.

1. Research to address specific questions relevant to policy issues

Several current policy questions could be usefully addressed using existing research methods. Each of the literature review chapters contains specific suggestions for further research relevant to the issues discussed. Such studies need not be elaborate, time consuming, nor expensive to conduct. If properly designed, they could have real impact on resolving certain policy issues. The following simply illustrate the kinds of studies which seem most likely to yield practical guidance:

- What constitutes an "appropriate device" to separate programs and commercials? The NAB Television Code currently requires that commercials directed to children "shall be clearly separated from program material by an appropriate device." In the absence of a more specific definition, each network has created a different separation device. These could be tested to determine if, in fact, they do accomplish their intended purpose. Comparisons could also be made among the various devices currently in use. These data would be of immediate relevance in refining, if necessary, the definition of an "appropriate device."

- What is now the most effective form for disclaimers? Self-regulatory codes now call for the use of certain disclaimers (e.g., "batteries not included," "some assembly required") in children's advertising. Existing evidence suggests that some forms of disclaimers are significantly more effective than others in communicating their messages to children. Again, empirical testing could suggest code refinements to ensure that disclaimers fulfill their intended purpose.

- How can commercial food messages best communicate nutritional information to children? Although not specifically aimed at children's advertising, the proposed FTC rule requiring disclosure of nutritional information would affect food commercials to children. However, requirements suitable for adults may not be appropriate for children. Experiments employing a variety of audio and visual techniques could help determine how to communicate required nutritional information in ways most likely to be understood by children.

Too often in previous research at this level (e.g., on premiums), single commercials have been employed to represent an entire issue, thus limiting the generalizability of the findings. The usefulness of future policy issue studies would be considerably enhanced if greater attention is given to selecting not only representative samples of children, but representative samples of commercials.

2. Research on the role of television and television advertising in children's lives

This "macro" level of research is intended to determine, for the first time, the importance of television—and television advertising—as influences on children, in comparison with other major influences including parents, siblings, peers,

school, church, the community, and other media It is intended to help settle the prolonged controversy between those who believe television is simply an innocuous source of leisure time entertainment and those who believe the medium has become a primary shaping force in children's lives.

We are not proposing a long-term longitudinal study, although this may be desirable We envision a program of research with a relatively large and heterogeneous population of children, employing a variety of techniques and measures to determine the relative importance of (and interactions between) the sources from which children acquire information, which influence their values and attitudes, and shape their behavior.

Rather than a single project at a single institution, this research could be carried out in parallel at several locations one site might focus on preschool age children, a second on a mid- to late-elementary school population, a third on preadolescents. Standardization of methods and instruments among the multiple sites would be of obvious importance, but experimentation with alternative techniques should be encouraged. When completed, the results should tell us, in considerable detail, the role that television and television advertising play for preschoolers, for elementary school children, and for preadolescents, and how television and television advertising compare with other major forces in children's lives

3. Research on children's perceptions of specific commercials

We are proposing here "micro" research which would systematically examine children's perceptions and misperceptions of individual television commercials. While it would concentrate on commercials intended for children, it should also include adult-oriented commercials actually seen by substantial numbers of children

The purposes of this research would be twofold First, it would develop methods to identify specific commercials which are confusing or misleading to children Second, it would build up a pool of data about children's perceptions of advertising, based on their responses to a range of specific commercials Ultimately, the research should lead to creation of standardized measures for testing commercials to ensure that they are "truthful, accurate, and fair to children's perceptions " Such measures could be of considerable usefulness to regulatory agencies and, of course, advertisers

APPENDICES

The following are contained in appendices to the main report

A. EVALUATION OF INDIVIDUAL STUDIES

A group of 21 primary empirical studies of television advertising and children are reviewed in terms of their objectives, child samples, methods, statistical tests, and results These evaluations are intended as a technical supplement to the literature reviews in the main body of the report

B. RESEARCH RESOURCE ROSTER (SUMMARY)

In addition to reviewing existing research, the project included a survey to identify individuals interested in and competent to conduct research on television advertising and children An invitation to respond to a questionnaire was widely circulated, some 345 responses were received. This appendix contains a statistical summary of these responses. The full roster of individual respondents, along with their affiliations, past experience, and current interests, has been issued separately

C. INDUSTRY CODES

This appendix reproduces the sections of the National Association of Broadcasters Television Code applicable to children and television advertising, and the Children's Advertising Guidelines of the Children's Review Unit of the National Advertising Division, Council of Better Business Bureaus

BIBLIOGRAPHY

A comprehensive listing of references pertaining to television advertising and children. In addition to empirical studies, the bibliography includes important policy statements, theoretical discussions, reports of key hearings, and relevant secondary references

Part I

INTRODUCTION AND BACKGROUND

Chapter I

INTRODUCTION

This report recommends a plan of future research on the effects of television advertising upon children. It is *not* an effort to reach a definitive verdict about those effects, since academic research on this issue is still relatively limited and there is not enough information currently available to permit such a judgment. However, this report provides a comprehensive review of existing research, summarizing the present state of knowledge about television advertising and children

Concern about television's impact on children is largely based on the fact that most American children spend a great deal of time watching television. The statistics that document the medium's pervasiveness are striking. The average child under 12 spends approximately 25 hours per week watching television (Nielsen, 1976), and the vast majority of all children watch some television every day (Lyle and Hoffman, 1972). The average high school graduate will have spent some 22 000 hours in front of the set and may have been exposed to as many as 350,000 commercial messages (Liebert, 1976).

Because of its massive presence in children's lives, television is believed to be a major vehicle for their acculturation to society's values Public concern has understandably focused on the possible negative impact of the medium The most prominent issue has been the continuing controversy over the effects of television violence, which led to the Surgeon General's study (1972) [1]

The 1970's have seen a marked increase in public and governmental interest in the effects of television on children in other areas as well For example, in 1971, in response to a petition from the consumer group, Action for Children's Television (ACT), the Federal Communications Commission undertook a broad inquiry into children's television In its report on that inquiry, issued 3 years later, the Commission observed that "there are high public interest considerations involved in the use of television . . in relation to a large and important segment of the audience, the Nations's children " The FCC statement explained the reasons for the Commission's concern about the nature of television programing and advertising directed at children: "Their ideas and concepts are largely not yet crystallized and are therefore open to suggestion . . . and they do not yet have the experience and judgment always to distinguish between the real and fanciful."

Perhaps the major result of these inquiries has been a general acceptance of the principle that children are a special television audience deserving special attention and protection How this principle should be applied in terms of specific issues is much less clear Increasingly, policymakers in both government and industry have been looking to academic research to provide empirical findings about children's responses to television programing and advertising as a means for making more informed decisions about policies and practices

For these reasons, our project began with an effort to identify the issues which have been raised in the recent past regarding the effects of television advertising on children We tried to state these issues as clearly as possible, and then to review all existing research relevant to them, so that needed future research could be proposed

BACKGROUND TO THE CONTROVERSY

The question of the effects of television advertising on children has a history which dates at least from the early 1960's, when broadcasters adopted guidelines for toy advertising to children Since then, the question has taken many forms, but it seems to be based upon four fundamental concerns

1 That children are exposed to advertising for products or categories of products (such as drugs and heavily sugared foods) which may be hazardous if misused,
2 That any advertising directed at children is *de facto* "bad" because it exploits their vulnerability,
3 That specific techniques used in television advertising may be deceptive or misleading to children, who lack the skills to evaluate them properly,

[1] The question of violence in relation to children's television advertising is considered in chapter 5 of this report

4 That long-term, cumulative exposure to television advertising may have adverse consequences on the development of children's values, attitudes, and behavior

The first concern, relating to the safety of advertised products, will not be treated *per se* in this report, since it is a direct effort *not* of advertising, but of the product itself. However, we will consider the role of advertising in relation to children's attitudes toward and consumption of foods and nonprescription drugs. The second concern, that advertising to children is *de facto* "bad," is primarily an ethical issue and, as such, is not amenable to empirical research. The third concern, about specific practices, has been the subject of most of the existing research and represents the largest portion of the literature reviewed in this report. The fourth concern, about long-term effects, is the broadest of issues amenable to research, since it relates to the very existence of a medium which advertises directly to children. Research may eventually be able to document the long-range developmental consequences of television advertising, but such research will require a scale, duration, and complexity greater than that of most research undertaken to date.

The major participants in the debate over televised advertising to children can be categorized into three groups—industry, government, and consumer-interest organizations—which are involved in policymaking on children's advertising. The actions and positions taken by these three groups define to a large degree the context in which specific issues are raised and resolved, as well as the contribution to be made by empirical research. These groups are:

The industry. The private, corporate side of broadcast advertising breaks down into three subgroups:

1. The *advertisers* who manufacture and market products and/or services intended, at least in part, for child consumers. These advertisers generally conduct a great deal of market research—both in-house or by research suppliers—in order to pretest their products and advertising strategies with potential consumers. Virtually all of this research is proprietary and, therefore, unavailable for inclusion in this project.
2. The *advertising agencies* which are responsible for developing creative strategies for promoting a client's products or services to young consumers or to their parents (the usual purchasers). The advertising agencies often conduct market research for their clients.
3. The *broadcasters* (networks, their affiliates, and independent stations) which sell air time to children's advertisers within programs that attract young viewers. Because, unlike other mass media, the airwaves are a limited public resource, access and control of broadcast channels are restricted by Federal agency licensing.

Over the years, these three groups have developed self-regulatory codes relating to advertising to children. Broadcasters have adopted standards for children's advertising through the "Television Code" of the National Association of Broadcasters (NAB).[2] The guidelines pertaining to children's advertising have periodically been updated and expanded, with a newly revised set of guidelines put into effect as recently as September 1976. The NAB code prohibits certain products (e.g., drugs) from being advertised directly to children, lists certain presentational techniques which may and may not be used in commercials, and sets time limits for advertising during children's programing. Alleged code violations are reviewed by the NAB's Television Code Authority, which may order that an ad be modified or discontinued by its members. The Code Authority also acts as a mandatory preclearance unit for all toy commercials and those offering a toy premium. In addition, each network reviews commercials (and programs) submitted for airing, evaluating them on the basis of the NAB guidelines and of legal policies and regulations.

Advertisers and advertising agencies have also established a system of self-regulation through the Council of Better Business Bureaus, Inc. (CBBB). The CBBB's National Advertising Division (NAD) has responsibility for monitoring ads and acting on complaints received from the public. In the spring of 1974, a Children's Advertising Review Unit was set up within the NAD, with a specific mandate to review problems concerned with advertising to children. In June 1975, the Children's Advertising Review Unit issued a set of "Children's Advertising Guidelines" whose stated purpose is "to ensure that advertising directed to children is truthful, accurate, and fair to children's perceptions." The provisions

[2]Not all television stations are members of NAB. As of December 1975, 415 of the 711 commercial stations on the air were NAB code subscribers. These 415 did, however, include most of the larger stations.

of the NAD guidelines are similar, though not identical to the NAB code (See Appendix C for relevant sections of both codes)

The Federal Government. Congressional legislation has delegated most of the responsibility for regulation of broadcast advertising to two agencies

1. *The Federal Communications Commission,* in the Communications Act of 1934, was given the authority to regulate broadcasting "consistent with the public interest, convenience, and necessity." The FCC thereby acquired broad discretionary powers, circumscribed by relatively few specifically articulated guidelines and the responsiblity for developing specific standards for broadcast regulation and policymaking. It has authority not only to oversee technical aspects of licensing, but also to monitor industry behavior and to perform quasi-judicial and quasi-legislative functions (i e., hold hearings and make rules). Its power derives from its authority to grant, renew, or deny licenses to television stations and to levy fines for certain violations

2. *The Federal Trade Commission* is the agency with principal responsibility for the regulation of interstate commerce Since 1938, the FTC has been empowered to protect the consumer interest, as well as private competition, by means of prohibiting "false advertisements" and preventing "unfair or deceptive acts or practices " The Commission has the power to act on commercials on a case-by-case basis, as well as to issue broad Trade Rules and Regulations which can restrict or require certain advertising practices

The roles of these two Federal agencies may be differentiated by noting that the FCC has jurisdiction over the *amount* and *scheduling* of advertising, while the FTC is responsible for the *content* of commercial messages Both commissions have demonstrated a reluctance to impose specific regulations on advertisers and broadcasters, preferring to allow industry to regulate itself However, the commissions have used the threat of government action to prod industry reforms, and they sometimes hold hearings in order to focus attention and stimulate debate on specific issues Congress (especially through the Communications Subcommittees of the House and Senate) has intermittently performed the same function [3]

The consumer-interest organizations. The public has remained relatively uninformed and unorganized in expressing its concern regarding the uses and abuses of television advertising for children. Some organizations, such as the Consumers Union, provide the public with objective evaluations of advertised products, and several advocacy groups have concentrated specifically on the issues of children's television advertising—most notably, Action for Children's Television (ACT), in Boston, and the Council on Children, Media and Merchandising (CCMM), in Washington. These groups pursue reform through a variety of methods, including testimony at government hearings, publications, conferences, and research sponsorship. They have also attempted to force governmental action by filing petitions with the regulatory commissions and the courts.

Relations between industry, government, and the consumer-interest groups have often been contentious. ACT and CCMM charge that industry efforts toward self-regulation are more concerned with public relations than with the actual prevention of harm. Industry spokesmen, in turn, assert that consumer groups are self-appointed advocates who do not accurately reflect the concerns of most parents. Industry also tends to regard much government intervention as unwarranted, while consumer advocates perceive the government as timid and overly concerned with industry well-being.[4]

THE ROLE OF RESEARCH

As indicated earlier, the amount of publicly available research on the effects of televised advertising on children is still limited. The largest body of existing research is undoubtedly that conducted by advertisers in testing the effectiveness of individual commercials and advertising campaigns. This research typically consists of studies employing

[3] For a useful, if partisan, review of government action (and inaction) in this area, see the statement by Rober Choate in *Broadcast Advertising and Children,* Subcommittee on Communications, U S House of Representatives (Government Printing Office, 1976), No 94-53

[4] For a comparative study of attitudes of representatives from each of these groups (and a sample of "public" opinion) see Charles Atkin and J Culley (1975)

small samples of children to determine the comprehensibility and persuasiveness of commercials These studies are almost always kept confidential because (according to a recent article) of "an unwillingness to share private data with competitors and a general view that such research is of little interest to the research community" (Griffin, 1976). Griffin also suggests that "often the scope of the research is so small and specialized that no great enlightenment would result from publication " However, studies of children's perceptions and of responses to specific commercials can yield important data, and one of our principal recommendations is for a program of research along these lines.

Academic research on children's television advertising is much less extensive. Although the bibliography in this report cites several hundred references that have some bearing on our topic, only a small fraction of these are studies that deal specifically with children and with television advertising Many of the citations pertain to more general issues and a number of the entries refer to speeches and testimony rather than empirical research In addition, many of the empirical studies are small-scale, and there has been little replication of findings

When the research proposed here has been carried out, a more definitive verdict about the effects of television advertising can be reached. However, even then, no final answers will be possible, for the following reasons: First, although the short-term effects of individual television advertisements or of small numbers of advertisements can be readily studied, such research does not encompass what is most at issue—the question of whether there are any *long-term, aggregate* effects upon children of either particular types of commercials or the whole volume of television advertising Understanding the effects of advertising *as an institution* is simply beyond current research procedures. Although we have recommended that research be designed to study advertising at this level, we expect that current ignorance about the en masse effects of televised advertising will continue for some years to come.

In regard to any *long-term* effects of children's exposure to *particular categories* of television advertising or to specific features of commercials, the necessary research methods may be more within reach. Several longitudinal studies have been designed to measure the various aspects of child development However, longitudinal research has not yet been sufficiently sophisticated to separate the effects of television advertising from other influences upon the child, including family, peers, and school. Nor is there adequate research to identify the *interactions* between these other influences and television advertising. Yet, it is precisely these long-term effects of television advertising, in the full context of the child's life, that are of the greatest concern.

Finally, since we are concerned here with research intended to be "policy relevant," we should also consider the limitations of research from the perspectives of the advertiser and the regulator.

When an advertiser looks to research to assess the effectiveness of his advertising, well-established research procedures can be followed. But the public concern about advertising is not, of course, to establish that advertising can benefit sales, but rather that advertising can mislead, confuse, or perhaps produce harmful effects Thus, when advertisers look to research to demonstrate the absence of these effects, our procedures can never be fully convincing: Research can never prove the *absence* of an effect.

From the regulator's point of view, it is important to recognize that policy decisions are seldom based solely on research evidence, no matter how well planned and conducted that research may be Research findings are typically only one element among the several factors that determine advertising policies and practices with regard to children Ethical, legal, economic, and political forces will inevitably continue to operate and to influence policy

Despite these caveats, we believe that the research we have proposed can help establish an empirical basis for more rational and more effective policymaking. Indeed, the results of research have already had some impact on policymaking—generally, in the formulation of the NAD's 1975 guidelines for advertising to children, and more specifically, in the FTC's recent consideration of the use of premium offers in children's advertising.

One reason for guarded optimism about the future is that nearly all the parties interested in television advertising and children agree about the need for further research. In a speech announcing his interest in these issues, Lewis A. Engman, then chairman of the FTC, acknowledged that "there is really no definitive pool of information on the

specific impact of television advertising on children. This remains a field which should be subject to more extensive research." More recently, Emilie Griffin (1976), director of the Children's Advertising Review Unit of the NAD stated that "research is needed because it will serve to make guidelines codes, and government actions fair to children and advertisers alike."

DEFINING THE ISSUES

We began this report by attempting to identify a set of issues that would serve as a framework for the review of existing research. Several problems made this selection process difficult. One fundamental difficulty is that the various issues raised in the debate are often rooted in personal values. Some critics feel that *any* advertising directed at children is unfair and unacceptable, while some defenders of the system feel that *any* regulation of advertising practices is an abridgement of rights in our basically free-enterprise economy. Given such extreme points of view, objective discussion of any specific issues is difficult indeed. Beyond a very few basic points of agreement—for example, all would agree that children should not be harmed or exploited—critics and defenders of advertising share very little common ground in the controversy. One man's "exploitation of children" is another's "consumer socialization."

Another problem is that the issues which have been advanced by various individuals or groups involved in the debate have frequently been stated incompletely or too broadly, alleging an effect without a specific cause, or a cause without a specific effect. For example, the charges that advertising leads to "materialistic values," or that "animation in children's advertising is misleading," would be difficult to test empirically or to remedy with a realistic policy for corrective action. The charge that animation is misleading neither specifies what aspects of animation are misleading, nor how the children are misled. Similarly, it would be difficult to recommend action on the charge of materialistic values without a realistic and objective understanding of this concept, a knowledge that advertising in fact fosters the development of such attitudes, and a widespread agreement that such attitudes are detrimental to children and/or to society. One cannot realistically propose a corrective device without understanding causal factors, and one cannot evaluate a charge that a practice is "bad" without specific indications of the alleged consequences of the practice.

These problems indicate the need for a more precise specification of issues, as well as for a more adequate theoretical and empirical base for the investigation of these issues. Thus, we followed three distinct steps in our effort to define the issues more precisely and objectively: (1) we conducted an initial literature review; (2) we then surveyed interested parties in the controversy for their views of the issues, and only then did we (3) develop a framework of issues that seemed to us most meaningful and investigable.

The initial literature review was undertaken in order to help develop a list of issues of concern to all interested parties, and to identify a group of "key" studies—i.e., those studies which seemed most likely to yield an understanding of some aspects of television advertising's effects on children. Four documents were particularly useful in helping to identify the issues, since they were statements of the major areas of concern from the perspectives of industry (the NAB Television Code and the NAD guidelines), of government (a speech by past FTC chairman, Lewis Engman), and of consumer-interest groups (a series of children's advertising guidelines proposed by a group of consumer advisers to the FTC).

In our second step, we surveyed advertisers and advertising agencies, politicans, regulators, industry associations, consumer groups, and academics. All were asked to evaluate our preliminary list of issues. Forty-five responses were received out of the approximately 125 questionnaires mailed. Few entirely new issues were suggested in these responses; rather, most respondents urged us to modify the wording of the issues we posed, or to broaden or narrow them. Some advertisers, for example, urged us to consider more of the "positive" results of advertising on young people; some urged us to review the constitutionality of regulations of advertising practices affecting children. On the other hand, some consumerists urged us to focus on the nutritional characteristics of advertised food products prior to the question of the effects of advertising itself. Many of the responses from academics suggested topics for research which also raised policy issues.

Following these preliminary activites, we were prepared to synthesize the results and specify the

framework of issues which would become the focus for the project. We agreed on five points which were useful in this synthesis

1 We would distinguish between issues arising from advertising in general and issues related to the specific products advertised. We decided *not* to make judgments about the quality of advertised products, since these questions were beyond the scope of the project and outside the specific expertise of the project staff.

2. The issues to be considered would encompass all advertising to which substantial numbers of children are exposed, not just commercials specifically intended for children and broadcast within the context of children's programming.

3. While many of the issues pertain to alleged negative effects, we would attempt, where possible, to identify issues pertaining to positive or beneficial effects of television advertising.

4. Although many of the alleged negative practices in advertising occur relatively infrequently (e.g., portrayal of unsafe activities, urging parents to buy), we decided that since they *do* occur or *have* occurred, they should be included in the analysis.

5. Because we believed that the issues should be practical, we decided that the final set of issues would be most productively stated mainly in terms of advertising characteristics or practices which on the basis of research results could be corrected or modified. Thus, our main criterion in selecting these issues was *utility*: Is some action suggested by the empirical knowledge relating to the issue? Does empirical information suggest some change or some continuation in a practice? For example, one cannot readily alter the television viewing patterns of children from different socioeconomic family backgrounds, although such differences may exist and may affect their responses to advertising. One can, however, modify, eliminate, or leave unchanged certain advertising practices, such as the use of "host-selling," on the basis of empirical evidence of this practice's effects on children

Given these considerations, we derived the following list of ten issues The first seven deal with particular practices or characteristics of television advertising; the final three issues are concerned with the cumulative exposure of children to television advertising and with some potential mediating factors on the effects of this exposure

1. Children's ability to distinguish television commercials from program materials.
2. The influence of format and audio-visual techniques on children's perceptions of commercial messages
3. Source effects and self-concept appeals in children's television advertising.
4. The effects of premium offers in children's television advertising.
5. Violence and unsafe acts in television commercials directed to children.
6. The impact on children of proprietary medicine advertising
7. The effects on children of television food advertising.
8. The effects of volume and repetition of television commercials.
9. The impact of television advertising on consumer socialization
10. Television advertising and parent-child relations.

THE ORGANIZATION OF THIS REPORT

Reviews of existing research relevant to each of these issues follow in chapters 1 through 10. In each of these chapters, we briefly introduce the *issue* and then review the current and proposed *regulations* regarding that issue. The intent here is to determine to what extent existing regulations and industry codes address the issue. A third section in most of the chapters assesses the *incidence* of the advertising practices or characteristics in question. Here we rely on data from available content analyses. The body of each chapter reviews and evaluates the empirical *research evidence* relating to the practice or characteristic. Finally, each chapter summarizes the evidence and offers *recommendations for future research* pertinent to that issue. A preliminary section to these 10 chapters—Background. Children's Television Viewing Patterns—presents the available data on how much television children watch, when they watch, and what they watch.

Chapter 11 reviews the evidence of the previous chapters in terms of what it tells us about the links

between television advertising, its possible effects on children, and the mediating variables of long-term exposure, consumer socialization, and parent-child relations. The final chapter presents a more general view of our suggestions for future research. Here, we have not attempted to spell out research projects in detail, but rather to indicate the major directions we believe should be pursued in order to resolve the most important unanswered questions about the effects of television advertising on children. Some of our suggestions closely follow existing lines of research; others propose entirely new directions. Because the need for additional research is great, we hope readers will give careful attention to this chapter.

In addition to a bibliography, the back matter of this report includes three appendices.

Appendix A consists of detailed, comparative evaluations of 21 key studies specifically concerned with the effects of television advertising on children. These studies are reviewed in terms of their objectives, child samples, methods, statistical tests, and results. This appendix is intended as a technical supplement to the literature reviews in the main body of the report.

Appendix B provides a statistical summary of the results of a survey we conducted of researchers and research facilities which could be called upon to conduct future research projects. Through a widely circulated questionnaire, we sought to identify researchers in academic and other institutions with (1) a professed interest in assessing advertising's impact on children, (2) a demonstrated research competence, and (3) an expressed interest in conducting policy-relevant research. Some 345 responses were received. A full listing of individual respondents—along with their affiliations, past experience and current interests—has been issued separately.

Appendix C contains the NAD's "Children's Television Guidelines" and the NAB's "Children's Advertising Guidelines."

The bibliography includes the research studies cited in the text, as well as a listing of important policy statements, theoretical articles and books, reports of key hearings, and relevant secondary references.

Chapter ii

BACKGROUND: CHILDREN'S TELEVISION VIEWING PATTERNS

Knowledge of children's television viewing patterns is relevant in several ways to a consideration of the effects of television advertising on children. For example, data on children's total viewing time can be used to estimate their total exposure to television advertising. Information on the times that children watch television and the programs they favor is useful in determining the kinds of commercials children are likely to see. In this background chapter, we will review the available evidence on the following specific questions:

- At what age do children begin watching television?
- How much television do children watch?
- How much television advertising are children exposed to?
- When do children watch television?
- What kinds of programs do they prefer?
- What is the relationship between children's viewing patterns and the industry codes governing advertising to children?

Three important points should be noted at the outset. First, "children" in the context of this report are conventionally defined as youngsters between the ages of 2 and 12. Within such a wide age range, there are great differences, of course. The viewing habits and preferences of a 3- or 4-year old are different from those of a 6-year old, and vastly different from those of a 10- or 11-year old. Unfortunately, these differences are frequently ignored in discussions of "children's television." Whenever possible, we will take account of these age differences in the following discussion.

Second, there is no single, wholly satisfactory source of data on children's television viewing patterns. There are many different ways to collect such data, and each is likely to produce different results. For example, Schramm, Lyle, and Parker (1961) compared four separate measures of the amount of weekend television viewing by a group of 24 children: (1) a child's general estimate; (2) an unsupervised diary kept by each child; (3) a surreptitious measurement by older siblings; and (4) an interview in which the investigators aided the child's recall of programs watched. These four methods yielded estimates which varied by as much as 20 percent. An additional problem with most scientific studies of children's television viewing is that they are usually based on small samples taken over limited periods of time and are therefore difficult to generalize.

Third, most of the studies of children's viewing patterns lack a precise definition of "television viewing." The term can be used to encompass a broad variety of behaviors, ranging from rapt involvement to mere presence in a room in which a television set is operating. The latter extreme probably should be (but is not always) excluded from the definition of television viewing; but even within the "normal" range of viewing, research studies have established that quite different levels of involvement can be included. For example, both surveys and observations have demonstrated that children's viewing is often accompanied by other activities, such as talking, eating, and playing (Lyle and Hoffman, 1972a; Murray, 1972); and laboratory studies have shown considerable variations in children's visual attention to the screen, even when watching television is their only activity (Ward, 1972; Wartella and Ettema, 1974).

In light of these limitations, the statistics cited in this chapter must be regarded as *gross* measures of children's viewing time and not as precise records of moment-to-moment attention by the children studied. Much of the data in this chapter comes from the A. C. Nielsen Company, which compiles the best known and most detailed statistics on national television audiences.[1] There are both important advantages and disadvantages to these Nielsen data. Some of the advantages are: (1) The data are based on a relatively large and representative national sample (approximately 3,600 families), (2) The

[1]Both A. C. Nielsen and a second company, Arbitron, also provide market-by-market data on the viewing audiences for local stations. These statistics are important for determining the audiences for nonnetwork syndicated programing and for examining possible regional variations in viewing patterns. However, in this chapter, we are concerned with children's viewing patterns on the national level.

Nielsen Company has been measuring television audiences since 1950 and therefore provides a valuable historical picture of viewing patterns. (3) The Nielsen Company analyzes the television audience on the basis of age and therefore provides viewing data specifically on children, as well as on teenagers and adults

The disadvantage of the Nielsen data is that the company's purposes are not scientific, therefore (1) Most of the data are proprietary and not publicly available, (2) The collection and presentation of the data are primarily shaped by the needs of Nielsen's principal clients—broadcasters and advertisers—not by the priorities of scientific research. (3) The company subdivides its child audience into two categories only—children 2-5 years of age and children 6-11 Thus, differences in responses within these age brackets cannot be determined from the Nielsen data Because of these disadvantages, we have supplemented the Nielsen data, whenever possible, with figures from other sources

AT WHAT AGE DO CHILDREN BEGIN WATCHING TELEVISION?

Little attention has been given to when and how very young children begin watching television The only study of the beginnings of television use was conducted in 1961 by Schramm, Lyle, and Parker They found that 14 percent of the children studied made "regular use of the medium" by age 2 Over one-third did so by age 3, over two-thirds by age 4, and over 90 percent by age 6 (See table ii-1)

Table ii-1

Percentage of Children Using Television at Different Ages

Age	Percent using television
2	14
3	37
4	65
5	82
6	91
7	94
8	95
9	96

Although more recent data are not available, it seems likely that with the increased ownership of television sets since 1961,[2] and with the advent of programing intended specifically for preschoolers (e.g., *Sesame Street*), more children are becoming regular viewers at a very early age Even on the basis of these dated figures, we can conclude that a majority of children are watching television regularly before age 4

HOW MUCH TELEVISION DO CHILDREN WATCH?

Children's viewing patterns vary considerably from individual to individual, as well as from day to day for the same individual Nevertheless, some general patterns can be discerned According to Nielsen data from November 1975, children 2–5 years watched television an average of 26 hours and 31 minutes per week, or more than 3¾ hours per day Older children, ages 6-11, watched an average of 25 hours and 49 minutes each week, or more than 3½ hours per day By comparison, the average weekly viewing time for all persons was 26 hours and 59 minutes per week Teenagers and working women and men under 55 watched less time than children, nonworking women over 18 and men over 55 watched more than children

The data indicate that during the months when school is in session, children under 6 tend to be heavier viewers than children 6 years and older They also show that children's viewing hours vary somewhat from year to year (see table ii-2) Overall, Lyle and Hoffman (1972a) have estimated that children's average daily viewing time has increased approximately an hour per day over the past 20 years Of course, these averages do not reflect individual variations in viewing patterns within an age group For example, among the 6th graders interviewed by Lyle and Hoffman, 25 percent reported watching 5½ hours of television on a given day, while another 25 percent watched no television at all

[2] Television set ownership in U.S. households increased from 90 percent at the end of 1961 to 97 percent by the end of 1975 Even more dramatic has been the increase in homes containing two or more sets from 14 percent at the end of 1961 to 43 percent by the end of 1975 (Nielsen 1976)

Table II-2

Children's Average Daily Viewing Time (1966-75)

	2-5 year olds	6-11 year olds
November 1966	3:14	2:59
November – December 1968*	3 28	4:01
November 1970	3.40	3.11
November 1972	3:54	3:39
November 1974	3:45	3:26
November 1975	3:47	3:41

*1968 data came from a 6-week measurement period (Nov 1 Dec 12), 4-week periods were used in the other years

A number of studies have attempted to determine the factors that influence individual differences in the amount of television viewed by children. A relationship has been found, for instance, between higher viewing times and lower parental socioeconomic status (Schramm, Lyle, and Parker, 1961, McIntyre and Teevan, 1972, McLeod, Atkin, and Chaffee, 1972) Viewing differences have also been correlated with intelligence, ethnic background, and level of social adjustment However, most of these differences are not dramatic and have been found primarily among older children and adolescents Moreover, as television has become more universal, research has indicated substantial reductions of these differences (Roberts, 1976)

Allowing for individual differences, we can safely conclude that the average child over the past decade has watched 3 to 4 hours of television per day Schramm, Lyle, and Parker's description in 1961 of the pervasive role of the medium in children's lives is still appropriate today

> Throughout the preschool years, television time far exceeds other media time, in fact, it usually exceeds the total of all other media time . . Two-thirds of all children are already television viewers before they have much experience with movies Even at the end of 10 years, when they are making some use of all media, television is the only one they are using day after day At age 10, three-fourths of all children, as we discovered, will be likely to be watching television on any given day. This is more than twice the percentage for any other medium at that age

HOW MUCH TELEVISION ADVERTISING ARE CHILDREN EXPOSED TO?

Some of the issues we deal with in this report concern the long-term cumulative effects of television advertising on children. Thus, we have tried to derive a rough estimate of the average child's yearly exposure to television advertising Our computations, explained below, suggest that children on the average are exposed to some 20,000 commercial messages each year, or slightly more than 3 hours of television advertising each week [3] Of course, light viewers (or heavy public television viewers) would see fewer commercials, and heavy viewers might see considerably more

These figures were reached by multiplying 365 days per year times the average number of viewing hours and the approximate number of commercials per hour The figure for the number of viewing hours per day was based on an average of Nielsen estimates for 1974 and 1975 (see table II-2). Since Nielsen provides separate data for 2-5 year olds and 6-11 year olds, we computed estimates for each of these age groups, and we accounted for noncommercial public television viewing time by reducing these estimates by 10 percent (probably a high figure, except for preschool devotees of *Sesame Street*)

[3] These estimates are close to those made by others For example Robert Choate, in testimony before the House Subcommittee on Communications (1975) stated that 'the average child sees over 22,000 commercials each year' Lewis Engman, ex-chairman of the FTC, estimated that the average high school graduate will have seen 350,000 commercial messages (1973) That figure divided by 16 years gives an average of 21,875 commercials per year

Reaching a fairly accurate estimate of the number of commercial messages per hour was more problematic, since regulations governing the maximum amount of "nonprogram material" per hour differ for different times of the day and also change periodically. At present, the NAB code states that nonprogram material may occupy no more than 9½ minutes per hour during prime time and weekend children's programing time,[4] no more than 12 minutes per hour during weekday children's programing, and no more than 16 minutes per hour at all other times.[5]

There were two other problems in determining the number of commercials per hour. First, the length of individual commercials varies, ranging from 15 to 60 seconds. However, since Barcus (1975a) reports that 98 percent of commercials monitored in his studies were 30 seconds in length, we accepted his figure as an adequate estimate. Second, not all nonprogram material is advertising. This category also includes public service announcements, promotional commercials for other television programs, and program credits in excess of 30 seconds (Code News, June 1974). Due to these variables, we chose to use conservative estimates. We have used 9½ minutes per hour of nonprogram material as a base. At 30 seconds per commercial, this would result in 19 nonprogram messages per hour. We then assumed that 10 percent of these 19 messages, or two per hour, were not commercials, leaving an average of 17 commercials per hour.

Applying these figures to our formula, we arrived at the following:

Age:	Avg hrs/day of TV viewing ('74-75)	Minus 10% PTV viewing		Avg hrs/day comm'l TV viewing		Avg no. comm'ls/ hour		Days		Avg No. comm'ls viewed/yr
2-5	3.7	− 0.4	=	3.3	×	17	×	365	=	20,476
6-11	3.5	− 0.4	=	3.1	×	17	×	365	=	19,236

WHEN DO CHILDREN WATCH TELEVISION?

The kinds of commercials children see depend upon the hours when they watch television. Weekend mornings and especially Saturday mornings are generally thought of as "children's television hours" and do represent heavy viewing periods for children. However, according to 1975 Nielsen data (see figure II-1), the weekend daytime hours from 7:00 a.m. to 4:30 p.m. account for only 16 percent of the total weekly television viewing time for children 2 to 11 years old. For children under 6, the greatest amount of viewing, 30 percent, occurs on weekday mornings and afternoons (7:00 a.m.-4:30 p.m.). Late afternoon and early evening hours (4:30-7:30 p.m.) account for 27 percent of the total, and early evening and prime-time hours (7:30-11:00 p.m.) account for 24 percent. Children 6 to 11 years do most of their viewing (36 percent) during prime time, followed by the later afternoon and early evening hours (30 percent). Thus, for all children under 12, the hours from 4:30 p.m. to 11:00 p.m., Monday-Sunday, account for more than half their average weekly viewing.

A second way of examining this information is to look at the average number of children in the television audience over the course of a day. These data, based on the 1974 Nielsen measurements (the most recent year for which detailed hour-by-hour statistics were available) are presented in figure II-2. Figures II-2a and b represent estimates of the national child audience on Saturdays and Sundays, from 7:00 a.m. to 6:00 p.m. Figure II-2c represents the child audience on weekdays until 6:00 p.m., as well as the number of children viewing television Mondays through Sundays during the evening hours, from 6:00 p.m. to 11:30 p.m. Since evening viewing patterns differ only slightly from weekdays to

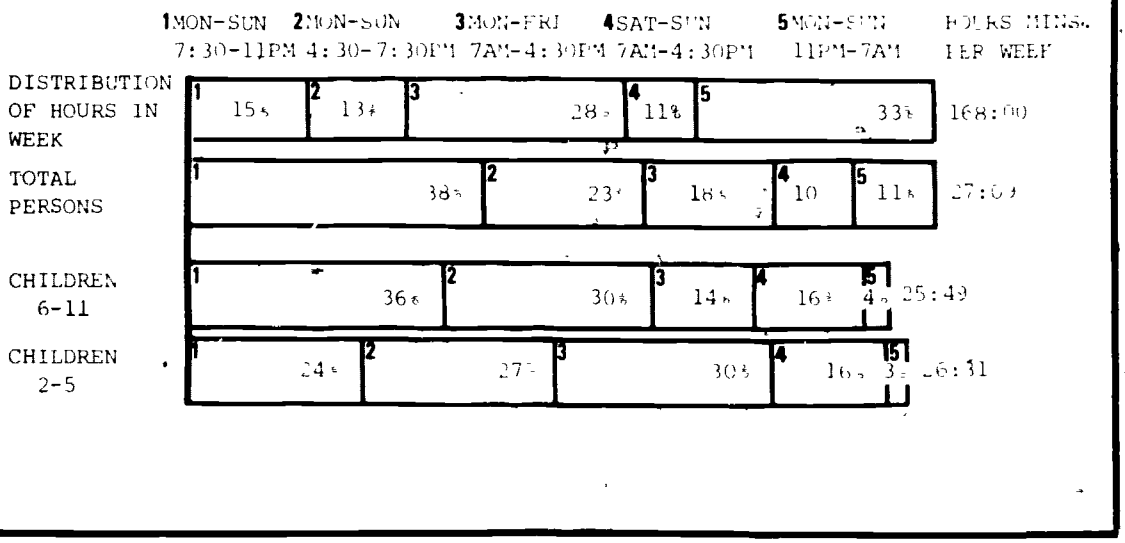
[4]Children's programing time is defined as "those hours other than prime time in which programs initially designed for children under 12 years of age are scheduled" (NAB *Code News*, June 1974).

[5]According to Barcus (1976), monitoring of weekend and weekday afternoon children's programing indicated that the actual time devoted to nonprogram material exceeded these limits on some stations.

[6]Barcus studies were confined to child directed commercials during children's programing. However, 30 seconds has also become the standard length for most adult oriented commercials.

FIGURE ii-1

WEEKLY VIEWING ACTIVITY FOR CHILDREN
November, 1975



SOURCE: Nielsen (1976)

weekends, they are combined here to present the audience over the course of the entire week (Note that these graphs represent *averages* at given times, not cumulative audiences)

In general, the number of children watching television increases rapidly during the course of the early morning hours (especially on Saturday), then decreases during the late morning and early afternoon. The number begins to increase again in mid-afternoon until about 5:30 p.m., when it falls off temporarily (due, probably, to children's low interest in news). The child audience then continues to rise to a peak at about 8:00 p.m. (see figure ii-2c) The size of the child audience falls off rapidly thereafter, although nearly 25 percent of all children are still watching television at 10:00 p.m Even at 11:00 p.m., approximately 10 percent of all 6-11 year olds are still counted in the television audience

Some age differences in viewing patterns are noted in Figure ii-3, which presents the viewing patterns for children 2-5 and 6-11 years.[7] While the graphs in the two figures are roughly similar in shape. the weekday morning audience of older children is much smaller because of school attendance. By contrast, the portion of older children in the audience during prime-time hours is significantly greater (peaking at slightly more than 50 percent of all 6-11 year olds at 8:00 p.m.). Similar breakdowns were not available for weekend daytime viewing, but smaller age-related differences would be expected. since school attendance or bedtime patterns are not factors at these times.

WHAT KINDS OF TELEVISION PROGRAMS DO CHILDREN FAVOR?

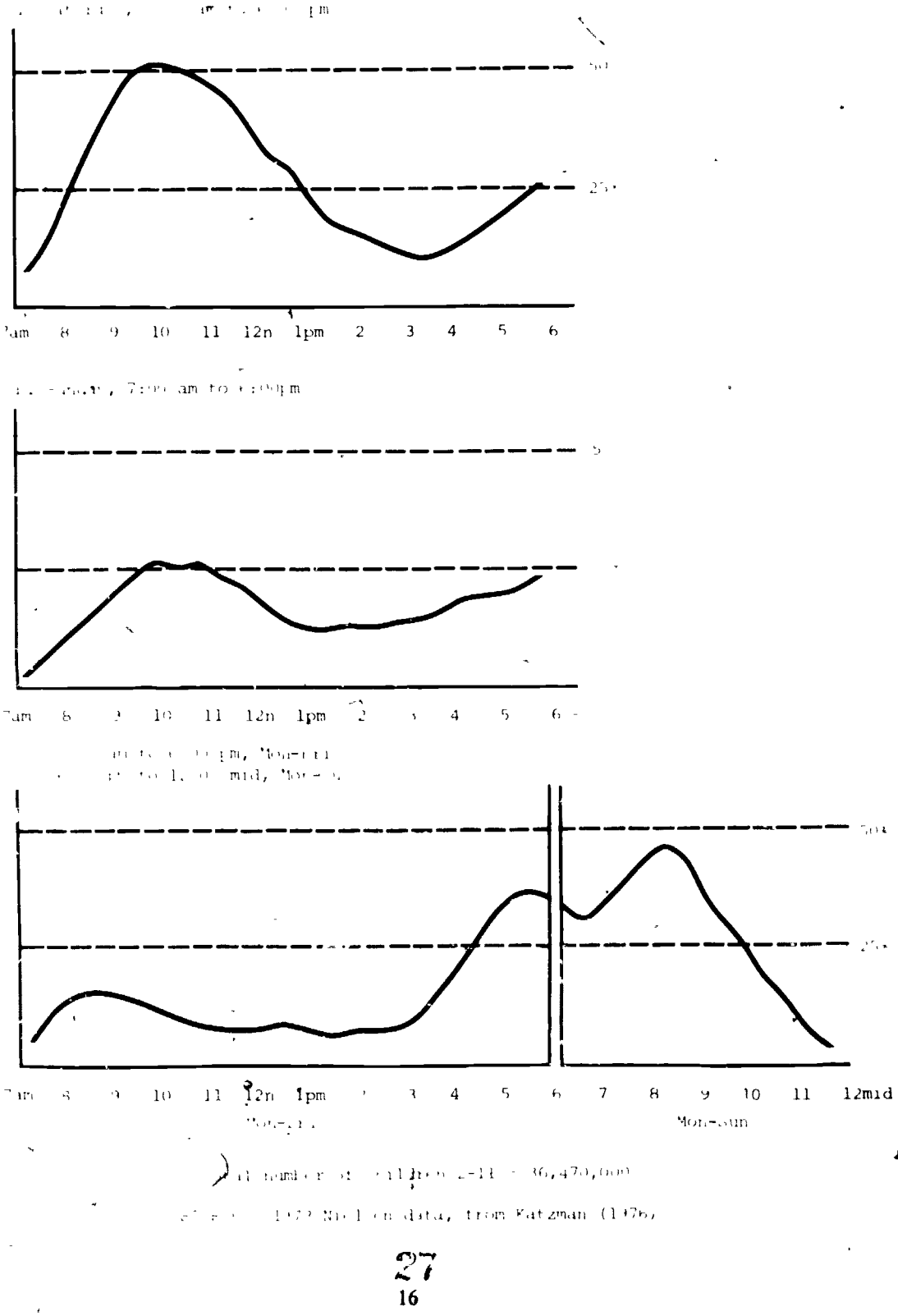
The kinds of commercials children see are determined not only by the hours when they watch television, but also by the specific programs they watch. As with other aspects of children's television viewing, their extremely diverse program preferences are related to age. Schramm, Lyle, and Parker (1961) reported that the favorite programs of preschoolers are predominantly those designed specifically for children: "the programs have animals, animated characters, or puppets as their chief characters—are all in story form, are full of action (often slapstick), and often have a heavy component of laughter." By the time children are midway through elementary school, their preferences have broadened to include

[7] These figures are in terms of both absolute numbers and of percentages of children in each age bracket Since there are approximately 9 million more 6-11 year olds than 2-5 year olds, the percentages provide more direct comparisons

FIGURE 11-2

CHILD VIEWING AUDIENCE

Average Number Children
Watching Television, By Hour



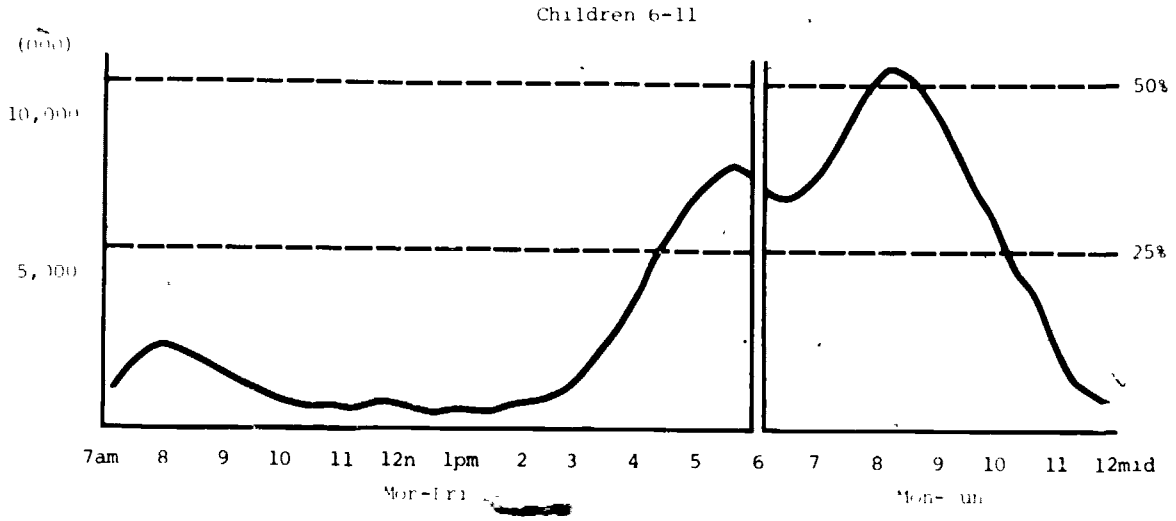
All numbers of children 2-11 = 36,470,000

Source: 1972 Nielsen data, from Katzman (1976)

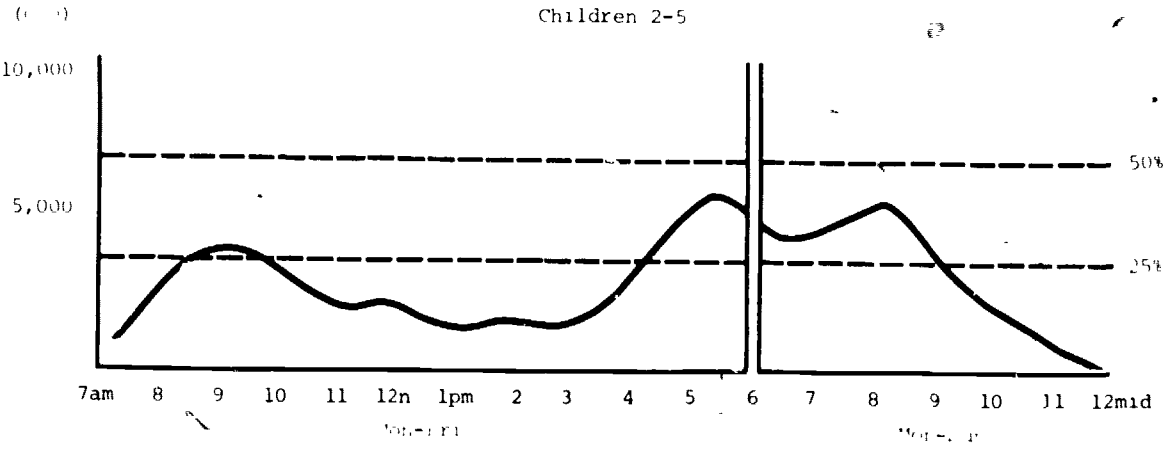
FIGURE 11-3

CHILD VIEWING AUDIENCE BY AGE

7:00 am to 6:00 pm, Mon-Fri
6:00 pm to 12:00 mid, Mon-Sun



Total number of children 6-11 = 27,780,000



Total number of children 2-5 = 13,690,000

SOURCE: 1973 Nielsen data, from Katzman (1976)

child-oriented adventure and variety programs, situation comedies, and westerns. By the time children leave elementary school, their preferences encompass most categories of programing watched by adults.

These findings were confirmed in a study by Lyle and Hoffman (1972b), who reported on the favorite television programs of preschool children (3-, 4-, and 5-year olds) (see table ii-3)

Table ii-3

Television Program Preferences of Preschool Children

Program or type of program	% of 3-, 4-, 5-year olds
Flintstones	26
Sesame Street (noncommercial)	16
General cartoons	12
Violent cartoons	11
Mickey-Mouse-type cartoons	5
Situation comedies	5
Family situation comedies	4

Even within this 3-year age span, some striking changes were revealed by the study. For example, 30 percent of 3 year olds reported *Sesame Street* as their favorite program, whereas only 12 percent of the 5-year olds expressed this preference. Conversely, situation comedies were not considered favorites by any 3-year olds, but 12 percent of the 5-year olds chose the situation comedies.

Evidence on the viewing preferences for older children comes from a study in which a national probability sample of 6-7 and 8-10 year olds were asked to name the programs they had watched most recently (Gene Reilly, 1973c). Table ii-4 shows the percentage of each group that named a particular show:

Table ii-4

Favorite Programs of School-Age Children

Type of program	% of 6-7 year olds	% of 8-10 year olds
Situation comedies	51*	58
Cartoons	45	40
Other children's shows	33	31
Adventure shows	17	33
Game shows	16	25
Children's educational shows	19	7
Science fiction shows	10	9
Westerns	10	10
Movies	5	15

*Percentages add up to more than 100 percent because of frequent multiple responses

We can see that by age 6 or 7, children are watching a broad variety of programs. This is confirmed by Nielsen estimates (1976) of the number of child viewers for various kinds of prime-time programing. Nielsen divided prime-time programing into five categories, with the estimated average child audience for each type of program. The figures for the period of October-December 1975: situation comedy, 5.22 million; general drama, 3.68 million; variety, 3.38 million; feature film, 2.83 million; and suspense and mystery drama, 2.46 million. Although these are large numbers, the most popular programs among these genres draw substantially greater numbers of children. For example, table ii-5 lists the child audience estimates by Nielsen for the 15 shows most watched by children in 1973:

Table II-5

Most Popular Programs Among Children (1973)

	Average number of child viewers (millions)	% of all children	% of audience that are children
1. *Brady Bunch*	12.08	33.1	40.2
2. *Partridge Family*	11.73	32.2	34.3
3. *Wonderful World of Disney*	11.02	30.2	27.5
4. *All in the Family*	8.89	24.4	14.7
5. *Emergency*	8.89	24.4	23.7
6. *New Scooby Doo Movie*	8.89	24.4	70.2
7. *The Waltons*	8.89	24.4	23.7
8. *Adam 12*	7.47	20.5	20.7
9. *Flintstones Comedy Hour*	7.11	19.5	60.5
10. *Josie and the Pussycats*	7.11	19.5	68.4
11. *Sonny and Cher*	7.11	19.5	19.6
12. *Sanford and Son*	6.75	18.5	14.0
13. *Room 222*	6.4	17.5	23.3
14. *Bridget Loves Bernie*	6.04	16.6	17.4
15. *Mary Tyler Moore*	6.04	16.6	15.5

It is interesting to note that only three of these shows (*The New Scooby Doo Movie, Flintstones Comedy Hour,* and *Josie and the Pussycats*) were seen on weekend mornings. The remainder were all prime-time evening programs.[8]

INDUSTRY CODES AND CHILDREN'S VIEWING PATTERNS

Other chapters of this report will consider specific advertising practices by the NAB and NAD codes. Here, we will be concernced only with the relationship between the preceding evidence about children's viewing patterns and how these codes define "children's television."

According to the NAB "Children's Television Advertising Guidelines" (effective September 1, 1976), the guidelines are meant to apply to:

> Advertising of products designed primarily for children, or to advertising which is telecast during programs designed primarily for children or within station breaks between such consecutive programs, designed primarily for children.

In another section of the NAB code, dealing with time standards for children's advertising, "Children's Programing Time" is defined as "those hours, other than prime time, in which programs initially designed primarily for children under 12 years of age are scheduled."

In an earlier version of the code (October 1973), "Children's Programing Time" was defined more simply to apply during "that continuous period of time between the hours of 7.00 a.m. and 2:00 p.m. on Saturday and Sunday." Thus, in practice, the revised

[8] A more recent but less detailed listing of most popular programs shows that, although specific programs have changed, the general pattern has remained constant. As of the fall 1975, the 15 most popular shows among children under 12 were

1 *Six Million Dollar Man,*
2 *Happy Days,*
3 *Emergency,*
4 *Wonderful World of Disney*
5 *Welcome Back, Kotter,*
6 *Little House on the Prairie,*
7 *Shazam/Isis Hour,*
8 *Swiss Family Robinson,*
9 *Good Times,*
10 *Scooby Doo, Where Are You?,*
11 *The Waltons,*
12 *Land of the Lost,*
13 *Sanford and Son,*
14 *Rhoda,*
15 *When Things Were Rotten*

As in 1973, just three of the top 15 programs appeared on Saturday morning (#7, #10, #12), the remainder were prime-time programs

language of the 1976 code extends the applicability of the guidelines very little. They now apply only to programs shown on weekend mornings and to a limited number of other programs oriented specifically to children (such as *Captain Kangaroo* and occasional afternoon children's "specials"). The guidelines do not apply to most afternoon programming nor to prime time—which are periods of substantial child viewing, as we have seen. In fact, children on average do only about 15 percent of their viewing at times when advertising is regulated by guidelines intended to protect children. Only 3 out of the 15 most popular programs among children are broadcast during this so-called "Children's Programing Time."

At first glance, the NAD guidelines seem to be broader in application. They are based not only on a program's intended audience, but on the actual composition of that audience. They are meant to apply both to "children's programs" (i.e., programs intended primarily for children) and to those "programs in which audience patterns typically contain more than 50 percent children."

In practice, however, these guidelines rarely apply outside of weekend mornings. Population statistics indicate that children between the ages of 2 and 11 comprise approximately one-fifth of the U.S. population. (As of September 1975, Nielsen estimated that there were 34.81 million children, out of a total viewing audience of 200.17 million persons, so that children ages 2 through 11 represented 17.4 percent of the total viewing audience.) Thus, there are far fewer potential child viewers than nonchild viewers. For a program to attain an audience of 50 percent children, more than four times as many potential child viewers must watch the program for every potential adult viewer.

This means that the application of the NAD guidelines is determined at least as much by adult viewing patterns as by children's. As table II-5 indicates, only three of the 15 most popular shows among children in 1973 (*New Scooby Doo Movie, Josie and the Pussycats, Flintstones*) had audiences that were more than 50 percent children. For the three most popular shows—*Brady Bunch, Partridge Family, World of Disney*—children comprised 40.2, 34.3, and 27.5 percent of the audience respectively. Moreover, according to 1975 Nielsen data, the average network children's program attracted an audience of 3.94 million children, out of a total 6.73 million viewers (58.5 percent children), whereas all network programs shown from 7:30-9:00 p.m. attracted an average of 5.43 million children as part of a total audience of 26.28 million viewers (20.7 percent children). Thus, audiences for early evening prime-time programs contained, on average, nearly 1.5 million more children than the audiences for programs intended specifically for children. In light of these figures, it appears that "children's programing" is being defined partly by a program's popularity among children, but also partly by its *unpopularity* among adults.

Critics have charged that as a result of these policies, children are exposed to a large amount of advertising not intended for them and not covered by regulations ostensibly intended to protect them. This includes advertising for potentially hazardous products—such as nonprescription drugs, alcoholic beverages, power tools, household cleaners, and other chemical products—products for which advertising is not permitted during children's viewing hours. The critics assert that if such advertising is designed to motivate adults to use them, it may also motivate children to use them.

Two counterarguments are offered. First, that children are interested only in products appropriate to their ages (toys, snack foods, etc.) and disregard commercial messages that are obviously adult-oriented. Second, that when children are a minority of the total audience (e.g., during prime time), they are most frequently watching television in the company of adults, who can correct any potential misunderstandings of adult-oriented advertising.

SUMMARY: NEEDED RESEARCH ON CHILDREN'S VIEWING PATTERNS

It is clear that watching television is a nearly universal experience for children growing up in this country. Most children begin watching television at an early age. After age 2, the majority of children watch some television every day and average between 3 and 4 viewing hours per day through age 11. This volume of television viewing means that a child will see some 20,000 commercial messages each year, or approximately 3 hours of television advertising each week.

We have seen that some children are likely to be watching television at any time of the day or night, but that their viewing is heaviest during prime-time

evening hours and late afternoons (more than half of viewing by children ages 2-11). The weekend daytime "children's hours" represent less than one-fifth of children's total weekly viewing. We have also seen that very young children tend to prefer specifically child-oriented programs, but that their tastes rapidly broaden to include virtually the entire spectrum of program types. Thus, by the time a child leaves elementary school, his or her program preferences are likely to be closer to those of adults than those of preschool siblings.

On the whole, knowledge of children's viewing patterns is fairly extensive, especially in comparison with other areas reviewed in this report. One topic deserving further research attention is the influence of factors in the background and environment of children which might determine individual viewing patterns. Another important issue: Should "children's television" be defined for regulatory purposes as programs intended specifically for children, or should the definition include any program watched by a substantial number of children? If the latter, how should the term "substantial" be defined?[9] We have seen that most of children's television viewing, and therefore the commercials they are exposed to, occurs at times other than those covered by children's advertising guidelines

Most of the research (and virtually all of the laboratory studies) conducted to date on the effects of television advertising on children have been concerned with child-oriented commercials. Research is needed that will examine such questions as: Do children discriminate in any significant ways between programing or advertising intended for children and that intended for adults? How much attention do children give to adult-oriented commercials? How do they respond to them? Is there a potential for children to misunderstand commercial messages addressed to adults? Is a child's reception of adult advertising affected by the presence or absence of adults? Some of these questions are touched upon in other sections of this report

[9]The consumer advisors to the FTC's Children's Television Advertising Project proposed two categories of advertising affecting children, each with its own set of regulations (1) A "children's commercial" would be defined as "a commercial in or near a program for which children comprise over 50 percent of the audience," and (2) a "family commercial" would be defined as "a commercial in or near a program for which children comprise over 20 percent but not more than 50 percent of the audience" (Consumers Advisors, 1974) According to these standards, 7 out of the 12 prime-time programs most popular with children (see table II-3) would be classified as "family programing".

Part II

LITERATURE REVIEWS

As indicated in the Introduction, chapters 1 through 10 in this section review the existing research relevant to the 10 key issues we have identified. As a result of organizing the review in this way, the same study may be cited in several chapters. For example, results from Atkin's study (1975f) of "parent-child communication in supermarket breakfast selection" are discussed in the chapters on premium offers (4), television food advertising (7), and parent-child relations (10). In addition, a specific policy question may be treated in relation to more than one issue. Thus, the question of the clustering of ads is discussed in terms of the program-commercial separation issue in chapter 1, and as a "volume" issue in chapter 8.

Finally, we remind the reader that 21 "key studies" are reviewed technically in appendix A. A list of the studies included in this review appears at the beginning of the appendix, page 289.

Chapter 1

CHILDREN'S ABILITY TO DISTINGUISH TELEVISION COMMERCIALS FROM PROGRAM MATERIAL

In its 1974 inquiry into children's programing and advertising practices, the FCC called attention to the Federal Communications Act requirement that all advertisements on radio and television indicate clearly that they are paid for and by whom

> The rationale behind this provision is, in part, that an advertiser would have an unfair advantage over listeners if they could not differentiate between the program and the commercial message and were, therefore, unable to take its paid status into consideration in assessing the message. (FCC, 1974)

In considering the question of fairness to young viewers of television advertising, the Commission was concerned with two different but related kinds of viewer comprehension: The first involves the ability of a viewer simply to perceive commercials as distinct and separate material from the adjacent programing; the second deals with the viewer's understanding of the selling purpose of television commercials. For adult viewers, we can generally assume that perception of a television advertisement is accompanied by an understanding of its promotional purpose. The same assumption cannot be made when the viewers are children That is, some children may be able to correctly identify a television message as a commercial and still not comprehend its purpose.

We must consider two aspects of comprehension when questioning whether a child's inability to make accurate distinctions between commercial and program material may provide the advertiser with an unfair advantage

1. Do children perceive commercial messages to be distinct and different from program content? What conditions act to blur children's perception of the separation between commercial advertisements and program content? To the extent that children do *not* spontaneously separate commercial and program content, what can be done to assist them in making the distinction?
2. To the extent that children *do* distinguish commercials from program content, are they able to assign different intentions to the two? Specifically, do children identify the selling of a product as the intention of a commercial, and do they distinguish this intention from the intention of program content? Finally, to the extent that children perceive commercials to be distinct from programs and are able to understand the sales intention of the commercials, does this awareness act as a mediator between commercial messages and their resulting persuasive effects?

CURRENT AND PROPOSED REGULATIONS

In the course of its 1974 inquiry, the FCC reported that children, especially young children, apparently have considerable difficulty distinguishing commercial from program matter. The FCC referred to research evidence which found that children do not begin to understand the selling intent of commercials until they have started grade school.[1] On the basis of the information the Commission had gathered, it concluded that:

> If advertisements are to be directed to children, then basic fairness requires that at least a clear separation be maintained between the program content and the commercial message so as to aid the child in developing an ability to distinguish between the two.

The Commission suggested that either an announcement or some form of visual segment might be used before and after each commercial interruption.[2] Following discussion that same year with the Commission's chairman and staff, the NAB amended its advertising code in 1975 to take this basic fairness requirement into account: "Commercials, whether live, film or tape, within programs initially designed primarily for children under 12

[1] The studies referred to by the FCC (Blatt, Spencer, and Ward, 1972; Ward, Reale, and Levinson, 1972) are discussed later in this chapter

[2] The FCC did not consider "clustering" of commercials at the beginning and end of a program to be necessary in providing a clear separation between advertising and program content (see later in this chapter and also chapter 8)

years of age shall be clearly separated from program material by an appropriate device "[3]

The FCC also identified a specific advertising practice—the use of program characters to promote products ("host-selling")—which, in its opinion, takes unfair advantage of children by making differentiation of commercials more difficult. Two problematic effects of host-selling were pointed out by the FCC. (1) the program and the commercial become interwoven, thereby hindering the distinction between them, and (2) the sales technique takes advantage of the trust which children place in program characters. The Commission expressed the belief that "... the use of a program host, or other program personality, to promote products in the program in which he appears is (not) a practice which is consistent with licensees' obligation to operate in the public interest."[4]

In 1975, both the NAB and the NAD incorporated a restriction on host-selling into their codes for children's advertising. The NAB Code states:

> No children's program personality or cartoon character shall be utilized to deliver commercial messages within or adjacent to the programs in which such a personality or cartoon character regularly appears. This provision shall also apply to lead-ins to commercials when such lead-ins contain sell copy or imply endorsement of the product by program personalities or cartoon characters.

Similarly, the NAD rules specify that "program personalities or program characters (live or animated) on children's programs should not be used to promote products, premiums, or services in or adjacent to any program where the personality or characters appear."

Neither organization has made any formal attempt to address the question of children's comprehension of the different intentions of advertising and programing. Clearly, this issue and its resolution are far more complex and difficult than the physical separation of commercials and programs. The FCC acknowledged this problem in its public remarks during the 1974 inquiry: "We recognize that this (the maintenance of 'at least a clear separation') may be an incomplete solution to the problem ... the broadcast of an announcement and/or a visual device can only aid children in identifying commercials."

The responsibility for providing a separation device between commercials and programing, intended specifically for children has been assumed by the individual broadcaster. Each of the three networks has designed its own nonprogram "bumpers" to serve this function during children's programing: ABC inserts a 5-second animated musical logo ("Funshine Saturday") before each commercial break. CBS presents a brief animated segment with an audio announcement (e.g., "We'll return right after these messages," "and now back to our program") before and after each set of commercials. NBC displays a 3-second program title card on the screen, with no audio announcement. Television stations owned by Post-Newsweek have been experimenting with a format which clusters commercials at the beginning and end of each children's show, preceded in each case by the following voice-over notification:[5]

> Post-Newsweek stations do not place commercials within children's programs. It is our policy to cluster commercials at the opening and closing of each program, so there will not be any confusion between the sales message and the entertainment portions of the program. We hope you like this approach to children's programing and would enjoy hearing your comments.

[3] The specific form that this separation device should assume was not specified by the NAB beyond the indication that the sole use of a "fade to black" would not be adequate.

[4] While the Commission noted that the use of program characters in commercials on programs other than the ones on which they appear might still take unfair advantage of the trust relationship between the child and the performer, it recognized that it might not be practically feasible for small stations to avoid using children's show personnel in commercial messages on other programs.

[5] The effect of this clustering approach on children's ability to discriminate between commercial and program material is considered in a study conducted by Duffy and Rossiter (1975), described in the Research Evidence section of this chapter (and also chapter 8).

As is apparent from these examples, no standardized procedure exists for providing the required "clear separation" between commercial and program material.[6] Later in this chapter, we will examine the question of whether the various devices currently in use actually achieve their intended effect of providing children with a clearly distinguishable separation between advertisement and program content.

With regard to the voluntary ban on host-selling, the broadcasters have again assumed primary responsibility for interpreting and carrying out the code. The network or station sells advertisers the opportunity to have a commercial run during a specific program on a given date. Then the broadcasters themselves put together the actual sequence of commercials in each of the commercial groups ("pods"), and must separate commercials featuring children's program hosts and characters from the programs in which these hosts or characters appear.

RESEARCH EVIDENCE

Perception of commercials as distinct from programs. In a pilot study conducted by Blatt, Spencer, and Ward (1972), 20 children ranging in age from 5 to 12 years, were exposed to a videotape of typical Saturday morning programing and commercials and then interviewed the following day about what they had viewed. The authors found that although the children in all age groups could identify the term "commercials," the younger (kindergarten) children exhibited some confusion about the concept and judged the relationship between commercials and programs on the basis either of affect ("commercials are more funny") or of coincidential reasoning ("commercials are shorter than programs").

Subsequent research extended and confirmed the findings of this exploratory effort (Ward, Reale, and Levinson, 1972; Ward and Wackman, 1973). Personal in-home interviews were administered to a sample of 67 children, ranging in age from 5 to 12 years. Children's responses to the direct question, "What is the difference between a TV program and a TV commercial?" revealed clear differences between younger (5-8) and older (9-12) children in the degree of verbalized discrimination between programs and commercials. Younger children generally exhibited a low level of differentiation, often based on recognition of different perceptual cues, (e.g., "commercials are short and programs are long"). In contrast, most of the older children's responses indicated a high level of differentiation, based upon some understanding of the meaning of the message (e.g., "programs are supposed to entertain," "commercials try to sell things").

These findings consistently demonstrate a positive relationship between children's age and their ability to describe the difference between commercial and program material. More specifically, the younger children (ages 5-8 years) either expressed confusion about the difference or used superficial perceptual or affective cues as the basis for the distinction. This evidence appears to have been influential in the FCC's 1974 recommendation to licensees that special measures be taken to ensure an adequate separation between television advertisements and programs directed to all children.

All of these studies were based solely on children's verbal responses to abstract questions and not on other measures of their ability to discriminate between program and commercial material in an actual viewing situation. A number of other studies monitored children's attention patterns in an ongoing viewing situation. In one early attempt to examine attention patterns prior to and during commercial messages, mothers of 5- to 12-year old children were trained to observe and record information about their children's normal viewing behavior (Ward, Levinson, and Wackman, 1972). Analysis of these data indicated a tendency for the children to exhibit a drop in attention when a commercial was shown, compared with their attention to the prior programing. In addition, the children's attention generally continued to decline during later commercials, both within a series of commercials and over the course of the program. However, the smallest decreases in attention occurred among the youngest (5-7) viewers, that is, they displayed higher levels and more stable patterns of attention to both commercials and programs other than the older children.

[6] However, the NAB code does specify that the number of program interruptions in children's programing time shall not exceed two within a 30-minute program or four within a 60-minute program. Another code provision specifies that a maximum of 9 minutes 30 seconds of nonprogram material is permitted in any 60 minute period during children's programing time. Hence, commercials may be (and are) shown at the beginning and at the end of programs, and between programs during station breaks.

The researchers speculated that this greater stability in younger children's attention patterns across both program and commercial materials may be evidence of the difficulty they have in discriminating between the two. The researchers therefore inferred that the lower levels and greater differentiation in older children's attention to commercials indicate their greater awareness of and immunity to television advertising.[7]

In a subsequent experimental study of children's attention to television commercials, the investigators adopted another point of view, hypothesizing that younger children are likely to display *more* differential attention to television material if the material is varied in the complexity of its stimuli (Wartella and Ettema, 1974). They based their hypothesis on the premise that the younger and more "perceptually bound" the children, the greater the influence of perceptual, rather than cognitive stimuli on their attention patterns. Twelve commercials of varying visual and auditory complexity were interspersed, in three blocks or "pods," throughout a television program shown to 120 children 3 to 8 years old.[8] The criteria and methods used to record the degree of children's attention were the same as those employed in the earlier study by Ward et al. As the investigators expected, the youngest (3-4) viewers showed the greatest differences in their attention to high versus low complexity commercials and were generally less stable in their level of attention from one observation to the next. Commercials rated high in *auditory* complexity were given more attention by the children than those rated low in this quality, regardless of the visual complexity rating.

As in the Ward, Levinson, and Wackman study, the researchers interpreted the tendency of the children to change their level of attention during the shifts between program and commercial material as an indication of the children's awareness of the difference between them. However, we cannot conclude, on the basis of this evidence alone, that differences in attention level to programing and adjacent advertising are attributable to the children's recognition of the distinctive nature of the two. The Wartella and Ettema findings suggest only that the degree of attention paid to television material may be a function of the material's specific audio-visual features, quite apart from whether children perceive the material as a commercial or a program.

Another study of the relationship between changing perceptual features of television stimuli and children's attentional behavior measured preschool children's visual attention to varied television material coded for the presence or absence of particular stimuli (Levin and Anderson, 1976). The researchers found that specific features of the material, such as lively music and active motion, as well as more generalized visual and auditory changes, enhanced the children's attention to the screen. Although these findings were based upon children's responses to program material, rather than to advertising, it is plausible to expect that similar changes in attention might occur as a consequence of the abrupt perceptual changes in the shifts between programing and commercial messages. However, the relative influence of perceptual and cognitive factors on children's attention patterns remains a moot point until children's ability to distinguish program and commercial content is directly measured. Specifically, the effectiveness of current network separation devices needs to be subjected to testing.

Effects of clustered commercial formats. Some research has been conducted on children's responses to clustered versus dispersed commercial formats (Atkin, 1975b, Duffy and Rossiter, 1975). Atkin randomly assigned 500 preschool through 5th grade children to view seven commercials which were either dispersed throughout a cartoon program or clustered before or following the show. The results indicated that overall attention to the commercials was significantly higher in the clustered presentation. However, no significant differences were found in the children's recall of the commercials or expressed preferences for advertised products.

When Duffy and Rossiter exposed 1st and 4th grade classes to the two commercial formats (the clustered commercials were preceded by a voice-over notification), the researchers reported that the first graders watching the clustered version paid significantly more attention to the commercials than the fourth grade children. Among the fourth graders, the dispersed format produced significantly

[7] It should be noted that all children were not observed viewing the same television material; the particular shows and accompanying advertising monitored in the study reflected the preferences of each viewer.

[8] The children were separated into three age groups and the members of each age group were randomly assigned to view one of four versions of this program. In each version, the order of commercials within each block was rotated. However, the blocks themselves were not rotated within the program.

higher attention patterns.[9] As in the Atkin study, however, the two formats made no significant difference in recall of advertised brand named by either age group.[10] (Children at both grade levels tended to verbalize a preference for the clustered commercial treatment, although approximately 40 percent of the 1st graders either could not verbalize a clear differentiation or were unable to offer a reasoned preference between the two formats.)

In neither study was children's ability to discriminate between commercials and program material directly assessed. However, Dufty and Rossiter inferred, on the basis of data showing 1st graders to be less attentive to dispersed commercials, that the clustered format did *not* aid the younger children in discriminating between the commercials and the program. Since the clustered structure contained a commercial warning announcement and the dispersed version did not, the effectiveness of the warning per se cannot be determined without testing a dispersed-plus-warning version.

Effects of host-selling. Program hosts and characters are now prohibited from appearing in commercials within or directly adjacent to their programs. In light of this restriction, it is of interest to note a study which examined the effectivenss of a "Pebbles" cereal commercial featuring the Flintstones cartoon characters (Atkin, 1975b). The children were observed to pay slightly more attention to the Flintstones cereal advertisement when it was shown in the context of a Flintstones cartoon program, rather than with a Bugs Bunny cartoon. The younger children (3-7 year olds) in the study expressed significantly more desire for the cereal when the commercial appeared on the same tape as the Flintstones program. The younger children were also more likely to mistakenly recall the Flintstones characters as eating cereal in the program rather than in the commercial.

Atkin also compared children's responses to the commercial when shown within the Flintstones cartoon ("adjacent" condition) and shown outside (but along with) the program in a cluster of commercials ("nonadjacent" condition). Presentation of the advertisment in the clustered, nonadjacent condition produced both greater attention to the commercial and somewhat more expressed desire for the cereal. Children in the nonadjacent condition were also slightly *less* accurate about where the cereal eating took place.

As Atkin points out, the findings suggest that the nearby presence, rather than direct adjacency, of the program to the commercial may be sufficient both to increase the effectiveness of a commercial featuring the program characters and to create confusion between the two, especially for younger children.[11] As noted above, current NAB code restrictions prohibit only direct adjacency. To the extent that the children's desire for the product was enhanced by their identification with the familiar cartoon characters, rather than by program-commercial confusion, the current industry restrictions on the *placement* of host-selling commercials may be addressing only a part of the full issue.

Perception of the intent of commercials. In the Ward and Wackman (1973) study cited earlier, the 5-12 year olds were also questioned about the purpose of commercials ("Why are commercials shown on TV?"). Nearly one-half (47 percent) of the children verbalized low levels of understanding of the selling motives of commercials. The least aware children were more likely to be younger (5-8) and to be evaluated as responding at a "lower cognitive level."[12] In discussing these findings, the researchers offered this interpretation:

> While young children may simply lack information about the nature of television advertising, or fail to comprehend this information, it may be that low cognitive-level children cannot abandon their own perspective and take the perspective of the advertiser when viewing commercials.

Robertson and Rossiter (1974) hypothesized that the ability to recognize the persuasive intent of commercials would depend in part upon the child's making a number of prior cognitive distinctions (a) discrimination between programing and commercials,

[9] Atkin's overall finding of higher attention to clustered commercials may be partially explained by the fact that over half (57 percent) of the children included in his sample were less than 8 years old.

[10] Interestingly, an inverse relation was found between visual attention and brand name recall. On the whole, the least well-watched commercials were the best recalled. As the authors pointed out, this discrepancy suggests the importance of auditory stimuli and attention.

[11] Atkin's conclusions are discussed further in chapter 3.

[12] The researchers constructed a three-level scale of cognitive functioning based upon Paiget's theory of cognition development. Lower cognitive level responses were identified with Paiget's "preoperational" stage of thought.

(b) recognition of an external source (i.e., a sponsor), (c) perception of an intended audience as the target of the advertiser's message; (d) awareness of the symbolic, as opposed to realistic, nature of commercials; and (e) recall of personal experiences in which discrepancies had been discovered between products as advertised and products in actuality. Interview responses from a sample of 289 1st, 3d, and 5th grade boys offered support for this hypothesis, suggesting that those children who were capable of recognizing commercials as persuasive messages met these antecedent or perhaps concurrent criteria.

As in the Ward and Wackman study, Robertson and Rossiter found the development of persuasive-intent awareness to be positively related to age. Whereas just over half (53 percent) of 1st graders exhibited understanding of the selling intent of television advertisements, almost all 5th graders (99 percent) understood it. As the authors explained, "Age, as a variable, reflects not only maturational factors but also cumulative experience with commercial messages."

These two studies present complementary approaches to the efforts to examine the development by children of a mature concept of television advertising. Ward and Wackman's study delineates certain cognitive abilities which seem to underlie children's grasp of the nature of commercials. Robertson and Rossiter's analysis identifies a number of specific cognitive distinctions which children make when they are able to comprehend the intent of commercial messages.

Persuasive effects of commercials. There is consistent evidence, based on verbal reports, that younger children who do not understand the persuasive intent of commercials are more likely to perceive them as truthful messages, whereas older children who can discern persuasive intent tend to express skeptical, less accepting attitudes toward commercials (Robertson and Rossiter, 1974; Ward, Reale, and Levinson, 1972; Ward and Wackman, 1973). In addition, various investigations of the influence of television advertising on children's purchase requests have revealed that younger children express higher levels of purchase requests for certain advertised products than older viewers (Atkin, 1975g, Gene Reilly Group, 1974a, Ward and Wackman, 1972, Robertson and Rossiter, 1974).

Robertson and Rossiter found, for example, that more than half (53 percent) of the first graders interviewed "wanted every toy or game they saw advertised on television," as compared with only 6 percent of the fifth grade children. Observing that older children have a better understanding of the persuasive intent of commercials, these researchers concluded that "the development of persuasive-intent attributions acts as a cognitive defense to persuasion."[13] This is not to say, of course, that commercials do not influence purchases or purchase requests. The economic realities of commercial broadcasting offer clear evidence that commercials can sell products to viewers even when their sales intent is clearly understood.

SUMMARY OF RESEARCH EVIDENCE

Children's ability to distinguish between program and commercial content has only been measured indirectly, using either verbal or attentional measures. Studies using verbal responses to general questioning found a positive relationship between age and children's verbal ability to differentiate between programs and commercials. Younger children, particularly below ages 8 or 9, either express confusion or base their discrimination of commercials on affect or on superficial perceptual cues, such as a commercial's shorter length. Older children are able to distinguish program and commercial material on the basis of an overall understanding of each message's meaning.

Studies of visual attention patterns have tended to infer discrimination of commercial and program material from observed changes in children's attention levels between program segments and adjacent commercial announcements. However, there is also evidence suggesting, alternatively, that these changes in attention are attributable to the specific audio-visual changes taking place between advertising and programing sequences. Further research is required before we can determine the relative influence of specific perceptual features of commercials and commercial breaks versus children's recognition of the distinct nature and purpose of commercials. The effectiveness of current network separation devices also remains untested.

[13] The relative appeal of advertised toys and games for 1st and 5th grade children may also be a factor. See chapter 8 for further discussion of this question.

Comparisons made between dispersed and clustered commercial formats indicate that children, and particularly the younger children 3-8, are more attentive to clustered commercials and express a preference for this form of presentation No significant differences were found between the two formats in children's acquisition of information from the commercials or in their expressed desires for the advertised products

The single study investigating the influence of host-selling revealed greater desire among younger children (below 8) for the advertised product when the commercial presented the animated character featured in the adjacent program On the basis of this evidence, however, it cannot be determined whether the younger children's increased product interest was due to confusion between the program and the commercial or to heightened identification with the character

A substantial proportion of children, particularly those below 8 years, express little or no comprehension of the persuasive intent of commercials. Development of this understanding may depend upon children's general level of cognitive functioning as well as their ability to make a number of specific prior distinctions about the nature of commercials, beginning with the discrimination of commercials as distinct from programs

Younger children who are unaware of the selling motives of television advertising tend to express greater belief in commercials and a higher frequency of purchase requests for certain advertised products than do older children who display an understanding of the intent of commercials These differences suggest that a more mature concept of the nature and purpose of advertising acts as a mediating influence between commercials and their effectiveness as persuasive messages

NEEDED RESEARCH

Research evidence indicating that young children have difficulty discriminating between programing and advertising has already led to the banning of one type of host-selling and to the requirement of a clear separation device at commercial breaks on children's programs. However, neither the ability of children to distinguish commercials from programs nor the separation devices currently used to facilitate this distinction has been directly assessed Therefore, there is still a question as to whether younger children especially can tell the difference between programs and commercials, and whether current forms of program-commercial separation are achieving their intended purpose Both of these questions are deserving of and amenable to further testing based on the useful groundwork provided by existing studies.

For example, the separation devices could be tested by exposing randomly assigned groups of children to a television program with standard commercial breaks using one of the separation devices. A "no device" version of the program could provide a baseline measure Children's attention in this ongoing viewing situation would be monitored In addition, each child might be asked to identify (by means of a simple response, such as raising one hand, pressing a button, or telling the researcher) when he or she was seeing either a commercial or a program. Alternatively, if the videotape were stopped at specific points—for example, just after the separation device—children could be asked to anticipate ("guess") what they thought was going to happen next

In light of previous studies in which auditory stimuli were found to influence children's attention to program and commercial material, it would also be instructive to have the children perform these tasks on the basis of either visual or sound-track content alone, as well as under conditions in which both auditory and visual information were available. Comparisons of the various testing situations should reveal the effect of each separation device auditorily and/or visually, and should also reveal the age-related ability of the children to distinguish commercials from programs, and their ability to identify or anticipate the onset of the commercials.

The specific program and commercial material to be used in such a study should be selected with care. For example, commercials for products familiar to the children may be more easily recognized as advertising. Similarly, children may associate commercials with certain frequently used audio-visual techniques, such as quick-cut editing style ("montage") or musical jingles. The reasons that the children differentiate a given commercial from a given program should be probed, in order to gain insight into the specific content or characteristics that may serve as identifying cues for children. Bearing in mind the existing research findings of consistent

differences in the discriminatory abilities of younger and older children, investigations should take special care to raise these questions among preschool (3-5) as well as among older (6-12) children.

The particular program-commercial combinations also warrant careful consideration. For instance, do children find it more difficult to discriminate adjacent programs and commercials when both are in animated form; or when the same, or similar, characters appear in both the program and the advertisement? A given program and its adjacent advertising should be considered as a hypothetical continuum from similarity to contrast, with various points of minimal difference below which children of a particular age might not be able to make an accurate distinction between them. If information were also obtained verbally from children about their abstract understanding of the nature and purpose of television advertising, then the specific perceptual attributes used by children of different ages to make program-commercial distinctions could be compared against their more general level of conceptualization.

How children *acquire* an understanding of the persuasive intent of commercials is another important line of needed research. There is considerable research evidence available indicating that children below ages 7 or 8 tend not to have this understanding, and that young children without this awareness respond differently to television advertisements, in terms of both greater expressed belief in their truthfulness and more frequent requests for the advertised products. Researchers should examine the relationship between a general understanding of the purpose of commercials and specific attributes of commercials, such as particular product claims or qualifiers. If such investigations were systematically conducted, we might develop measures which would help us to predict when a particular advertising practice would be deceptive (i.e., misunderstood) for children at a given age and level of cognitive functioning.

Chapter 2

THE INFLUENCE OF FORMAT AND AUDIO-VISUAL TECHNIQUES ON CHILDREN'S PERCEPTIONS OF COMMERCIAL MESSAGES

Many audio-visual techniques in commercials are simply aimed at gaining and holding children's attention. Policy issues arise with regard to production techniques such as those which may tend to misrepresent the appearance of children's products or exaggerate product performance. Another issue concerns the ability of children to understand descriptions of product characteristics in commercials or the meaning of disclaimers and qualifying statements.

CURRENT AND PROPOSED REGULATION

The television and advertising industries have formally acknowledged the influence of commercial formats and production techniques on children's perceptions of television advertising. The NAB, for example, offers the following statements of principle in its 1976 code.

> In order to reduce the possibility of misimpressions being created, all information (on the characteristics and functional aspects of a product or service) shall be presented in a straightforward manner devoid of language or production techniques which may exaggerate or distort the characteristics or functions of a product.
>
> In order to help assure that advertising is non-exploitative in manner, style, and tone, such advertising shall avoid using exhortative language. It shall also avoid employing irritating, obtrusive or strident audio-techniques or video devices, such as cuts of less than one second in length, a series of fast cuts, (and) special effects of a psychedelic nature (e.g., flashing colors, flashing lights, flashing, speeded copy, or other effects which could overglamorize or mislead).

With regard to the presentation of advertising, the NAD's children's advertising guidelines (1975) call for particular care by advertisers to assure that

> Copy, sound, and visual presentations, as well as the advertisement in its totality, do not mislead on performance characteristics such as speed, method of operation, size, color, durability, nutrition, noise, etc.

In addition to these general statements, both industry codes include guidelines for the provision of specific kinds of information about product characteristics and functions. For example, the NAB Code specifies that advertisements intended for children shall

> Provide audio disclosure when a product requires assembly,
>
> Provide audio or video disclosure as to a product's method of operation and source of power,[1]
>
> Provide simultaneous audio and video disclosures when items, such as batteries needed to operate a product as demonstrated in the advertising, are not included, and
>
> Avoid competitive/comparative superiority claims about (toys and other durable) products.[2]

The NAB guidelines established for toy products contain the most explicit instructions for the production of television advertisements. Thus, in order that the "audio and video production techniques (shall) not misrepresent the appearance and performance of toys," toy advertising shall seek

> To present the toy on its actual merits as a plaything. It shall neither exaggerate nor distort play value.
>
> To limit any view of a toy or demonstration of its performance to that which a child is reasonably capable of reproducing.

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[1] The code further indicates that the sole use of a superimposed video title is not considered to be adequate.

[2] Such claims are disallowed because *even when true* it is believed such references may make a child dissatisfied with a toy he already possesses or may receive. (Italics added.) This reason is particularly noteworthy in that it attempts to take into consideration other undesirable effects beyond the creation of misimpressions about products.

To employ the complete and authentic sound(s) of the toy,

To confine their use of generic stock film footage, real-life counterparts of toys, fantasy and animation (in none of which either a child or toy appears) to the first one-third of the commercial, and

To clearly disicose the original purchase in the body of the commercial and (by video, with audio disclosure where necessary for clarification) in the closing 5 seconds

The NAB guidelines also urge that music, sound effects, volume level, tempo, and other audio techniques be used with restraint and discretion In terms of the video portions of children's commercials, caution is advised in the use of certain video techniques (e g , camera angles, special lenses, special lighting, and dazzling visual effects). The guidelines point out that the use of such techniques becomes questionable when the appearance or performance of a toy is distorted or exaggerated

INCIDENCE OF SPECIFIC AUDIO-VISUAL FEATURES

Several recent studies have examined the incidence of specific techniques and features in commercials directed at young audiences (Atkin, 1975d, Barcus, 1971, 1975 a&b, Doolittle and Pepper, 1975, Winick, Williamson, Chuzmir, and Winick, 1973) Typically, these studies video-tape a sample of commercials broadcast during Saturday morning children's programing and later analyze the material for the presence or absence of various features (e g , animation, form of product display, particular product claims or disclosures, etc) The analysis is generally based upon a previously defined coding system

Although this method of content analysis provides a systematic procedure for describing the frequency of particular features of advertisements, such descriptions are not comprehensive Rather, they represent the features and techniques which the particular researcher considers interesting or important Further, by sampling commercials aired on weekend mornings,[3] these researchers have limited their analyses to only a small portion of the advertising to which children are usual' xposed. Still, these studies are useful in their descriptions of the specific stimulus properties of advertising messages directed to children

A study by Barcus (1975a), the most recent of these analyses of children's commercials, coincides most closely with current practices and regulations and is therefore the primary source of incidence information reported below. Barcus analyzed a sample of 403 (137 different) commercials broadcast on a weekend morning during April 1975, appearing on five Boston stations, including three network affiliates and two independent UHF stations Other studies, in particular an earlier analysis by the same author (Barcus, 1971), will serve as useful sources of comparative or supplementary descriptions in the following summary

According to these content analyses, television advertising directed primarily at children may be characterized as follows

1 Almost all commercials are 30 seconds in length The percentage of broadcast time devoted to commercial messages has decreased since 1971 (15 9 percent in 1975 from an earlier 18 8 percent), reflecting changes in the NAB code as to the maximum amount of advertising permissible during children's programs (9 5 minutes hour as of January 1976) Nevertheless, there are about as many commercials per hour now as there were in 1971 Apparently, this has been accomplished by reducing the average length of the commercials
2 The types of products and services promoted to children represent a fairly limited range of items cereals (25 percent), candy sweets—e g., cakes, cookies, fruit drinks (25 percent); toys (18 percent), eating places (10 percent), and miscellaneous products, such as movies (10 percent) (Barcus, 1975a) Only slight shifts in the incidence of these product categories were reported from the earlier Barcus figures, cereals, candy/sweets, and toys were the staples for both periods Atkin's comparison of Saturday morning commercials appears in 1972 and 1973 found a substantially higher frequency of toy advertisements (58 percent), but this is attributable to the November sampling, when pre-Christmas toy promotion is increased
3 More than half (58 percent) of the commercials use a live-action format, the remainder

[3] The major exception is a study of weekday afternoon commercials (Barcus, 1975b).

employ animated techniques, either in combination with live-action (26 percent) or alone (16 percent) Again, Barcus found little change in the use of these general format styles between the two time periods (1971, 1975) Product classes differ substantially in their mode of presentation toy advertisments are almost exclusively live-action (94 percent)[4] as are eating places, candy and sweets commercials tend to be about evenly divided between live-action and animation; and cereal commercials rely heavily on animation (80 percent). In part, this difference probably reflects toy advertisers' compliance with the restrictions imposed on the use of fantasy and animation in the NAB guidelines

4 Toy commercials usually display the product in use—i.e , show children playing with the toy (90 percent)[5]—whereas cereal advertisements are about equally likely to use a picture of the product as they are to depict a person eating it. While differences in specific code requirements may help to explain the choice of display style, it is assumed that the way these products are presented also suits the objectives of the advertisers[6] Toy advertisers undoubtedly find it desirable to show the toy itself in active use Analysis of specific product claims indicate that action, speed, and power are among the attributes most often referred to verbally in toy commercials (Atkin, 1975d) In contrast, cereal marketers prefer to use animation and fantasy (animated "presenter" characters are often engaged in short dramatic skits during the body of the commercial) to convey their product messages

5 With regard to physical and temporal settings, most children's commercials occur in the present (86 percent) and take place in generalized locations outdoors (34 percent) or in or around the home (31 percent). This description of commercial settings is consistent with those of earlier studies (Barcus, 1971, Winick et al , 1973). The use of contemporary, local settings may in part reflect advertisers' attempts to comply with the NAB guidelines, which recommend placing toy products in settings which a child is reasonably capable of reproducing

6 Children's commercials are heavily populated by white males Adult males tend to be the announcers or authoritative voices for products, and both men and boys outnumber females as characters (Barcus, 1971, 1975b, Doolittle and Pepper, 1975, Liebert, Schuetz, and Sprafkin, 1975, Verna, 1975)[7] According to the most recent figures (Barcus, 1975a), almost half (48 percent) of the characters are children, 27 percent are animals and others, 23 percent are adults, and a minor 2 percent are teenagers With the exception of those whose sex was not identifiable, about seven out of ten of these characters were male in the Barcus study. In terms of race, 92 percent of the characters (when race was reported) are white and 8 percent are black, members of other ethnic groups appear to be virtually absent as characters

7 In terms of verbal content, product brand names are repeated an average of 3 5 times per commercial (Atkin, 1975d) Slogans and musical jingles are often used to present brand names or other product-related content (Atkin, 1975d, Winick et al., 1973). Children's commercials also tend to provide little information about the "hard qualities" of products, such as price, size, materials, quantity, durability, etc (Atkin, 1975d; Barcus, 1971, 1975a; Winick et al , 1973). While this finding is rather general and less clearly quantified than those cited above, the infrequency of such descriptions seems inconsistent with the NAB's general guideline stating that "the disclosure of information on the characteristics and functional aspects of a product/service is strongly recommended "

The incidence of disclaimers (e g., "batteries not included," "items sold separately,") is as follows overall, 22 percent of commercials include some kind of audio disclaimer, 11 percent use video disclaimers, and 8 percent present such qualifiers simultaneously in both audio and video (Barcus, 1975a). When compared against Barcus' earlier study, these

[4] Atkin's higher overall incidence of live action (67 percent) is probably due to the greater proportion of toy commercials in his sample (1975d)

[5] In over half of the toy advertisments monitored by Barcus two or more items are displayed together but sold separately (1975b)

[6] In addition although animation is more expensive to produce than live action animated commercials tend to have a longer life i e they do not need updating as often

[7] See chapter 3 Source Effects for further discussion

figures represent an increase in the practice of providing audio and/or video disclaimers.

8 The use of special effects in children's commercials has been examined to some extent. An earlier study, for example, reported 34 percent of the advertisements to be using such "striking visual techniques" as fast-cutting or psych[illegible] effects and almost half (46 percent) to be using "attention-grabbing music" as part of their soundtracks (Winick, et al., 1973). A subsequent study found close-ups in about 40 percent of the commercials, particularly in toy advertising, but there was minimal use of other techniques, such as accelerated or slow-motion or multiple-camera angles (Atkin, 1973d)

In some cases, these and other researchers have gone on to make evaluative judgments about the extent to which the use of such techniques exaggerated a product's attributes. Winick et al. (1973) indicated that exaggerated effects were created by special visual techniques (i.e., "sparkling") in 7 percent of the commercials and by sound effects ("snap or crackle") in 2 percent of the cases. Atkin (1975d) described product performance as being "moderately exaggerated" in about half of the Saturday morning commercials studied. Barcus (1975b) noted individual cases in which the use of particular visual techniques appeared to be potentially misleading or confusing to a young child—for example, the use of tight close-ups to display a doll, without providing a perspective by which a child could judge the doll's actual size.

Unfortunately, the usefulness of such evaluative information is limited The absence of explicit criteria upon which these judgments were based makes their replication difficult, and, more importantly, the question of whether a particular technique exaggerates the attributes of a product needs to be tested against the perceptions of the child viewers themselves In addition, the descriptive power of these content analyses has two major limitations

- Some attributes of commercials, specifically those more quantitative in nature (e.g., numbers and types of characters, brand name references), are amenable to objective measurements, while other le easily measured qualities may evade description For example the emotional tone conveyed by a particular commercial is difficult to code adequately. As Winick et al explain, "the unique ambience of a given commercial is not likely to be captured by content analysis."
- Features which are rare or totally absent but whose inclusion in children's commercials is appropriate or even required may be overlooked, particularly when the primary purpose of such analysis is simply to describe what current messages are like. In the studies reported here the researchers did attempt to include analyses of certain areas where there was a paucity of information about "hard product qualities," or only minimal occurrence of a specific technique (use of off-pace motion)

RESEARCH EVIDENCE

There has been little research on children's perceptions of particular formats or audio-visual techniques in commercials. Much of the research interest in the effects of television advertising on children has concentrated instead on whole commercials, without considering their component features (Robertson and Rossiter, 1974, Ward, Reale, and Levinson, 1972, Ward and Wackman, 1973). Moreover, although individual children's advertisers and their ad agencies often conduct prebroadcast research with children to test the relative effectiveness of alternative strategies or presentations, the results of such in-house testing are not published and are generally unavailable to the public

Studies of television programs Most of the studies that associate television techniques with particular effects upon young viewers have examined programs rather than commercials Considerable research is available, for example, on instructional television material and the effects of various production techniques and other format elements on children's learning patterns. Schramm (1972) has summarized the findings from many of these studies and reports that the following audio-visual techniques seemed to facilitate learning providing viewers with a subjective view (e.g., a camera angle recording what the viewer would see if performing the task himself), increasing the size of printed labels on the screen, and naming objects on the sound track as they are presented on the picture track.[8] On the basis of such findings, Schramm offers the general observation

[8] This finding is of particular interest in considering the effectiveness of the various forms of positive disclosures currently used in children's commercials

hat "what makes the difference is usually . . how the pictorial treatment fits the learning goal"

More recently, in one of a series of such evaluative studies, Friedlander and his associates measured preschool children's comprehension of specific visual and verbal elements presented in a 3-minute segment of an informational television program (Friedlander, Wetstone, and Scott, 1974). Although the segment was generally accepted as age-appropriate material, the results indicated that more than half of the 31 children demonstrated comprehension of less than half of the tested information. Based upon their analysis, the researchers suggest that the failures in comprehension were not necessarily attributable only to the children's cognitive limitations. The lower levels of learning were also related to the use of particular program techniques, such as the presentation of information in only one modality, either visual or auditory, rather than in both.

As final examples of research on the effects of format and audio-visual techniques in television programing, an impressive number of studies have investigated children's responses to the Children's Television Workshop (CTW) production, *Sesame Street*.[9] The CTW research staff developed and sustained a systematic program of child-watching and interviewing during the planning of the program. This formative research provided the basis for later testing of the appeal and teaching value of various production techniques used in the show (e.g., music, animation, puppets) (Lesser, 1974; Palmer, 1972).

Other researchers interested in the particular effects of television on young children have also studied *Sesame Street* programs. For example, Levin and Anderson (1976) measured the attention of 1 to 4 year old children to particular features of the show. By rating the presence and absence of these features in parallel to the ratings of the children's attention patterns, the investigators determined whether attention was increased or decreased during the occurrence of a specific characteristic of the show's content. For example, active movement, animation, letters and script, reverse motion, and visual changes generally tended to elevate attention. Among the auditory characteristics, attention was increased by the presence of lively music, singing, rhyming, sound effects integral to the central activity, and auditory changes in general. The use of other special effects (e.g., pixilation, slow or fast motion) neither enhanced nor lowered attention significantly.

Salomon (1976) used *Sesame Street* material in an attempt to investigate the effects of particular film techniques and formats on the development of corresponding cognitive skills among children. For example, he identified the close-up as a technique which calls upon the skill of relating parts to the whole. A sample of 317 5, 7, and 8 year old Israeli children were tested before and after the first broadcasting season of *Sesame Street*. Salomon found that the children's knowledge of the program's content and their mastery of the selected cognitive skills were unrelated at the beginning of the broadcast season, but these two factors came to be closely interrelated among the heavy viewers of the show. The author surmises that "improvements in skill mastery came to serve the extraction of knowledge." More generally, this evidence is consistent with the notion that the ability of children to acquire and understand information from television is based upon mastery of the particular perceptual and cognitive skills called upon to extract this information from the format in which it is presented ("television literacy"). Moreover, such mastery improves with increased exposure to this kind of material.

Although there are obvious differences between instructional television programs and commercials, this program research can be usefully applied in several ways to the study of the effects of television advertising.

1. In spite of their differences in content and purpose, programs and commercials share many audio-visual characteristics. Therefore, the specific program techniques and formats which have been found to significantly influence attention and facilitate learning are probably worthy of serious investigation within the context of advertising research. As a member of the research staff at Children's Television Workshop has pointed out (Fowles, 1975):

> We can say with great assurance that children 3-10 years old are learning a wide variety of facts, skills, concepts, and attitudes from *Sesame Street* and *The Electric Company*. Since

[9] A number of the most recent studies, including evaluations of several adaptations of *Sesame Street* in other countries, appear in the *Journal of Communications*, 1976, 26, 2.

these programs are not very different from television commercials in their production techniques, communications strategies, and attractiveness to children it would be strange indeed if the learning stopped with a switch of a channel.

2. The research designs and measures developed and used to examine various effects of program material on children may also be appropriate methods for examining the impact of commercial messages. For example, the flexibility and economy of formative research methods used on early *Sesame Street* material may well have come to suit the needs of those broadcasters and regulators who are responsible for screening advertising intended for children and for evaluating its acceptability for broadcast.

3. In the course of studying the extent to which children attend to and learn from particular programs, researchers have raised a number of far-reaching questions about "unintended" effects of this material on children. In the summative evaluation of *Sesame Street*, attempts were made to investigate viewers' attitudes toward school and relations with peers (Ball and Bogatz, 1970, Bogatz and Ball, 1971) Further, the Workshop staff has continued to give attention to the potential teaching value of program features that the producer might think of as mere incidentals of plot and setting (Fowles, 1975). Thus, just as Salomon's work raises questions about the kinds of "media literacy" skills which may unintentionally be called upon and developed in child viewers, a parallel set of questions can be raised about the "unintented" effects which exposure to television advertisements has on children. In fact, the issues of deception, fairness, and even safety in children's commercials may all be considered questions of effects which were "unintended" by the sponsors and advertising agencies responsible for their creation

Studies of advertising A number of studies have examined children's visual *attention* to commercial messages with specific audio-visual features (Atkin, 1975b, Krugman, 1968; Rust and Watkins, 1975, Wartella and Ettema, 1974)

For example, the Wartella and Ettema study, described in chapter 1, indicated that children's attention increased with the auditory complexity of a commercial, regardless of its visual complexity On the basis of their findings, the authors suggested that variations in the auditory complexity of commercials have a greater effect on children's attentional behavior than variations in visual complexity. In another study cited in chapter 1, Duffy and Rossiter (1975) found an unexpected inverse relationship between children's observed visual attention to the commercials and their verbal recall of the brand names advertised. Although both studies relied upon visual measures of attention, their findings suggest the need to examine children's auditory attention as well.[10]

Rust and Watkins (1975) also measured children's visual attention to a series of commercials. A sample of 80 children, 6 to 9 years old, were given the choice of watching either the television screen or a simultaneous slide show (a "distractor"). By videotaping the children as they watched the two presentations, the researchers were able to determine what percentage of the sample chose to look at each commercial on a moment-to-moment basis. Their analysis indicated that the average attention level peaked during the moments characterized by the most physical action, while low attention occurred at the more static shots.[11] Rust and Watkins followed up the viewing with a group discussion in which information was obtained from the children about their recall of and attitudes toward the commercials. The methodology employed in this study offers an example of how response measures can be fully combined and applied in studying children's reactions to specific commercial messages.

Krugman's work (1968) is noteworthy as a final example of research on viewers' attentional responses to particular techniques and properties of television advertising. According to Krugman, a viewer's "direct response" to advertising should be measured not only by visual attention or looking behavior (using eye-movement recording), but by the thinking of the subject (i.e., thoughts which came spontaneously to mind while an ad is being viewed) and by the subject's feelings (i.e., changes in pupil-size as a measure of response intensity). Krugman's

[10] It is possible to make exact numerical measurements of children's listening responses to television program soundtracks (Friedlander and Weistone 1974)

[11] This is consistent with Levin and Anderson's (1976) finding that active movement in the *Sesame Street* material enhanced preschoolers' visual attention

specific research on these three processes deals with television and print advertisements intended for adult audiences, but the study raises some provocative questions for those studying children's responses to advertising. Krugman examined the manner in which his subjects looked at the ads that are easy to learn, as compared with ads that are difficult to learn. He analyzed the eye movements of the respondents as they were exposed to different ads for 10 seconds, and then interviewed them for their recall of the ads. He found that the ads which were scanned less were better recalled. On the basis of this evidence, it may be possible to conclude that there is a finite amount of information to be learned for each advertisment. If so, it should be possible to determine how many exposures are required to learn the information in a specific ad. This would be useful in that almost all of the research on children's learning and understanding of television advertising has been based upon their responses to a single exposure of the material being studied.[12]

The more policy relevant issues of how particular formats contribute to or detract from accurate perception and recall of commercial content have been addressed by a small but growing number of studies.

1. The question of whether a particular audio and/or visual feature is *perceived and remembered* by children is examined in a study which attempted to determine how two different techniques for presenting a product disclaimer affected children's awareness and recall of the disclosed information (Atkin, 1975b). A sample of 500 preschool and grade-school children were exposed to a Mattel "Vertibird" commercial in which either a video superimposed title or a video title supplemented by an audio voice-over was used to present a disclaimer of "batteries not included." When directly asked about what is not included when the toy is purchased, children exposed to the video-plus-audio version were more than twice as likely to mention "batteries" as those viewing the video-only version (43 percent versus 18 percent).[13] Further, in followup questioning, 75 percent of the children who viewed the audio-visual disclaimer reported having heard (as opposed to having seen) the statement. This suggests that hearing the information was more influential for these children than seeing it.[14]

Another study has examined the relationship between how a disclaimer is worded and comprehension (Liebert, Liebert, Sprafkin, and Rubinstein, 1976). Two toy commercials were shown to a group of 240 6 and 8 year olds in one of three versions: no disclaimer, a standard disclaimer ("some assembly required"), or a modified disclaimer ("you have to put it together"). The children who were exposed to the standard disclaimer demonstrated no better understanding that the toy had to be put together than those who saw the same commercial with no disclaimer. This held true for the older as well as the younger children. However, the children who heard the modified disclaimer showed significantly greater comprehension of its meaning. The authors conclude that this "seems to indicate that wording appropriate to young children plays a crucial part in their ability to understand the disclaimer content." While the results of these two studies are hardly surprising, they suggest that refinements of current code provisions on disclaimers are needed to ensure that they achieve their intended purpose.

2. There has been very little in-depth probing of the question of children's *interpretation* of product information or other commercial content as it is conveyed by means of specific audio-visual techniques or formats. A noteworthy effort in this direction, however, is a pilot study in which the researchers examined children's perceptions of the meaning of specific verbal slogans and product claims taken from a Christmas toy catalog (Burrall and Rossiter, 1975). The slogans and claims employed various rhetorical devices, such as questions ("Who could resist adorable Ginny?") or qualified superlatives ("the best of its kind"). A small sample of 2d and 4th grade girls with high verbal ability were shown pictures of the products, with a slogan or claim printed below each picture. Only one-third of the younger children and two-thirds of the older ones could accurately paraphrase the claim. In addition, very few of the children's interpretations of these statements included recognition of the linguistic device employed. Many children, for example, incorrectly

[12] A few studies have compared children's responses to single versus multiple exposures to a particular commercial (Goldberg and Gorn, 1974, Atkin, 1975b).

[13] The greater awareness and recall reported for the audio-visual form of disclaimer offers considerable support for the guideline in the NAB code which specifies that children's advertisements shall "provide simultaneous audio and visual disclosures when items such as batteries are not included."

[14] As noted previsously, the importantance of auditory factors in children's attention to and learning from television advertising deserved further study. See Schramm, 1972, Wartella and Ettema, 1974, Duffy and Rossiter, 1975.

inferred that "the best of its kind" meant "the best," instead of just "among the best." While this study deals with print-ad information (perceived visually), as opposed to television advertising (which is perceived auditorially as well as visually), the application of psycholinguistic analysis to the study of children's comprehension of verbal product claims suggests a productive area for future research.[15]

3. The *persuasiveness* of specific product claims in a particular audio and/or visual form has been investigated in a number of studies. In one study, 136 children, 2d, 7th and 8th graders, were exposed to four commercials which had come under the review of the FTC for their use of possibly deceptive product displays or "belief statements" (e.g., "Wonder Bread is the best thing your mother can give you to grow fast") (Haefner, Leckenby, and Goldman, 1975). Although comparisons between children's responses before and after viewing the commercials revealed *no* significant differences in their overall attitudes toward the advertised brands, the children showed increased acceptance of specific claims about the product (belief statements) contained in the commercials. Further, the younger children showed greater shifts in belief than the older children.

Another similar study was sponsored by the FTC to test whether children's exposure to a series of breakfast cereal commercials could have an adverse effect (Poulos, 1975). In one of the commercials, the advertised cereal was associated with wild-growing vegetation, in another, an adult is shown picking wild berries and other plants while mentioning that each is edible. In some of the ads, the berries were actually added to the bowl of cereal. The Commission was concerned with whether this advertising tended to lead children to pick and consume potentially harmful plants.

Four of these commercials were shown to a small sample of 5 to 11 year olds after they had been tested for their beliefs about the edibility of a variety of edible and nonedible plants shown to the children in colored photographs. The children were then tested again, and the ratings of edibility increased the most for the nonedible plants that most closely resembled those pictured in the commercials. Although, as the author points out, the research needs to be extended and replicated, "the results do suggest that the cereal commercials have the capacity to lead children to engage in behavior that increases the risk to their physical being."[16]

4. Finally, changes in children's behavior, whether undesirable or beneficial, may well be the most compelling evidence of learning that research can provide in studying the effects of commercials. It is also probably the most difficult to document, and very few studies have assessed the *behavioral effects* of particular audio-visual techniques or modes of presentation in children's commercials.

In an attempt to use behavior as an outcome,[17] Atkin (1975b) showed a large sample of preschool and grade-school children one or two versions of a commercial for a building block game. In one presentation, two children were shown constructing a tall elaborate structure with the blocks, in the other, a much more modest structure was depicted. The voice-over soundtracks accompanying these two visual presentations were also different. In the more elaborate format, for example, the viewer was encouraged to build "a sky-high tower so you can be the champion", the modest version told viewers "it's fun . . . anyone can play Blockhead."

Based on observer ratings of the children's behavior in block play following the viewing, Atkin reported that the children exposed to the "extravagant claim" presentation were more likely than those seeing the "modest claim" version to display hostile behavior, in the form of anger, verbal aggression, and/or physical aggression (28 percent versus 18 percent). The children were also asked about the expectations they had for their own performance with the game. Overall, those children exposed to the "extravagant claim" version were somewhat

[15] Further linguistic analysis of problematic verbal product claims can be found in a paper by Rossiter, *Cognitive Phenomena in Contemporary Advertising* (1975).

[16] In contrast to the Haefner et al. (1975) investigation of commercial messages, the messages studied by Poulos (that wild plants are edible) was not primary to the commercials. Rather, it was embedded, both visually and verbally, into the context of the primary message. For this reason, the Poulos study offers a good example of what was earlier noted as the potential (in this case, negative) teaching value of incidental messages from television material.

[17] This research is noteworthy in its use of multiple response measures. These include responses observed during viewing (e.g., visual attention, expressions of irritation and or enjoyment, verbalizations) and those obtained subsequent to viewing (e.g., brand name recall, desire for the advertised product).

more likely to estimate that they could build a higher tower than the actors on the commercial (64 percent versus 55 percent) Further analysis indicated that this greater expectation of personal performance occurred almost exclusively among the younger viewers (77 percent in the "extravagant" presentation versus 62 percent in the "modest").[18]

SUMMARY AND NEEDED RESEARCH

A limited amount of research has investigated the specific audio-visual properties of television advertising and their various effects on children. Several studies analyzed advertising content, documenting the incidence of particular techniques or features of commercials designed primarily for children. Production techniques and format features have been found to vary substantially according to product class—e.g., almost all toy commercials use a live-action format, whereas advertising for cereals relies heavily on animation. In a few cases, these analyses have also attempted to identify the prevalence of commercial practices which are specifically required (e.g , positive disclosures) or restricted (e.g., the use of special effects) by industry codes regulating advertising to children

It would be useful if future studies of this kind based their descriptive categories even more closely with current industry guidelines. In the case of positive disclosures, for example, both the incidence of such disclosures ("batteries not included," "items sold seperately") and their presentational forms (audio and/or video, length of time, placement) need to be documented. Such an analysis would help to inform both regulators and advertisers about the ways in which currently imposed guidelines are being followed. The usefulness of these content analyses is limited, however, especially in their absence of information about children's own perceptions of these television formats and techniques. Additional research is therefore necessary to investigate children's perceptions of particular audio-visual features of television advertising and the effects of these perceptions.

Because of the limited amount of research assessing children's responses to specific audio-visual features of commercial messages, we reviewed a number of studies that examined the effects of these features in instructional program material These studies of programing effects have potential applications for future advertising research, in terms of both their approach to problems (i.e . the questions raised and the methodologies used) and their substantive findings. With regard to findings, for example, the evidence of poorer learning by children when program content was presented in only one modality (either auditory or visual) supports similar findings from a study evaluating learning of product information from different format conditions in a commercial

Several studies have used a variety of response measures to investigate the effects of particular stimulus variables on children's attention to commercials or, in some studies, children's programs In one study, for example, an alternative visual "distractor" was provided to approximate a natural viewing situation. Using such methods, researchers have been able to measure changes in the level of children's visual attention as they are exposed to particular audio-visual features in the televised material. These attentional studies of programs and advertising material have documented the enhanced visual attention that results from such features as active movement, animation and lively music—all commonly used in advertising messages

In future studies, these measures of attention could be refined and expanded For example, eye-movement records would provide a more precise and informative measure of visual attention In addition, findings from several different studies have indicated the need to consider auditory as well as visual factors in children's attention to and learning of television content. Other responses which deserve more careful study include the intensity of response and arousal, verbal comments, expressions of emotion, and nonverbal behavior such as imitation

In research investigating children's learning from television advertising messages, their recall, comprehension, expressed beliefs or attitudes, and behavior subsequent to viewing specific commercials have all served as response measures Such studies have demonstrated that children's recall of product disclaimers is influenced by the form in which they are presented For example, a disclosure about batteries for a toy was recalled better when presented in both audio and video form, as opposed to video

[18] The use of "extravagant" toy product displays or demonstrations is specifically disallowed by the NAB's guidelines, which state that toy advertising shall neither exaggerate nor distort play value and shall seek "to limit any demonstration of a toy's performance to that which a child is reasonably capable of reproducing."

only, recall has also shown to be enhanced when the wording of a disclosure was simplified. A study of print-ad product claims revealed that children (especially younger ones) find it difficult to accurately interpret such common linguistic devices as qualified superlatives.

Other studies have found that the content of a commercial, whether it is central or incidental to the commercial's message, may bring about shifts in children's beliefs. Similarly, the behavior of children using an advertised product has been found to vary depending upon the way the product's performance is demonstrated in a commercial.

While the evidence from these studies is often preliminary, somewhat scattered, and still unreplicated, their findings verify (1) that specific audio-visual features of commercials can make significant differences in children's learning, and (2) that such effects on children's learning and behavior can be measured by research. Future research should further explore children's ability to accurately perceive and understand commercial information presented by means of specific copy, sound, and visual techniques. Investigators should attempt to determine, for example, whether there are specific presentational forms which are more likely to produce accurate recall and comprehension of such important information as the size and components of a product, the way a product works, and a realistic perception of its performance. This research should give special attention to the perceptions of younger children.

The *cumulative* impact of specific presentational forms in commercials also requires examination. For example, what are the effects on children of the repeated emphasis on action/performance/speed in toy products, or the repeated use of animation and fantasy in cereal commercials? What are the more long-term effects of commercial techniques and formats on children's perceptual and cognitive skills?

Chapter 3

SOURCE EFFECTS AND SELF-CONCEPT APPEALS IN CHILDREN'S TELEVISION ADVERTISING

Characters of various kinds—human and nonhuman, live-action or animated—appear as product presenters or product users in most children's commercials. Their association with the advertised product ranges from merely a coincidental presence in the commercial to open endorsements and testimonials. The term "source effect" refers to the impact of these characters on the television audience.

Critics of television advertising for children allege that the use of such characters in commercials creates source effects that take unfair advantage of the young viewer. The following listing defines a number of these alleged negative source effects.

1. Certain types of characters in commercials, notably program personalities and cartoon characters, may contribute to children's confusion between programs and advertisements. We have termed this the *confusion effect*. This confusion effect may be heightened when the program personalities and cartoon characters appear in commercials shown within or adjacent to their own programs. We call this the *adjacency effect*.

2. Celebrities or authority figures, such as a policeman, an astronaut, or a mother, can lead children to attribute to the endorsed product qualities it does not have. We call this the *endorsement effect*. The endorsement effect may be heightened when the celebrity or authority figure openly endorses or uses the product—the *direct endorsement effect*—and may be reduced when the celebrity or authority figure merely appears in the commercial without endorsing or using the product in the *indirect endorsement effect*. The endorsement effect may also be reduced or eliminated if the celebrity or authority figure does not appear in real life, but is either acted or animated. We call this the *fantasy effect*.

3. Certain characteristics of product presenters or users—notably their sex, race, occupation, or social behavior, can contribute to children learning social stereotypes. We call this the *social stereotype effect*.

4. Certain types of advertising appeals, usually but not always involving product presenters or users, may deleteriously affect a child's self-concept. We call this the *self-concept effect*.[1] Personal enhancement appeals, social status appeals, exaggerated or unrealistic product usage portrayals, and competitive product appeals fall into this broad category.

CURRENT CODES

This section reviews what current NAB and NAD self-regulatory codes allow and prohibit regarding source factors and self-concept appeals in television advertising directed at children.

1. *Confusion Effect*

The NAB does not specify any potential source effects in its code. The NAD does specifically refer to potential confusion between program content and advertising content. The NAB code, identical in effect to that of the NAD, states:

> No children's program personality or cartoon character shall be utilized to deliver commercial messages within or adjacent to the programs in which such a personality or cartoon character regularly appears. This provision shall also apply to lead-ins to commercials . . .

Note that the *adjacency effect* actually provides the basis for the NAB and NAD codes on program personalities and cartoon characters.

2. *Endorsement Effect*

The NAD code allows all types of endorsers but seems to prohibit the endorsement effect itself:

> Advertisement should not falsely imply that purchase and use of a product or service will confer upon the user the prestige, skills, or

[1] The relationship of source effects to self-concept effects might be expressed in terms of "who" presents the product versus "how" it is presented. Other presentation issues are discussed in chapter 2 of this report.

other special qualities of characters appearing in the commercial or ad. Material benefits attributed to the product or service should be inherent in the use thereof.

The NAB code, on the other hand, apparently tries to minimize the endorsement effect by placing restrictions on the type of endorser and the type of endorsement—apparently based on the assumption that some types of endorsers are more effective than others. The NAB's prohibitions[2] look simple but are, in fact, quite complicated. They are summarized in table 3-1.

3 *Social Stereotype Effect*

In its preamble, the NAB code recognizes that "advertising . . . can serve to inform children . . . of many aspects of the society and world in which they live." Social stereotypes are not explicitly mentioned. The code simply states that

> Advertisments shall not portray attitudes and practices inconsistent with generally recognized social values and customs.[3]

The NAD's guidelines, section C, provide a much more detailed listing of the criteria which social portrayals in commercials should meet. In addition to social stereotyping, the NAD prohibits unacceptable reflections of social, legal, moral, institutional, or family values, disdain for parents and other sources of child guidance, undesirable living habits and manners, and poor (other than informal) use of language.

4 *Self-concept Effect*

Various advertising practices may reflect negatively on a child's self-concept. Four of the most prevalent self-concept concerns are covered in the codes.

Personal enhancement appeals. Both the NAB and the NAD allow personal enhancement appeals—which promise such benefits as strength, growth,

Table 3-1

NAB Restrictions on Endorsements

	Human, real-life	Human, actor/actress portrayals	Animated
Celebrities (a famous person or character)	Indirect only*	Allowed**	Allowed
Authority figures (e.g., athlete, mother, astronaut, policeman)	Indirect only*	Allowed**	Allowed
Product characters (identified with or "created for" the product)	Not Allowed	Not Allowed	Allowed
All others	Allowed	Allowed	Allowed

*"Indirect" means that this type of endorser can appear in commercials but must not verbally endorse the product nor be shown using or consuming it. This relates to the *direct endorsement effect* issue already referred to. The fact that animated characters are allowed in all cases and actor/actress portrayals in some, relates to the *fantasy effect* issue.

[2] Children's TV Advertising, sections I.J and I.K; also Questions and Answers, January 1, 1975.

[3] Two other specific social factors are mentioned. NAB prohibits use of "realistic war atmosphere" in children's commercials and also portrayals which "suggest or recommend indiscriminate and or immoderate use" of products such as snacks, candy, gum, and soft drinks.

physical proficiency, and intelligence—provided they are "constructively handled" and "accurately reflect documented evidence" (to use the NAB's words) and "do not mislead" (to quote the NAD guidelines)

Social status appeals Social status appeals, usually peer status appeals, are prohibited by both the NAB and the NAD The NAB code states that

> Appeals shall not be used which directly or by implication contend that if children have a product they are better than their peers or lacking it will not be accepted by their peers

The NAD's provision is similarly worded and identical in effect

Product usage portrayals Product usage portrayals might presumably affect a child's self-concept if the child cannot duplicate the portrayal The NAB and the NAD have similar codes covering usage portrayals except that the NAB refers to toys and premium offers whereas the NAD refers to all products advertised to children Both codes prohibit exaggerated portrayals of play value or performance characteristics, usage demonstrations which a "a child" (NAB) or an "average child" (NAD) is not reasonably capable of reproducing, settings and contexts which a child cannot reasonably reproduce, and portrayals of children possessing unfair or inequitable numbers of products or premiums

Competitive product appeals The NAB code is clearly against competitive product appeals, allegedly because of a potential self-concept effect The code prohibits both overt competitive appeals (comparison advertising) and covert competitive appeals (superiority claims)

> Positive exposition of a product's own attributes are acceptable (sic) However, because of their potential to encourage dissatisfaction on a child's part, competitive comparison superiority claims or techniques are disallowed

The NAD also discourages competitive appeals but allows them in cases where a "true and significant advantage may exist that can be readily understood by children" Such claims should be nondemeaning to competitors' products, should not involve comparisons with previous versions of the same product, must be adequately documented, and must not be based on a biased selection of comparative attributes Additionally, the NAD appears to prohibit subjective superiority claims or "puffery"

INCIDENCE

Incidence refers to the prevalence of commercial practices relating to *potential* source effects and self-concept appeals, not to the incidence of effects per se However, to maintain continuity, the headings in this section retain the word "effect" when, more correctly, they should be "potential for effect"

1. *Confusion Effect*

Content analyses by Barcus are very helpful in that they provide evidence on program personality and cartoon endorsements as well as incidence estimates on the adjacency phenomenon *Adjacent* endorsements (either within or contiguous to the endorser's regular program) were negligible at the most recent count in early 1975 none on weekend mornings and 1 percent during weekday afternoons *Nonadjacent* endorsements were recorded at an incidence of about 6 percent (7 percent on weekends, and 5 percent on weekdays) However, this figure probably overestimated the use of program personalities and cartoon characters since "endorsers" in the Barcus analyses included celebrities (specifically "sports figures" and "figures in the news"). Even so, the incidence of nonadjacent endorsements by program personalities and cartoon characters seems quite low considering that this is a permissible practice.

2. *Endorsement Effect*

The endorsement effect relates to the type of endorsers and the type of endorsement that each is permitted to make Again, Barcus provides the most recent incidence data, except that his content categories do not correspond to those specified by the NAB code An analysis of 1971 commercial content by Winick et al. (1973) is of some help in that practices which are not affected by code changes can be roughly estimated from this earlier study From

these estimated breakdowns, we can draw a number of tentative conclusions about endorsement

- Probably 80 percent of children's commercials employ an *on-camera presenter*.[4] In other words, only about 20 percent portray no visible source, although, of course, auditory cues are usually present
- The most frequent visible product presenters in commercials directed to children are *animated characters* (42 percent), followed by *anonymous human* adult or child actors and actresses (32 percent). Cartoon program characters selling products in commercials that are *not* adjacent to their own programs account for the next largest frequency (4 percent)
- There is a 2 percent incidence of *real-life celebrity* endorsements, even though this practice is now prohibited by the NAB code. Apparently, not all advertisers are observing this prohibition.[5]
- Virtually all children's commercials would qualify as *direct endorsements* under the NAB's definition. Besides direct testimonials (an estimated 20 percent), there are on-camera usage/consumption portrayals (an estimated 60 percent) plus off-camera verbal statements where only the product is shown (an estimated 20 percent).[6] Although these are all different degrees of endorsement, they are all direct endorsements under the NAB code.[7]

3. *Social Stereotype Effect*

The potential for social stereotype effects lies in the presence of various social cues in commercials seen by children. The following figures are based on commercials shown for the most part during programs designed for children on weekday afternoons and weekend mornings. No data are available that reflect the incidence of social cues in other commercials that children may see.

Age of product presenters. The following table is based on a simple average of Barcus' weekday afternoon and weekday morning content analysis, in early 1975.

Table 3-2

	Spokespersons	Other characters
Adults	on-camera 62%	32%
	off-camera 15%	
Teenagers*	16%	6%
Children	7%	55%

*For some reason Barcus coded animals in this category as well. Thus, this figure represents "all others besides adults and children."

If we focus only on visible age cues, and ignore the teenage incidence, it may be concluded that children, overall, see about *one and a half times as many* adults as children in commercials directed at them. However, they see about *nine times as many* adults as children acting as spokespersons or endorsers.

Sex of product presenters. Again this table is based on an average of figures in Barcus (1975a, b).

Table 3-3

	Spokespersons	Other characters
Male	90%	67%
Female	10%	33%

Overall, children see at least *three times as many* males as females in commercials directed at them. For spokespersons or endorsers, the ratio is *nine times as many* males as females. Some interesting results on sex cues come from a content analysis of 1974 children's Saturday morning commercials by

[4] Readers who check Barcus (1975a, b) will find a very high incidence (about 41 percent) of off-stage *announcers*. However this does not preclude the additional presence of an on-camera presenter. The 80 percent figure is estimated from the older Winick et al. (1973) data but is likely to be currently applicable since there have been no code changes affecting the practice.

[5] An article in *Advertising Age* (September 13, 1976, (postdating the September 1, 1976 NAB ban) reports that Scraper Manufacturing Co. and the Muller Jordan Herrick advertising agency will be using Alex Karras—a celebrity and, as an athlete probably also an authority figure by NAB definitions—to promote its "Super Jocks" line of children's action toys on children's shows, sports programs, and prime time network shows.

[6] Estimated from figures provided by Winick et al. (1973), collected in 1971; these may be somewhat inaccurate but are the nearest available estimates.

[7] In addition to sections I.J and I.K of the NAB's Children's TV Advertising Code of September 1, 1976, see NAB's "Questions and Answers" in *Code News*, January 1, 1975.

McArthur and Eisen (n d). Including only commercials in which human males or females appeared as central characters, these investigators found, predictably, that males were portrayed mainly in authority roles whereas females were portrayed primarily as "passive" product users However, although many more males than females were shown (80 percent vs 20 percent), both sexes appeared equally as "reward-givers" and "reward-getters " As McArthur and Eisen commented, advertising may be the one media area in which women are frequ ntly rewarded for their actions—even though the rewards are usually within the context of stereotyped "housewife" or "mother" roles

Race of product presenters Although there are no data available for the period, it is likely that, prior to the late 1960's children's commercials were almost exclusively populated by white characters—human or animated Although the figures may vary in reliability, it is interesting to note the trend of racial characteristics in children's commercials since then

Table 3-4

Study	Data collected	Percent of commercials* in which nonwhites appeared
Barous (1971)	1971	27%
Winick et al. (1973)	1971	24%
Atkin & Heald (in press)	1972	18%
Atkin & Heald (in press)	1973	24%
Doolittle & Pepper (1975)	1974	17%

*Most of the studies focused on Saturday morning commercials

In the most recent content analyses (Barcus 1975a, b), with 1975 data, a much lower nonwhite incidence was obtained

Table 3-5

	Weekend mornings	Weekday afternoons
Whites	95%	92%
Blacks	5%	7%
Other	∠0.5	∠0 5

The explanation for Barcus lower figures is that his 1975 figures are based on the percentage of total *characters* rather than on a percentage of total commercials While nonwhite characters appear in about 20 percent of children's commercials, they appear *alone* in only about 2 percent (Atkin & Heald, in press) Typically, the practice is to add nonwhite characters to depict an "integrated" racial setting Atkin and Heald's statistics of 1972-73 document this phenomenon

Table 3-6

Data collected	Average no. of characters in all-white commercials	Average no. of characters in commercials which contain nonwhites
1972	3 15	4 91
1973	2 70	5 33

Occupation of product presenters Recent specific data on occupations depicted in children's commercials are not available In a study using 1971 data, Winick et al (1973) reported that occupational cues were detectable in 38 percent of children's Saturday morning commercials and that a diversity of blue collar and white collar occupations was portrayed Occupations shown in children's commercials are most often discussed in the context of sex cues—notably the roles played by women Available content analyses indicate that just as women are underrepresented in children's commercials, their occupational roles are also underrepresented in the media in general, women are most often portrayed in domestic roles (Busby, 1975), although this is diminishing according to an investigation by the National Advertising Review Board (*Advertising Age*, April 21, 1975) Children's commercials almost exclusively portray women in a single role, "housewife," versus 17 occupational roles shown for men (Busby, 1975, Verna, 1974) This finding may be misleading, however The label might just as often be "mother," a role we might expect to be dominant in commercials directed at children

Social behavior of product presenters According to the Barcus studies commercials shown during weekend mornings and weekday afternoons displayed a variety of settings for exhibiting social

behavior in or around the home (30 percent), outdoor settings (29 percent), public places (15 percent), and places of work (4 percent).[8] However, no analysis has yet attempted to evaluate whether behavior depicted in children's commercials is in accord with "recognized" or "accepted" social values and customs, as required by the NAB and NAD codes.

4 *Self-concept Effect*

Four types of claims were identified earlier as having a potential bearing on children's self-concepts. Barcus (1975a, b) again provides the most recent and specific incidence figures.

Personal enhancement appeals. Table 3-7 uses Barcus' coding categories—three of which relate quite closely to personal enhancement claims by advertisers.

Table 3-7

	Incidence
Fun/Happiness	7%
Fun taste, fun to eat, lots of laughs, cup of happiness	
Health/Nutrition/Well-being	13%
Low fat good for you, balanced breakfast, look thinner	
Action/Strength/Speed/Power	6%
(no defining examples)	
Adventure	1%
An adventure in every bite	
Total	27%

In all, approximately one in four children's commercials carries at least an implicit promise of personal enhancement or benefit from product consumption or use. It should be noted that *documented* claims of this type are allowed by industry codes.

[8] These figures are averaged from Barcus (1975a, b). All figures of Barcus' two reports are uniformly rounded to the nearest whole number percentage.

Social status appeals. Barcus comes closest to measuring the incidence of social status appeals with his Peer Status/Popularity code. The averaged incidence for this type of claim was 2 percent. A 1975 example would be the commercial in which a young girl, upon procuring a brand of fried chicken, is allowed into a boys' play club. This practice is prohibited by the NAB and NAD codes.

Product usage portrayals. No data are available on the extent to which children's commercials exaggerate product ownership, product performance, or play settings beyond a degree reproducible by the "average" child.

Competitive product appeals. Overt comparisons between competing brands or models of a product—"comparative advertising" in adult commercial terminology—are apparently negligible in children's commercials. Barcus' nearest category is entitled Comparative/Associative but this appears to refer to similes and metaphors (e.g., "tasts as good as gold"). In any case, the incidence for this category was only 1 percent.

Covert comparisons—superiority or uniqueness claims—were more prevalent. Uniqueness claims (e.g., "the one and only . . .") were recorded at 4 percent. Superiority claims, which almost exclusively involved subjective superlatives or "puffery" (e.g., the greatest, best, fantastic) rather than objective competitive claims (e.g., best selling) were recorded at 7 percent. Thus, the estimated total for this practice, which is prohibited by the NAB, is 11 percent.

RESEARCH EVIDENCE

1 *Confusion Effect*

This effect alleges that the use of program personalities and cartoon characters in commercials contributes to children's confusion between program and advertising content.[9] Even by 5 or 6 years of age, approximately 25 percent of all child viewers still experience difficulty in separating programs from commercials (see chapter 1 of this report).

[9] For example, a recent consent order by the FTC against Hudson Pharmaceutical Corporation alleges that commercials which use "Spider Man," a character who appears as "Spiderman" on The Electric Company children's program, "has the tendency and capacity to blur for children the distinction between program content and advertising." (Federal Trade Commission Consent Order File No. 762 3054.)

Does the use of program characters contribute to this discrimination difficulty? Only one published study has examined this question (Atkin, 1975b) The study also attempted to test the *adjacency effect*, which hypothesizes that the confusion effect can be reduced or eliminated if the program characters are used "outside" rather than within or adjacent to their own programs The NAB and NAD codes are based on the adjacency hypothesis.

Atkin's study used three test conditions One group of children saw a commercial for "Pebbles" cereal, featuring the Flintstones cartoon program, we call this the "adjacency group." A second group saw the same commercial and the same cartoon program but in a noncontiguous sequence--this is the "nonadjacency group" A third group saw the Flintstones commercial during a Bugs Bunny cartoon program, we call this the "control group"

"Confusion" was measured by asking the children whether they remembered seeing the Flintstones characters eating cereal and, if so, where (The characters ate cereal only in the commercial, not the cartoon program.) Evidence for the confusion effect was obtained in that one-fourth of the children who *recalled* the Flintstones characters eating cereal thought they did so in the program. This error was most prevalent among the younger children in the sample (3- to 7-year-olds) However, the *overall* magnitude of the findings was diminished somewhat by the fact that significantly fewer children in the Flintstones program groups (compared to the control group) recalled the cereal-eating event in the first place Since we have no measure of "spontaneous" confusion, we have to rely on "recalled" confusion (i e , the percentage recalling the event multiplied by the percentage confused) By this *weighted* measure, the confusion effect results are equivocal since the confusion trends are offset by lower recall of the confusion

Atkin's study also did not support the *adjacency effect* hypothesis In fact, the "*non*adjacency group" experienced slightly *more* confusion than the "adjacency group" In sum, Atkin's comparison group produced equivocal results for the confusion effect and at the same time no support for the adjacency effect.

There were other findings in the Atkin study which suggested consequences other than the confusion effect For example, children in the Flintstones program groups paid slightly more attention to the Flintstones commercial than those in the control group, they also tended to want the advertised cereal significantly more often These results, incidently, were stronger in the *non*adjacency group. This casts further doubt on the implicit NAB/NAD hypothesis that nonadjacent commercials of this type are less efficacious than adjacent or in-program commercials

A 1975 study by Donohue should also be mentioned In a survey sample of 162 6- to 9-year-old black children of low socioeconomic status in New Orleans, Donohue found that 27 percent of boys and 42 percent of girls claimed that "their favorite TV character" appears in commercials The two favorite characters in commercials were Bugs Bunny and Fred Flintstone. However, these figures are likely to be overestimates in that they do not measure the proportion of commercials in which the characters appeared (the children may have been reporting about relatively few commercials), they are self-reports and thus depend on the reliability of children's memories, and the sample's and the region's viewing content may be somewhat atypical in terms of NAB code-covered stations. The Barcus figures should be taken as more accurate

2 *Endorsement Effect*

The endorsement issue involves not one but three alleged effects the direct endorsement effect, the indirect endorsement effect, and the fantasy effect.

Direct endorsement effect The allegation here is that certain types of product presenters can lead children to attribute to the endorsed product qualities it does not have The recent FTC consent order against "Spider-Man" Vitamins, for instance, states that "The use of such a hero figure . has the tendency and capacity to lead significant numbers of children to believe that the endorsed product has qualities and characteristics it does not have" (Federal Trade Commission Consent Order File No. 762 3054)

Endorsements by real-life celebrities and authority figures are prohibited by the NAB for commercials appearing in children's programs [10] Ironically, the single published study dealing with this phenomenon (Atkin, 1975b) seems to suggest

[10] "Other than the 'mere appearance' possibility see table 3-1

that real-life celebrities and authority figures do not produce an endorsement effect. In this study, an astronaut character was used as a "hero figure" endorser[11] and compared with a "man in the street" endorser. Atkin's summary of the study implies that the astronaut figure was slightly *less* effective in inducing children's desire for the cookies advertised. However, careful reading of the study shows that the endorsement effect depended on whether or not the children liked astronauts. When subgroup analyses were conducted the following results were revealed:

Table 3-8

	Desire for the advertised product
Experimental group:	
Children who liked astronauts "pretty much" or "very much" (60 percent of group)	32%
Children who liked astronauts "not so much" (40% of group)	22%
Control group:	
"Man in street" version	29%

The results indicate a *negative* endorsement effect among a substantial subgroup of children and no significant positive endorsement effect among the remainder.

Of course, this is only one study. The commercial may have been atypical of endorsement commercials. There is little doubt that endorsement effects exist. However, little is known about the source characteristics and processes that produce them. Nor have effects or outcomes other than "product liking" been studied. Proposals for obtaining this information are considered in the Needed Research section of this chapter.

Indirect endorsement effect. The NAB code does not prevent real-life celebrities or authority figures from appearing in commercials directed to children, although the code does prevent these figures from verbally endorsing the product and from being shown using or consuming it. The question is: are passive (indirect) forms of endorsement any less effective than direct endorsements and outright testimonials? Since there are no studies available that compare different degrees of "directness" of endorsement, we can only compare across studies.

In a pilot study using print ads, Hyams, Tanner, and Rossiter (1975) found that a black athlete endorser—an authority figure by NAB definition—produced a markedly greater liking for the endorsed product—a fictitious brand of soda—than either a black businessman endorser or a white businessman endorser. The black athlete advertisement used no direct endorsement whatsoever—only a picture of the athlete juxtaposed with a picture of the product. The endorsement effect, incidentally, was stronger among the *older* children in the sample (5th graders) than the younger children (2d graders). Dramatic source effects have been obtained in other studies with an equally indirect product-endorser relationship.

Perhaps the most straightforward illustration of the indirect endorsement effect comes from a pilot study by Iskoe (1976). In this study, Iskoe picked five pairs of similar products and randomly assigned five endorsers to them. Four of the endorsers were celebrities and some were also authority figures as defined by the NAB. The fifth was an "ordinary male." Independent ratings of children's product preference were made first. An endorser was then "attached" to each product and the products rerated. The data in the following table are paired comparison preferences in which the children were required to select one item from each pair. The sample comprised 225 children across 1st, 3d, and 5th grades, with both sexes and also race representatively included.

Several conclusions are apparent from this study. First, silent endorsement clearly works: Increases in product preference of up to 67 percent were obtained purely on the basis of a product-endorser juxtaposition. Second, although interaction effects are likely between various endorsers and products, not all endorsers are equally effective. Mohammed Ali seems much more effective than, for example, Lucille Ball, who as "Lucy" actually produced a negative effect in one instance. On the other hand, the "Ordinary male" endorser was just as effective as the average of the celebrities (22.5 percent vs. 19.6 percent). This reinforces the point made in connection with Atkin's "astronaut study" earlier, that endorsement effects depend on how children regard the endorser.

[11] The endorser, who was identified as "Astronaut Alan Collins," was presumably a celebrity *and* an authority figure since "astronaut" is one of the roles cited by the NAB as exemplifying ...rity figure in children's advertising, see table 1.

Table 3-9

Endorser and product pair	Unendorsed preference	Endorsed preference	Difference*
Mohammed Ali			
Frisbee	36%	60%	+67%
Beachball	64%	75%	+17%
President Ford			
Cookies	56%	68%	+21%
Donuts	44%	57%	+30%
Captain Kangaroo			
Gloves	49%	55%	+11%
Ski cap	51%	59%	+16%
Lucille Ball			
Doll	45%	45%	0%
Gun	55%	52%	-5%
Ordinary male			
Potato chips	55%	67%	+22%
Pretzels	45%	56%	+23%

*Difference = (Endorsed Pref - Unendorsed Pref - 100)%

In sum, although no research has been done which actually compares direct with indirect endorsements, separate studies show that both can produce significant effects. It is not known whether the NAB's prohibition of direct endorsement (testimonials or overt use/consumption) reduces endorsement effects by celebrities or authority figures, but it certainly does not remove these effects.

Fantasy effect Implied in the NAB code is a second means of reducing or eliminating the endorsement effect—the fantasy effect Animated characters are universally allowed as presenters; they may portray celebrities or suthority figures, and may serve as specially created "product characters." Also in keeping with the fantasy idea, actors and actresses are allowed to portray celebrities and authority figures so long as their portrayals are recognizable by children as "slice of life." (Presumably this means that children see acted portrayals as being of a fantasized nature.) The NAD code does not contain any fantasy effect assumption; the NAB's current code, however, virtually *depends* on it.

No published studies exist which specifically test the fantasy effect The Flintstones study (Atkin, 1975a) employed animated cartoon characters and other studies (e.g., Hyams et al , 1975; Robertson et al., 1975) have used actors and actresses to portray authority figures. But none of these studies has compared the effectiveness of fantasy portrayals vs real-life endorsers. Therefore, we shall devote considerable attention to suggested future research on the fantasy effect in the Needed Research section of this chapter.

3. *Social Stereotype Effect.*

The development of socially stereotyped perceptions in children is undoubtedly a long, cumulative process. The incidence figures for social cues associated with characters in children's commercials dealt primarily with *ratios.* young-old, male-female, or black-white. In the general context of television viewing, it has been shown that ratios of violence and the social characteristics of aggressors and victims can affect adult viewers' perceptions of society (Gerbner and Gross, 1975). We might expect similar effects from commercials, although it would be difficult to separate them from the effects of television programing as a whole.

We might nevertheless ask whether the social characteristics of commercials produced any short-term effects regardless of any long-term consequences. In particular, by using certain characters as presenters or product users, commercials may take advantage of *existing* social stereotypes to produce

endorsement effects, i e , to imbue the product with qualities or characteristics it would not otherwise have Thus, children may find models in commercials credible, attractive, or persuasive solely on the basis of their social characteristics, quite apart from any celebrity, authority, or other special status characteristics they may possess There is considerable evidence that this type of "social endorsement" effect exists We will examine this evidence in terms of the most salient social cues among characters in children's commercials age, sex, race, occupation, and social behavior

Age cues Most of the concern about age cues has centered on the issue of adult vs child presenters This issue may look like an authority figure phenomenon but, as seen in table 1, only particular adult roles are seen as authoritative by the NAB Thus there is a separate adult vs child issue [12]

The overwhelming usage of adult presenters suggests that adults are more effective presenters than children But there is a qualification A study by Robertson, Rossiter, and Brenner (1975) utilized a child endorser, a parent endorser, and a parent plus-child endorsement Based on ratings of affect (liking) toward the endorsed product, the endorsement effects were exactly in that order most effective was the parent-plus-child endorsement. The difference between the child endorser and parent-plus-child endorsements was significant at the 05 level, with younger children (7- to 9-year-olds) somewhat more influenced by the parental inclusions than older (10- to 12-year-old) children. The Robertson et al study was conducted with a mixed-race, mixed-sex sample The finding of parent-child superiority was replicated in a followup study by Gardner (1975) with an all-white, mixed-sex sample—with results significant at the 01 level In sum, the studies indicate that adults are more effective than children as presenters—especially if they are shown *with* children as a joint endorsement

Sex cues The endorsement effect question in relation to sex cues is whether males or females are more effective presenters of products in children's advertising Empirical research on sex cues has typically employed child rather than adult models, although children are atypical as presenters (see table 3-2 and 3-3)

The single study that has employed adult models in research on sex roles in children's television advertising was conducted in the Atkin series (1975c). In this study Atkin was interested in the auditory sex cues provided by off-camera announcers.[13] Interestingly, only 47 percent of the children in the Atkin study correctly recalled that a woman's voice had been used in the version of the commercial using a female announcer. recall did not differ by sex of viewer Older children were much more often correct than younger children, perhaps reflecting increasing sex-role awareness Overall, use of a female announcer made no difference as to recall of the commercial, belief in the advertised claim, or desire to use the product. By subgroups, boys were somewhat more influenced by the female announcer, as were older children However, there was no difference in response between the children who recalled a female voice and those who did not recall the announcer's sex correctly

The apparent implications of this study are either that the sex of an off-camera announcer makes no difference—or that a female announcer is sufficiently novel to make her just as effective as a male announcer But there is a third possibility Atkin used a Bufferin commercial which was probably fairly familiar to the children Recall of the commercial, belief in the claim "Bufferin works faster than plain aspirin," and desire to take the product may well have been established *prior* to the test. Thus the experiment may imply nothing more about sex cues than that boys and girls are equally likely to hear them

[12]Interestingly enough the NAB is concerned about the role of children in adult commercials NAB apparently feels that dominant use of children in commercials ostensibly intended for adults may redefine the actual target of the commercials as being intended for children In advertising of any product designed for and directed to adults a commercial is exempt from the provisions of the Children's TV Advertising Guidelines even if it is shown during or adjacent to children's programing and if

> Any use of a child is limited to a real-life situation and, if the child is used as other than incidental, background character such use is confined to a situation in which the parent adult-child relationship is established and the parent adult remains the dominant character

> Children's TV Advertising Section III 2

[13]Barcus (1975a, b) found that an average of 41 percent of children's commercials use an off stage voice although our estimates are that only 20 percent use solely an off stage voice with no on stage presenter

A similar drawback occurred in a second study by Atkin (1975c), which used boy and girl models endorsing an established product—a Tyco race car set. Only 41 percent of the children in the girl endorser version recalled the model's[14] sex accurately; again this did not differ by sex of viewer. Female endorser effects were found *only* among those children who had perceived the female endorsement. This subgroup was much more likely than the "nonperceiver" subgroup to approve of girls playing with race car sets. However, their own desire for the toy was only minimally affected, with boys wanting it much more than girls regardless of the commercial manipulation.

Less equivocal sex cue results were obtained in the Robertson et al. study (1975) and the Gardner (1975) replication. The products, fictitious brands of cereal, were unknown to the children, so previously established attitudes were not a confounding factor. Across the total sample there were no significant sex cue effects. However, subgroup analyses provided a different picture. In both studies, older boys were more influenced by male endorsers (n.s. at 1st grade, .05 at 3d and .01 at 5th). Girls showed a similar trend in response to female endorsers, but this trend did not reach statistical significance, i.e., male models were equally effective with girls. Two qualifications should be added to these results. A pilot study by Sobel and Rossiter (1975) did show a marked "own sex" trend for girls.[15] The study also included a third sex cue condition, boy-plus-girl endorsement. This turned out to be equally as effective as male-only endorsement with older boys but not at all appealing to girls.

Taken as a whole, these studies suggest that sex cue endorsement can be effective in changing children's liking for products—quite apart from any intrinsic characteristics the product may possess—although the magnitude of the effect depends on prior sex-typing of the product. Sex cue endorsement seems to be more effective with *older* children, probably because of preexisting sex-role awareness. Finally, findings lean toward an "own sex" effect in general, but the evidence is not conclusive on this point.

Race cues. The evidence on endorsement effects due to racial characteristics of product endorsers is complicated. Four published studies have tested the effects of black and white endorsers with black and white child samples.[16] All show a tendency for awareness of racial cues to increase with age; young children seem little affected by racial differences.

The complication in the race cue studies lies with older (10- to 12-year-old) children. Robertson et al. (1975) found a tendency for children of this age to be influenced by an "own race" effect although this trend was not statistically significant. Gardner (1975), using a white sample only, also found no significant "own race" endorsement effect. However, Hyams, Tanner, and Rossiter (1975) found very strong "own race" effects for older children, particularly black children,[17] and Atkin (1975b) found an apparently significant "*cross*-race" effect for older black children, but no effect for older white children.

What should be concluded from these studies? First, it is clear that race cue endorsement effects—again independent of the product's own characteristics—can occur. Second, whether these effects occur depends critically on the prior socialization of the child. Older children seem more liable to be affected by racial cues in commercials, but *how* they are affected almost undoubtedly depends on their own socialization experiences with regard to race. It is noteworthy, for example, that the studies cited here drew their samples from schools with quite different interracial histories, which may account for their discrepant findings.

Occupational cues. As noted, occupational cues are probably present in about 40 percent of commercials intended for children. Evidence on long-term stereotyping effects attributable to commercials is almost impossible to obtain, but in the short term, occupational cues undoubtedly have authoritative or status oriented dimensions which make them a special subcategory of endorsement effects. Note the earlier reference to the study by Hyams et al. (1975) which demonstrated that the occupation of "athlete"

[14] Actually models' sex. Atkin used two boys and two girls in each commercial to minimize idiosyncratic cues.

[15] The term "marked trend" is used because these data were not tested for statistical significance. The magnitude of the effect, however, was greater than the significant differences in the Robertson et al. and Gardner studies.

[16] One of these studies was not sufficiently well controlled to be assessed.

[17] This was the only study to include an integrated setting. Older children of both races in this sample preferred this setting least although their response to a "cross-sex" setting was only slightly less negative.

in an endorser role is more effective with children than the occupation of businessman

However, the principal controversy surrounding occupational cues in commercials involves their interaction with sex cues Most often the controversy centers on the occupational stereotyping of women Content analysts imply that women in commercials are often stereotyped as "housewives"—although as we already commented, the women might also be designated as "mothers." In either case, the occupations portrayed by women are clearly limited

Although the development of social stereotypes is presumably a long process, a very interesting experiment by Atkin (1975c) suggests that certain stereotypes of women's occupations may be reversed, at least temporarily, in a single trial. In this experiment, Atkin prepared three versions of a commercial in which a 35-year-old woman was shown discussing the occupation-related advantages of eyeglasses. In one version, the woman portrayed the role of a judge, in another, the role of a computer programer, and in the third, the role of a television technician repairing a TV set Separate groups of children saw each version, and a fourth group, which did not see the commercial, served as a control The dependent effects measure consisted of a checklist of occupations suitable for women in which the roles of judge, computer programer, and TV technician were included Results were as follows

Table 3-10

Occupation	Percent of children who checked this occupation as suitable for women	
	Control group	Experimental group
Computer programer	54%	62%
Judge	27%	51%*
TV technician	26%	36%

*Significant difference ($p < .05$)

The most dramatic result was the percentage of children accepting the role of judge as suitable for women after seeing a woman portray the role in the commercial. The remaining results, although not statistically significant, indicated that the other two commercials had a similar effect of reversing the stereotype. Their smaller impact may have been due, respectively, to less stereotyping of the computer programer occupation and to the possibility that TV repair is seen as a low status job for persons of either sex.

The most intriguing result of this experiment was the apparent strength of a single "learning trial" in the face of considerable previous learning. The change effects, incidently, were stronger among the older and presumably more role-socialized children A delayed followup measure of occupational suitability would have been an interesting addition to the experiment

It is tempting to conclude from the counter-stereotyping effects in the Atkin experiment that commercials must also produce stereotyping effects, but such a conclusion is not *logically* warranted However, single commercials are clearly capable of affecting children's short-term social beliefs. This is an unusual finding given that such effects were popularly supposed to result only from multiple exposures.

Social behavior The final subcategory of social stereotype effects concerns social behavior which according to the NAB code must not be portrayed as being "inconsistent with recognized social values and customs." Some types of behavior, such as violence, would be almost universally regarded as antisocial, but the classification of living habits, manners, or language is distinctly more subjective. It is not surprising, then, that no one has attempted to define the stimulus characteristics needed for an effects study on the more general forms of social behavior seen in commercials.

We might ask, however, whether the phenomenon of learning social behavior from commercials is demonstrable Atkin (1975b) has shown that it is In this experiment, a group of children who saw an antilittering commercial exhibited significantly less littering behavior than a group who had not seen it. However, in Atkin's commercial, a public service announcement, the focus was on littering, whereas the sort of behavioral effects that the NAB and NAD are concerned about would presumably be of a more incidental nature Behavioral modeling of incidental content in children's commercials has been demonstrated in another context [18] However, no studies are available on children's incidental learning of routine social behaviors from commercials.

[18] See safety considerations reviewed in chapter 8 of this report

4. *Self-concept Effects*

The four types of endorsements most likely to affect a child's self-concept have already been identified personal enhancement appeals, social status appeals, product usage portrayals, and competitive product appeals. This section will review the available evidence on the effects of each

Personal enhancement appeals Some 27 percent of children's commercials employ appeals oriented toward personal enhancement—ranging from temporary effects such as fun and adventure, to more permanent personal states such as strength, health, or well-being (see table 3-7). Many products actually deliver such benefits, of course The main concern of critics and regulators is not so much with these claims per se as with their documentation or proof.[19] Usually such documentation requires survey evidence demonstrating that the claimed benefit is experienced or attested to by a large majority of children. This type of survey has not appeared in the academic literature on the subject, but there is little doubt that there are proprietary commercial surveys which document various personal enhancement effects

There is one academic study which *indirectly* bears on the question of personal enhancement outcomes. The study measured children's reported satisfaction with Christmas presents, many of which were products advertised on television (Robertson and Rossiter, 1975). In 90 percent of the cases, this sample of 253 children expressed satisfaction with the products (58 percent of the presents were rated better than expected). Younger children (1st graders) experienced slightly less satisfaction (84 percent). Dissatisfaction among heavy TV viewers was 24 percent versus only 8 percent among light TV viewers. However, it is not clear that personal enhancement appeals were responsible for all of this effect. Even if we make the rough assumption that 16 percent[20] of this dissatisfaction was due to television advertised products, an alternative explanation is that young children are not experienced judges of product portrayals, whether or not any personal benefits are implied by the commercials

In sum, children undoubtedly encounter many personal enhancement claims in commercials, and many of these claims are undoubtedly effective (as well as valid). No direct nonproprietary data are available on the incidence or magnitude of these effects or on the failure of the claimed effects

Social status appeals Children's commercials which imply that ownership of a product will lead to increased social status, or that lack of the product will have the opposite effect, are prohibited by the NAB and the NAD While the incidence of these types of appeals are currently at a very low 2 percent, they nevertheless exist Consequently, we may raise the issue of whether social status appeals are effective with children

An experiment by Shaak, Annes, and Rossiter (1975) tested the effectiveness of a commercial with a social status theme. A storyboard commercial for a fictitious brand of cookies was shown to a group of 2d and 5th graders The final frame of the three-frame storyboard depicted two different endings In one version, a child is shown winning new friends by dispensing the cookies, in the control group version, the child retains only his previous friends. This simple manipulation produced an increase in affect or rated liking toward the cookies of 42 percent (significant at the 001 level). the "peer reinforcement" effect was much stronger for the 5th graders ($p < .05$) than for 2d graders (n.s., though directionally consistent)—indicating once again that code regulated advertising practices do not always affect only the youngest children in the audience. In fact, social status appeals would be expected to be more relevant to older children for whom peer acceptance is more important for their self-concept

Real commercials may utilize somewhat more subtle allusions to social status.[21] For example, commercials which simply show children of the target group's age using the product may border on social status or peer status appeals.[22] However, these subtler executions probably depend more on source effects than on self-concept effects specifically

Product usage portrayals Portrayals of products being used which might potentially harm a child's self-concept include exaggerated portrayals of the

[19]For example, the FTC's celebrated charge against Wonder Bread advertising included the allegation that it "tends to exploit children's aspirations for rapid and healthy growth" The FTC eventually ruled in favor of Wonder Bread in regard to this portion of the complaint

[20]24% - 8% = 16%

[21]Although the above execution seemed no less obvious than the "boy's club" commercial mentioned in the Incidence section

[22]See the previous discussion of social cues

product's play value or performance characteristics, usage demonstrations which are difficult for children to emulate, settings or contexts which are difficult for children to recreate, and portrayals of a child with unrealistically large numbers of products or premiums (All of these are prohibited by industry codes)

Atkin (1975b) tested the first, and perhaps the second of these prohibited portrayals He showed two versions of a "Blockhead" building blocks commercial—one in which a child constructs a modest tower of blocks, and another in which an extremely complicated and extravagant tower was constructed Afterward, the children in the experiment were given the opportunity to play with an identical set of blocks Children exposed to the extravagant usage portrayal were generally unsuccessful in building similarly complicated constructions and during their attempts they displayed more "anger, verbal aggression, and physical aggression" (28 percent) than children exposed to the modest version (18 percent) This was a statistically significant, although not large, difference

Interestingly enough, had Atkin stopped this experiment before the behavioral stage, the implications might have been quite different. The extravagant version produced only one-half the level of brand name recall that the modest version generated—perhaps because of a distraction effect Also, as a measure of commercial-induced desire, children seeing the extravagant version were slightly *less* likely to state that the blocks would be fun to play with

Nevertheless, there was slight evidence that the extravagant version generated greater *expectations* of successful emulation than the modest version, and Atkin's analysis would have been less equivocal if he could have shown that the subsequent behavioral effects of frustration were higher for children with greater commercial-induced expectations This would have constituted clearer evidence of a *self-concept* effect However, as Atkin noted, it could be argued alternatively that self-concept "protection" might also lead children to lie about their expectations.

Despite the difficulty of obtaining a valid measure of mediational expectations, the exaggeration effects can be regarded as having considerable face validity It is difficult to account for children's greater frustration after seeing the extravagant version of the commercial without inferring that they were frustrated because their expectations were not attained

A broader evaluation of this experiment might criticize it as atypical the product usage portrayal was greatly exaggerated But once again, it is possible to offer the alternative hypothesis that slight exaggerations, if not attainable, would be even more frustrating since more children may be tempted to emulate them This is not an easy issue to resolve without a more sophisticated experiment

No experiments have been reported on the other code-regulated aspects of product usage portrayals The research paradigm for each would be essentially similar, requiring some demonstration that children's self-images are involved in their appraisal of commercials which include product usage portrayals

Competitive product appeals The NAB prohibits "competitive comparative superiority claims or techniques" expressly because of their alleged "potential to encourage dissatisfaction on a child's part " The implication is that the child's self-concept is affected We found it useful, as the NAD does, to distinguish *overt* competitive appeals (so called "comparative advertising" in which a direct brand comparison is made by name) and *covert* competitive appeals (indirect, anonymous comparisons in which the superiority or uniqueness of the advertised brand is implied)

Overt comparisons are extremely rare—about 1 percent—in commercials directed to children [23] The usual fear expressed by advertisers is that a comparative commercial may give the competitive brand a "free plug " Consequently, the technique tends to be used only after careful pretesting or when the brand is relatively unknown or has a lot to gain by the comparison

Unfortunately, the one experiment designed to test children's reactions to comparative advertisements (Atkin, 1975c) examined these concerns about advertising strategy rather than the alleged "dissatisfaction effect " The experiment involved

[23] According to a recent *Marketing News* article comparative commercials comprise about 10% of prime time television advertising

two versions of a commercial, one using a comparison strategy, the other (control treatment) mentioning only the advertised product The results showed no differences in the children's recall of the advertised product between the two versions However, the children's recall of the "compared" brand indicated a sizable "free plug" effect for that product. Atkin also found that the comparative commercial did not produce an increased desire for the advertised product The null effects on the "desire" variable are equivocal, as Atkin noted, because he used two highly familiar brands a Hershey bar and a Nestle s bar. But again, the experiment did not examine relative dissatisfaction effects nor anything related to children's self-concepts

It is noteworthy in the Atkin experiment that the children did not seem to have any difficulty *understanding* the comparative commercial The NAD (in contrast with the NAB) allows comparative claims in cases in which true, understandable differences exist between the brands and in which comparisons are not based on selective inclusion of comparative attributes. Commercials meeting these criteria may well be quite informative to children in a aconsumer socialization sense However, no research has been conducted on this contention, apart from the tangential finding in Atkin's experiment that the comparative commercial produced much greater learning of one of two product information dimensions

Despite NAB prohibition, covert competitive claims—or implied "superiority" claims—are estimated to appear in about 11 percent of children's commercials. Some of these claims may be based on documentable superiority (e g , "best selling") although others are clearly subjective opinions, (e g., "the greatest," "fantistic") [24]

Perhaps the most prevalent type of covert competitive claim in *adult* commercials is the so-called "parity claim." Obvious examples are slogans which simply state about the brand that "it's best." This may mean *among* the best or on a par with other top brands Less obvious examples are employed by two well known brands of toothpaste "You can't beat _____ for fighting cavities" and "Only your dentist can give you a better fluoride treatment than _____ " Winick et al. (1973) speculate that "by five, a child can probably understand 'best,' and soon after, the meaning of 'better.' " However Wrighter (1972) points out that although the formally taught quality hierarchy is "good-better-best," advertising suggests a different hierarchy—namely "good-best-better." It is more difficult for an advertiser to support a claim of "better" than one of "best " Therefore, in advertising, "better" tends to become the superlative

A pilot study by Burrall and Rossiter (1975) tends to support Wrighter's position that children cannot discriminate parity claims for what they really are The study used claims which appeared in children's Christmas toy catalogs rather than in commercials, but they are representative of the types of audio claims children may encounter in commercials. The most interesting claims involved the phrases "the best of its kind" and "two of the most delightful . " The sample was deliberately slanted to reflect high verbal ability; subjects were 2d and 4th grade girls from an upper middle class suburban school. Based on the first parity claim, 30 percent of the 2d graders and 40 percent of the 4th graders rated the advertised item as *better* than similar products.[25] Figures for the second claim were 20 percent and 50 percent It seems reasonable to hypothesize that the incidence of children who were apparently fooled by the claim would be higher in a sample of children of lower verbal ability. Also, the increased effect with age hints that children may be learning advertising's new quality hierachy. The experiment obviously needs replication, but it is indicative of the type of effect that subtle competitive claims can have on children's evaluations of advertised products

But whether or not such heightened evaluations affect a child's *self-concept* would require further demonstration: for instance, that advertising might make the child feel disappointed with presently owned products or with an advertised product, once it had been purchased

SUMMARY AND NEEDED RESEARCH

1 *Confusion Effect*

Although a substantial proportion of young children experiences confusion between programs

[24] As Preston (1975) has observed superiority claims may even be implied by a product's name (e g , *Wonder* Bread or *Super* blocks)

[25] Prior familiarity with the advertised items was not a confounding factor The catalog was newly issued with limited circulation and children said, with only one or two exceptions, that they had seen neither it nor the items before

and commercials, there is no evidence in support of the hypothesis that the use of program characters in commercials contributes to this confusion. The one study on this issue produced equivocal results, because the confusion measure was too delayed to be conclusive

A true test of the confusion effect would require a more instantaneous measure of children's ability to distinguish program content from commercial content. Otherwise, it is not clear whether we are testing children's memories or their actual perceptual inability to discriminate. Inability to recall a "host" commercial could indicate an extreme lack of discrimination, or lack of attention, or lack of retention. A better measure of confusion might be a signal-stopping technique in which different subjects are stopped at random intervals and questioned about their immediate perceptions

Future research should also examine whether live program personalities are any different from animated cartoon characters in their potential for confusion. Both types of endorsers are prohibited from selling within or adjacent to their own programs, yet different restrictions are applied to human and animated endorsers elsewhere; generally, animated characters are given much freer reign It is not clear why this should be so.

The single study of the *adjacency effect* hypothesis did not support the contention that program personalities and cartoon characters are less likely to produce confusion if they do not appear in commercials placed within or adjacent to their own programs. However, the nonadjacency condition used in the experiment was confounded by an attempt to test another manipulation at the same time

The same comments on the need for an instantaneous measure of confusion apply here, as does the need to include program personalities and cartoon characters in the research. A new study is needed which provides parameters for the adjacency phenomenon Relevant experimental treatments for commercial placement would be within program, contiguous to program, noncontiguous but within a short time of the program, and noncontiguous and well separated from the program. The first two treatments would correspond to the adjacency ban of the NAB while the remaining two would test the effectiveness of the separation implicitly required in the code's provisions

2 *Endorsement Effect*

Only one study has tested the effects of a direct, testimonial-type endorsement by a celebrity/authority figure, although others have tested less direct endorsements in studies of source effects The study actually found *negative* endorsement effects: subjects who did not like the endorser gave the endorsed product lower ratings Nevertheless, other research leaves little doubt that positive endorsements effects can also occur

At least four studies have shown that a significant change in rated affect toward the endorsed product can occur with even a passive or "mere appearance" endorsement. It is therefore highly improbable that prohibition of direct endorsements will remove endorsement effects, although it may reduce them

The entire area of source effects research in children's advertising is badly in need of theoretical direction and improved methodology The following are the most important points

1 On the source or "stimulus" side, there has been no specification of the characteristics or processes by which endorsers are supposed to produce their effects For example, the FTC consent order against Spider-Man Vitamins alleged that this endorser has the tendency and capacity to take advantage of the trust relationship developed between children and the program character[26] However, source theory in social psychology[27] suggests that any one or a combination of the following factors can produce an endorsement effect

Source characteristic	Process
1 Credibility	Internalization
a Expertness	
b Objectivity	
2. Attractiveness	Identification
a. Likeability	
b Similarity	
3 Power	Compliance

[26]Note that the FTC's move is a marked departure from the previous FTC policy of allowing NAB self-regulation Spiderman is a program character not a human celebrity or an authority, and as such could only be cited under NAB rules for adjacency ruling and the *confusion* effect, not for the endorsement effect

[27]E.g., Kelman 1958 McGuire 1973

Thus, celebrity endorsers may represent a combination of likeability and perhaps expertise. Authority figures, on the other hand, may combine credibility and power—the latter being defined as the potential to reward or punish the message receiver and thus to control compliance with the message With some theoretical direction, we might then be able to ascertain why certain categories of sources are or should be regulated in children's advertising

2. Research on source effects should include an assessment of the source's characteristics—credibility, attractiveness, power—independent of how the source is used in a commercial The product should also be assessed independently Only then can we judge what, and how much, a source adds to a product's intrinsic characteristics via endorsement

3 On the effect or "response" side, most studies of source effects in children's advertising have been content to record changes in overall affect or rated liking toward the endorsed product. But these changes can only be taken as evidence of an endorsement effect (a) if overall likeability is viewed as a product characteristic, and (b) if the endorsement effect is interpreted to include quantitative changes in existing product characteristics and not just the addition of a qualitatively "new" characteristic More informative evidence on endorsement effects would be obtained if we incorporated specific product attributes in the research and measured specific changes in children's beliefs about these attributes as well as the more global index of overall product likeability

4 If the intent of the NAB provisions on indirect endorsement is to reduce rather than to remove a given source's impact, a relevant study would be to provide parameters to the direct endorsement variable by including three experimental treatments appearance only, visual endorsement in which the endorser is seen using or consuming the product but not verbally endorsing it, and a straightforward testimonial

The *fantasy effect* phenomenon is also in dire need of theoretical direction The fantasy effect is probably the most important assumption in the NAB's children's presenter code and it therefore demands more than just an intuitive appraisal. Some theoretical beginnings were mentioned in the study by Winick et al (1973) from which the following list of hypotheses was derived (a) That children perceive cartoons and fiction as a "game" and thus fantasy presenters are perceived as giving a weaker form of endorsement than real-life presenters. (b) Or, to the contrary, that fantasy endorsements are more effective because children are less skeptical of claims made by fantasy presenters than they are of the same claims made by real-life presenters. (c) That humor or magic associated with fantasy presenters adds extra appeal to the presentation and the product. (d) That animated actions are easier for young children to comprehend than live-figure action. (e) That, in cartoon program slots, animated product presenters (not necessarily program characters) make the transition from program to commercial "minimally jarring" to young viewers (Winick et al.'s expression) and may also prevent decline in attention. (f) That certain fantasy characters such as Fred Flintstone or Bugs Bunny are so familiar that they have lost much of their fantasy content.

We suggest two other areas for future research. (g) That children's perceptions of "slice of life" portrayals be examined to see whether these indeed differ from "real life" portrayals; for example, whether role-played authority figures are any different from actual authority figures. (h) Also, the source characteristics and processes model outlined previously would seem to be equally applicable to fantasy endorser research. A theory-based approach would allow us to determine whether it is really fantasy-reality that is the relevant dimension or whether the true differences between sources lie in their credibility, attractiveness, or relative power

One final, general remark should be made concerning the endorsement effect No one has yet investigated the question of whether children regard an endorsement as being an attribute of the product, i.e., that one of a product's characteristics is that it is "recommended by _____." This research would provide insight on children's reasoning in product and source evaluation. It would also raise the issue of whether endorsements are a "legitimate" or "fair" basis on which to promote products to children

3. *Social Stereotype Effect*

It is almost impossible to determine whether or not commercials contribute to the formulation of social stereotypes. Ratio analyses of social cue content in commercials (young-old, male-female, black-white) suggest that they at least have the potential to

do so Children's commercials are biased toward adults on the age ratio and toward males on the sex ratio They are also somewhat biased toward minority groups (mainly black) on the race ratio

If these ratios can affect children's beliefs about the real world—and there is secondary evidence from television program research that they can—an extremely conplex and value-laden issue is raised The issue is whether commercials should be expected to match real world ratios or whether some kind of over-compensation is justified (e g , for women or for racial minority groups) The prosocial potential of commercials in this respect is interestingly illustrated by the tendency of children's commercials not only to override the nonwhite/white ratio slightly, but to accomplish this by almost exclusively depicting integrated racial settings in children's commercials Value judgments aside, it would be of empirical interest to know what effects such practices have

Evidence from one study dealing with occupational stereotypes for women,[28] raised another issue worthy of attention Although the development of social stereotypes is undoubtedly a cumulative process, this study indicated that at least a short-term reverse stereotyping effect could take place in a single exposure Future research on this phenomenon should include measurement of the permanence of the effect and investigation of the possibilities for counterstereotype portrayals for other social cue categories

Social cues in commercials also have relevance to a previous topic, the endorsement effect Here we are concerned not with whether social cues in commercials contribute to the learning of stereotypes, but whether previously learned stereotypes contribute to children's evaluations of products For example, children may react to models in commercials because of the credibility, attractiveness, or power associated with their social characteristics—quite apart from any celebrity, authority, or other special status characteristics they may possess. The evidence showed that children do respond to social cues as a source effect (a) Age cue research indicated that adults were generally more effective than children as presenters and still more effective if shown with children in a joint endorsement (b) Sex cue findings were not as clear cut. Experiments employing male and female endorsers reveal a significant "own sex" effect for boys and for especially among older children. Most studies have been done with child models Given the prevalence of adults in children's commercials, a logical study would be a sex-by-age "crossed" experiment on endorsement effects. (c) Race cue endorsement findings were strong but contradictory a critical variable appeared to be the prior racial socialization of the participating children. (d) Occupational cue research has been confined mainly to studies of the occupational stereotyping of women As only one effects study has been conducted with children's commercials, this is a prime area for further research (e) Research on social behavior cues has not been pursued apart from one study of a public service announcement on littering This neglect is partly due to the difficulty of defining what is "acceptable" social behavior beyond certain extreme examples

A final category of needed research on the social stereotype effect should be mentioned. In the sex cue studies, it was frequently, and not too surprisingly, found that many products are sex-role stereotyped by children This raises the possibility—for other social cues as well—that source effects may operate in reverse That is, products shown in commercials may affect children's perceptions of the characters associated with those products Girls who are shown playing with "male" toys for example, may be seen as unfeminine Again, the purpose is not to pass judgment on such portrayals but simply to alert future researchers to the bidirectional possibilities of the source effect

4 *Self-concept Effect*

Isolated studies have been conducted with each of four types of presentations related to self-concept appeals personal enhancement appeals, social status appeals, product usage portrayals, and competitive product appeals There are two faults common to the existing studies on these self-concept issues The faults are sufficiently critical to deserve special emphasis

a None of the studies has included measurement of the principal variable—the child's self-concept While some of the studies have demonstrated that personal enhancement appeals,

[28] It seems pertinent to reiterate that a separation of the roles of housewife and mother should be made Too often investigators fail to do this The two roles obviously have quite different implications for children's perspectives

social status appeals, and competitive product appeals are effective with children, and that product usage portrayals may be emulated, no attention has been given to any transient or permanent effects on the child's self-concept

Researchers have failed to realize that, in this area and others, the choice of commercials is an important sampling problem In many cases, extreme examples have been selected and no argument has been advanced as to why the particular commercial was chosen or why it was assumed to be a representative case As we pointed out in the discussion, many alleged effects depend on a "parameterized" stimulus These may not be linear parameters, so it is also possible that selection of extreme examples may actually overlook the critical range

In terms of needed research (a) It seems incumbent upon advertisers to document their claims of temporary benefits, such as fun and adventure, or more permanent benefits such as strength, health, and well-being No further academic research is recommended on this topic (b) Social status appeals are more relevant to older children who are more aware of the need for social acceptance Overt social status appeals are very rare in children's commercials but it could be argued that certain endorsers carry social status connotations Further research, therefore, should probably be directed to social status as a subcategory of the endorsement effect, rather than as a practice in its own right (c) Product usage portrayals represent a prime example of a research area in which the two general faults listed above need to be overcome Highly exaggerated portrayals may actually discourage imitation whereas more moderate portrayals might invite it The central research issue is again, however, whether a child's inability to emulate usage portrayals actually affects the child's self-concept. (d) Competitive product claims constitute a topic for which research is strongly recommended Overt competitive appeals, if presented fairly and accurately, may contribute positively to children's consumer socialization Covert competitive appeals, on the other hand, are often undetected in incidence counts since they are little understood Moreover, when they do occur, they tend to be subtle and to hold negative implications for children's consumer socialization However, it is likely that competitive product appeals have more effect on children's understanding of reasoning and logic than on their self-concepts per se

EFFECTS OF PREMIUM OFFERS IN CHILDREN'S TELEVISION ADVERTISING

Premiums are heavily employed as a purchase incentive in certain children's product categories, notably cereals. The FTC has alleged that premiums represent an irrelevant product characteristic, that they distract children from considering legitimate product attributes, and that they multiply the difficulty of choosing between brands. Defenders of premiums argue that they may actually facilitate the choice between otherwise fairly similar brands, and that premiums constitute a legitimate product attribute since they are part of the "total product package."

CURRENT AND PROPOSED REGULATION

The FTC published a proposed guide in 1974 which would eliminate all forms of premium offers in television advertising addressed to children under 12. The prohibition would include offers of "pack-ins" (small toys or other objects included in the package), "pack-ons" (e.g., cut-outs on the side of a cereal box), reusable containers, self-liquidating premiums, and any kind of remuneration for purchase, including free gifts.

The FTC proposal has attracted much criticism from advertisers, who have been using premium offers in accordance with the restrictions of existing industry codes and guidelines. For example, the NAD code permits premium offers but stresses the need to place major emphasis in advertising on the product itself, with the premium as clearly secondary. Some industry spokeman have proposed further restrictions, such as limiting the time devoted to the premium offer within a commercial. For example, the Cracker Jack Division of Borden Foods has proposed that only one-third or 10 seconds of a commercial, whichever is less, should be used to present the premium offer.

The issues are summarized in the rationale for the FTC's proposed guide:

> The very purpose of the premium advertisement is to focus the child's attention on a factor that is almost always completely irrelevant to the merits of the principal product, thereby greatly increasing the likelihood that the child's response to the ad will reflect confusion.
>
> The premium offer characteristically bears no relation to the criteria which would guide choice if the product stood alone. Instead, the premium's main purpose is to distract the buyer's attention from those attributed and to motivate purchase not on the merits of the product but in order to obtain the premium.
>
> The injection of a premium into a buying decision cannot help but multiply the difficulties of choice . . . Merely by adding another group of factors that compete with those already demanding the child's attention, the premium must inevitably increase the likelihood of confusion and of the purchase of an inferior product.

An industry spokesman, Dr. Seymour Banks,[1] questions whether premiums are in fact "completely irrelevant to the merits of the principal product," as stated in the FTC's proposed guide. He cites the case of presweetened breakfast cereals, the products that include the greatest proportion of premium offers. The various brands of presweetened cereals are very similar, differing mainly in shapes and colors. Virtually all of them contain the same ingredients and nutritional content. Dr. Banks argues that a purchaser, faced with such an array of similar brands, will choose one brand on the basis of a discriminating attribute, such as the premium. He questions, then, whether premiums are, in fact, an "irrelevant" product attribute.

"Relevance" and "irrelevance" are not directly amenable to research. Issues about premiums that *are* open to empirical analysis seem to be

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[1] From comments on an earlier draft of this paper by Dr. Banks, vice president of Media Research, Leo Burnett, Inc.

1 To what extent do premium offers "confuse" children from regarding what is actually being sold

2 To what extent do premium messages distract children from using other product features in making product choices Does a premium offer "multiply the difficulties" of product or brand choice?

3 Do premium offers increase intrafamily conflict?

A final research issue arises from the compromise proposal by industry groups to place time limits on the premium offers within a commercial

4 Instead of a total ban on premium offers, would placing time limitations on the premium offer (e g , 10 seconds of a total of 30) achieve the objective of making the premium offer a secondary attribute? Would such a restriction lessen the potential of premium offers to confuse children? Would it make their choices between products relatively less difficult?[2]

INCIDENCE OF PREMIUM OFFERS

Within the past 5 years, two studies have found that about 10 percent of the commercials on Saturday morning television contained premiums (Winick et al., 1973, Atkin, 1974) However, the percentage of premium offers is substantially higher for specific products Atkin found, for example, that 34 percent of all cereals advertised on Saturday morning contained a premium offer

Precise data are not available on the prevalence of premium advertising for other kinds of products or services (such as fast food restaurants) nor are there precise data on the nature of the premium offers themselves Some anecdotal information is available — for example, Shimp et al (1976) cite an FTC source indicating that most premium offers occur within the "last half" of commercials addressed to children

RESEARCH EVIDENCE

Some useful background information for the issues raised by premiums is provided in a purely descriptive survey of attitudes toward and uses of premium offers among mothers and children Conducted by The Gene Reilly Group (1974), the national survey sample of 1,200 was divided evenly between mothers and two age-groups of children (7-9 and 10-12 years) Although the study focused on premiums designed for adults as well as for children, certain findings are relevant to this discussion

- Premiums were most often associated with cereal products by both mothers (82 percent) and children (91 percent)[3]
- 82 percent of children said that they would "most expect to find" premium advertising on television, rather than in other media
- Children report receiving an average of 20 premiums in the past year
- Premium use, and most positive attitudes toward premiums, occur among mothers and children in the lower socioeconomic strata
- 84 percent of children who said that they recently acquired a premium said that it was obtained with the purchase of a product, rather than by sending away for it
- Children were generally satisfied with the most recent premium received, dissatisfaction was linked to "lack of quality"
- Mothers preferred educational premiums and other premiums that could be used by several children or by the whole family They cited plastic toys, toys needing assembly, and easily broken toys as premiums they did not like
- Both mothers and children reported that premiums did not influence their purchase behavior However, the social desirability bias in such questioning makes the validity of the response questionable

[2]We recognize that difficult choices are not necessarily bad One could argue, in fact, that they are beneficial for learning However to the extent that choice difficulty may be related to a child's choosing a brand other than his or her ideal choice (as determined, for example by desired features) choice difficulty may be dysfunctional

[3]As noted both child oriented and adult-oriented ("cents-off" coupons glassware etc) premiums were referred to Since the survey is not always clear which type of premium the mothers refer to most data reported above are from children or from mothers when the reference is clearly to child-oriented premiums

- 86 percent of mothers rated premiums offered to children as being only "fair" or "poor" in overall quality. They generally opposed the idea of television advertising that includes premium offers. Again, social desirability factors make the validity of the latter data questionable.

In general, one could interpret these data as demonstrating that mothers verbally express somewhat negative attitudes toward premiums and are not influenced by premiums in their purchasing. However, the sheer numbers of premiums obtained by the children in the survey suggest that actual behavior is not consistent with these negative attitudes.

The issues of "confusion" and distraction from other product features. Much research in child psychology has examined children's attention to and selection of information from audio and or visual stimuli (see chapter 1). While few studies have focused specifically on television advertising, much less televised premium advertising, the existing research helps us to understand children's information processing, which may have relevance for their responses to premium advertising on television.

Of particular interest are the studies, previously cited in this report, of children's attention patterns while viewing commercials embedded in programs in both laboratory and natural, in-home environments, (Wartella and Ettema, 1973, Ward and Wackman, 1973, Atkin, 1974). These findings consistently show age-related decreases (from nursery school to 6th graders) in children's attention to commercials, relative to program content. Some of the data suggest that younger children show greater variance in attention patterns, perhaps reflecting their shorter attention spans. Only the Atkin study examined children's attention to commercials with and without premium offers, and no differences were found in the children's attention patterns to the two kinds of commercials. Because these studies used rather gross measures of attention, they shed little light on the characteristics of commercials which affect attention in children. They do suggest, however, that commercials have notable "drawing power" for younger children.

Other research in child psychology has some relevance to premium advertising. For example, Hagen has studied aspects of children's information processing and finds a developmental trend in children's ability to remember relevant and irrelevant information (Maccoby and Hagen, 1965, Hagen, 1976, Hagen and Hall, 1973). In this research, the central, "relevant" information was defined as that which is necessary to the performance of a task, such as identifying the position of pictures in a sequential array. Incidental, or "irrelevant," information was not necessary to the completion of the task. The older children (5th and 7th graders) in these studies remembered central information much better than younger children (1st and 3d graders), but memory of incidental information did not change with age. These findings were interpreted by the researchers as a developmental change in attention selectivity. As children grow older they are better able to allocate their attention and to select the information necessary to completion of a task.

Pick et al. (1975) summarized this research on children's processing of central and incidental information by concluding "Accentuating what is irrelevant often makes it more difficult to attend to and use what is relevant." This is especially true for younger children. The evidence also indicates a clear developmental improvement in the effectiveness of children's search strategies. Older children engage in more search activity than younger children, but are also better able to ignore or disregard irrelevant information.

Several other research efforts in this area clearly demonstrate that (1) older children can use more dimensions in problem solving than younger children, and (2) children's reinforcement experiences can play a significant role in their determination of the salience of different kinds of information (Wittryol, Fowden, and Fagan, 1976, Spence and Segner, 1967, Odom, 1972, Odom and Corbin, 1973, Odom and Guzman, 1972). To the extent that these findings can be applied to questions of premium offers in television advertising, they might suggest age-related differences in children's abilities to evaluate premiums and other product features in making product choices. Moreover, children's experiences of positive and negative reinforcement in using premiums originally seen in advertising may foster, or inhibit, the responsiveness of the children to future premium offers.

Two studies have directly examined children's responses to premium offers in television commercials. They followed similar procedures, exposing

Table 4-1
Recall of Specific Commercial Elements

	Premium			No premium		
Grade:	1st	3d	6th	1st	3d	6th
Brand name						
Accurate	2	4	7	2	5	9
Cereal only	8	4	4	8	7	3
Symbol						
Accurate	8	8	7	7	9	12
Other animals	3	2	0	5	2	0
Premium						
Accurate	9	11	12	–	–	–
Other objects	2	0	0	–	–	–
n=	(12)	(12)	(12)	(12)	(12)	(12)

Source Rubin, 1972 Based on responses to the open-ended question "Tell me what happens in the movie you just saw"

children to cereal commercials embedded in programing and then immediately measuring the verbal responses of the children Both studies also involved exposure to a single test commercial as opposed to the repetitive exposures which would occur in the course of normal television viewing

In Rubin's (1972) study, 1st, 3d, and 6th grade children were exposed to a 30-second commercial, either with or without a premium offer Immediately after exposure, they were asked a series of questions about the commercial. what they recalled, what they felt they were supposed to want, what they were supposed to do with the product, etc Since some of the questions were fairly abstract, they may have been difficult for the younger children to answer — e g , "What do you think (movies, ads, commercials) are supposed to be for?" "Why do you think people make them?" Further, some caution must be used in interpreting results because of the limited verbal abilities of younger children. Nevertheless, most children did provide some answers to each question

Data on the recall of the children were obtained from the question. "Tell me what happens in the movie you just saw?" "Anything else?" As table 4-1 indicated, only the 6th graders had reasonably high recall of the brand name in the commercial, both with and without the premium Only a few 1st graders recalled the brand name in either condition although almost all of them remembered that the commercial concerned cereal The 3d graders were split evenly in both conditions There was high recall of the specific premium offer, a toy car, in all age groups.

In both conditions, the product symbol was accurately recalled by a relatively high percentage of all of the children. It is interesting to note that all of the 6th graders accurately recalled the symbol in the no-premium condition, whereas only 7 of the 12 mentioned a symbol in the premium condition This suggests the possibility that the premiums distracted attention from the brand name

The salience of the premium offer was assessed by examining children's responses to the question "What do you think you are supposed to want after seeing the movie?" Results appear in table 4-2 In both the premium and no-premium condition, most of the 3d and 6th graders exposed to the premium ad said that the commercial was trying to make them want *both* the cereal and the premium. Among 1st graders, there was a substantial difference between the two conditions In the no-premium condition, 9 of the 12 children said the advertiser wanted them to buy cereal But in the premium condition, only one 1st grader thought he was supposed to want cereal Four of the 1st graders thought they were supposed to want the premium, and six of them didn't know what they were supposed to want

Table 4-2

What Children Think They Are Supposed To Want after Exposure to a Commercial

Supposed to want	Grade:	Premium 1st	Premium 3d	Premium 6th	No premium 1st	No premium 3d	No premium 6th
Cereal		1	3	5	9	8	10
Cereal (emphasized) plus premium		0	5	4	–	–	–
Premium only		4	3	3	–	–	–
Other		1	0	0	2	1	1
Don't know		6	1	0	1	3	1
n=		(12)	(12)	(12)	(12)	(12)	(12)

Source Rubin (1972)

Table 4-3

Recall of Product Information by Timing of Premium Feature

Timing of premium	Age below 7 years: Correct responses	Age below 7 years: Number of responses	Age 7 and older: Correct responses	Age 7 and older: Number of responses
10/20[a]	10 09[b]	11	11 59	39
15/15	8 17	12	10 62	37
20/10	8 70	10	10 00	38
0/30	9 50	12	10 97	38
n=		(45)		(152)

[a] To be read 10 seconds of commercial devoted to premium information/20 seconds devoted to product information

[b] Indicates the mean number of correct responses to the 15 questions concerning product information presented in the commercials

Source Shimp, Dyer and Divita 1975

These results suggest that the insertion of the premium information confused the youngest children but not the others. This appears to support the general research which indicated that the accentuation of incidental information makes it difficult for young children to attend to and use relevant information. Rubin's data must be interpreted with caution, however, for reasons beyond the small sample sizes. A major problem is that the no-premium commercial featured a conventional story-line format while the commercial with the premium offer used a form of collage—i.e., flashes of events and no basic story line. Moreover, it may be that even the younger children received information about the premium commercial, but chose to talk about the premium because it was more salient to them. It may be that the premium offer did not interfere with the transmission of information about the product, but, rather, superseded it.

In Shimp, Dyer, and Divita's (1975) study, 197 children, 1st to 6th graders, were presented with one

of four versions of a 30-second commercial for a hypothetical cereal product named Snappy Fruit Smacks One version had no premium offer, the other three contained 10, 15, or 20 seconds of premium information Immediately after exposure, the children were given questionnaires consisting of true/false questions about the product and premium offer Rankings of the children's preferences for the advertised product and two alternative cereals were also obtained. Shimp et al 's subjects were primarily older children, only 45 of the 197 children were below the age of seven Thus, there was an underrepresentation of young children, the age group for whom there is the most concern

The Shimp findings for recall are similar to those of the Rubin study. In all of the test situations, children below 7 years old recalled less information about the product than older children (see table 4-3). Out of 15 true/false items used to test the children, the younger children correctly answered only slightly more items than would be expected by chance alone The young children demonstrated the best recall in the commercial which comprised a 10-second premium offer and 20 seconds of product information Shimp et al assigned significance to this finding, concluding that premium advertising may enhance the attention of younger children This conclusion appears unwarranted, however, in that the authors do not report whether these differences in recall among the experimental conditions were statistically significant Also, Shimp et al do not report the nature of the kinds of information the children recalled from the commercial (i e , brand name, symbol, etc), therefore, we cannot directly compare this research to Rubin's findings

Shimp et al also measured the children's attitudes toward the advertised product and premium Utilizing control and experimental groups, the Shimp study found no differences in attitudes toward the cereal product, suggesting that the premiums made the advertised product neither more nor less attractive to the children [4] However, there was a moderate, significant correlation (20) between the attitude of the children toward the premium and their choice of a product brand This suggests that the more children liked a premium object, the more attractive the particular brand was to them On the other hand, very few children chose an experimental product brand against two known brands—only about 10 percent of children in each group ranked the unknown experimental product as their first choice

Since the four groups did not differ in preference for the advertised product, the authors of the study argue that premium advertising appear to have little impact on the children's actual preference for cereal brands However, the authors do not report (1) whether the children had a history of requesting or using either of the two known cereals in the brand choice or (2) whether the two known cereals also advertised a premium and, if so, whether the premium was visible on the box displayed to the children in the brand-choice test Consequently, it is difficult to determine whether the low frequency of choice of the experimental cereal can be accounted for by the commercial, the premium advertisement, or other factors

In short, the Shimp et al research suffers from several severe limitations in choice of subjects, measurement procedures, and data analysis Replication of this study is needed

Three other studies are relevant to issues concerning children's abilities to use multiple attributes in product selections Wartella and Ettema (1973, 1974) and Atkin (1974), previously described in chapter 1, embedded commercials in half-hour programs and asked children immediately after viewing the program, to recall the commercials Although we noted earlier that such open-ended questions may tax the verbal abilities of the younger children and consequently may fail to elicit their recall, the central findings from these two studies were nevertheless consistent Few of the children recalled having seen specific commercials during the program For example, in Atkin's study, only one-fourth of the subjects could recall the commercial with a premium and only 21 percent could recall the no-premium commercial In the Wartella-Ettema study, even smaller percentages of children remembered seeing a specific commercial

The 1973 Wartella and Ettema study also assessed specific information that children recalled The findings indicated that the youngest children (3-4 years old) recalled only visual and auditory images from the commercial For the older two age groups (5-6 and 7-8 years), there was increasing recall of claims about the product (e g "It tastes

[4] Shimp et al do not report their data by age groups thus we cannot discuss age related differences in the children's attitudes

Table 4-4

Mother's Reports of Child's Requests for Cereals

Question: "When your child asks for a specific cereal, what does he/she usually say . . what reasons does he/she give for wanting it?" (If premium not a major reason offered by mother: "Does he/she ever say that he/she wants a cereal so he/she can get a premium or prize in the box?")

Grade:	Pre-K	1st-3d	4th-5th
Premium cited originally	47%	51%	42%
Premium cited in followup	35%	36%	40%
Premium not cited	18%	13%	18%
n=	(75)	(81)	(55)

Source Atkin (1975g)

good," "It's good for kids,") although recall was still predominantly of images

Studies cited earlier (Ward and Wackman, 1972, 1974) also assessed the information children remember from commercials Children were asked to name their favorite commercial, then to describe what happens in the commercial The data indicated a developmental progression of recall from one or two visual images for young children (1st and 2d graders) to increasingly complex, multidimensional, and complete recall among older children (5th and 6th graders) In Rubin's (1972) study a similar developmental trend was indicated Young children, preschoolers, and early grade school children recalled fewer images from the commercials As age increased, recall included more and more different kinds of information, and both the story line and purpose of the commercial became better understood.

Premium offers and purchase requests Two other studies by Atkin (1975g and f) examined the importance of premiums in children's decisionmaking, using (a) mother's reports of the nature of children's purchase requests, and (b) in-store observations of mother-child interactions The first study was based on personal interviews with mothers of children ranging in age from 3 to 11. Of the 301 mothers interviewed, 211 stated that their children "sometimes" request specific cereals seen on TV. These mothers were asked to report the reason their children usually give for his/her cereal requests (table 4-4); 47 percent said that their children cited the premium as the basis for the request. Those mothers who did not spontaneously mention premiums were asked if premiums were ever given as the reason, and about one-third then indicated that premiums were sometimes the reason for a particular brand's request

One may question the validity of mothers' reports of their children's attempts to influence purchases. Assuming these reports are valid, however, the findings do not necessarily mean that premium offers "distract" children from consideration of other features of the product Nor do they indicate whether children examined other product features and, finding most brands indistinguishable, chose to base their preferences and requests on the premium offer. We can say, however, that Atkin's findings reflect the salience of premium offers in breakfast cereal advertising and suggest that children like premiums

Atkin (1975f) also made in-supermarket observations. Potentially, this should be the more valid method of gathering data on this subject. Observers were placed unobtrusively around the cereal aisle of a supermarket. Listening to mother-child dialogues regarding cereal purchases, they found that 9 percent of all children's cereal requests contained an explicit mention of a premium offer

One final study provides additional information about the considerations of children in product selection, and the relative importance of premiums (Reilly, 1973a). Personal interviews were conducted with a national sample of 6- to 15-year-old children, covering a wide range of media-related topics. One series of questions concerned children's product choices "When you see a TV commercial for a product, would you like the product more if (two alternative choices)" Table 4-5 shows the results from all the questions which offered "prizes inside the package" or "offers on or inside the package" as one of the alternatives Particular attention should be paid to the age differences in these data Most of the youngest children chose the premium alternative; the older children made this choice less often

Table 4-5

Children's Preferences in Television Commercial Appeals

Question: "When you see a TV commercial for a product, would you like the product more if it . . ."

Age:	6-7	8-10	11-12	13-14
Base: Only those responding	145	285	240	229
Had an offer	52%	40%	34%	31%
Were nutritious	43%	54%	58%	59%
No difference	5%	6%	8%	10%
Base: Only those responding	152	288	234	228
Had a prize inside	57%	51%	38%	29%
Were nutritious	35%	42%	51%	55%
No difference	8%	7%	11%	16%
Base: Only those responding	147	280	234	231
Were natural	29%	39%	52%	58%
Had a prize inside	67%	56%	42%	29%
No difference	4%	5%	6%	13%
Base: Only these responding	145	278	236	230
Were enriched or fortified	28%	45%	58%	62%
Had a prize inside	67%	52%	35%	26%
No difference	5%	3%	7%	12%

Source Reilly, 1973a.

Several reasons for this finding are possible. Premiums are usually designed for younger children and therefore lost their appeal for older children Older children may also have a greater tendency to respond with what they perceive to be a more socially accepted answer based on the quality of the product itself. Finally, older children may realize that the true worth of a purchase is in the product and not the premium.

To sum up, the evidence from research both on child development and on television commercials seems clearly to indicate that the selective nature of children's attention to and information drawn from television commercials is not random and that there are specific, developmental changes which occur as children grow older Because the research on children's attention to television commercials is so limited, the specific kinds of information that children of different ages select from advertising is not very well known. Rubin's research indicates that a product's brand name, symbol, and type of premium are three key features recalled to varying degrees by different age children. The Rubin, Wartella-Ettema, and Ward-Wackman studies also suggest a general movement with increasing age from the recall of a few perceptual images to more complex forms of recall. A better understanding of children's information selection from commercials awaits more research.

Existing research is limited in another significant way. None has addressed the question of the cumulative effects of commercials on children's selection and use of information. Yet repetitiveness would seem to be the single most pervasive feature of

television commercials The research reported in the next section, although not directly assessing the impact of repeated commercials, may provide some insights into the effects of this characteristic on children's use of information from commercials.

Intrafamily conflicts. Does premium advertising on television stimulate children to request purchases by their parents, and do these requests, in turn, generate in-family conflict? An early study by Ward and Wackman (1974) found a small, statistically significant correlation between the frequency of purchase requests and a general measure of parent-child conflict ($r = .18$, $p.05$) More specific data on this topic are provided in Atkin's (1975) supermarket observations, which report that most mothers yield to cereal requests in the supermarket (75 percent). However, premium-based requests were accepted somewhat less frequently (68 percent) than requests based on other reasons (80 percent).

Atkin also observed that denial of cereal requests ended in conflict more frequently when requests were based on premiums (29 percent vs only 8 percent for requests for nonpremium cereals) The mothers reported that their children reacted somewhat more negatively, with anger or disappointment, when their requests were based on a premium (table 4-6). Also, mothers who received premium-based purchase requests reported a higher frequency of arguments following the denial.

Another area of intrafamily conflict which has not been explored to data is sibling conflict. Atkin hints at this when he cites among the reasons the mothers used in rejecting their children's purchase requests in the supermarket that "other children in the family would fight over possession of the premium." Unfortunately, Atkin does not give specific figures on the frequency of this reason.

Table 4-6

Outcomes of Cereal Requests By Reason Cited for Request

	Request because of premium[a] (n = 99)	Request for other reasons (n = 112)
When your child asks for a certain cereal, do you ever tell him/her that he/she can't have it?		
Yes	78%	72%
No	22%	28%
(If yes:) How does he/she react when you say no?		
Angry	6%	4%
Disappointed/pouting	25%	18%
Doesn't bother child	33%	34%
Understands denial	8%	9%
Persistence in request	2%	3%
Substitute request	4%	4%
(If yes:) When you say that he/she can't have a cereal, how often do you argue with him/her? Would you say a lot, sometimes, or never?		
Argue a lot/sometimes	42%	25%
Argue never	36%	47%

[a] Mothers were categorized into the "Premium" classification if they cited premiums in response to the open-ended question concerning the reasons given by the child for wanting the cereal The "Other reasons" category included those who originally gave nonpremium reasons, even though they subsequently responded positively to the followup direct question about premium-based requests

Source Atkin, 1975g

In sum, the data concerning intrafamily conflict appear to indicate that premium-based requests *do* increase conflict However, the frequency and seriousness of these conflicts have not yet been examined

Time-based restrictions A final issue concerns whether the proposal for time limitations on premium offers within television commercials would be effective to ensure that the premium would be viewed by children as a "secondary" feature of the product Shimp et al 's data, discussed earlier in this chapter, are directly relevant to this point. Children who viewed the 30-second commercial in which half or more of the time was devoted to a premium message has a lower recall of the product information than the children who saw a message for the same product without the premium offer However, those children who saw the commercial with a 10-second premium message actually had a higher recall of product information than the group that saw the no-premium version. This was true for both younger and older children.

As we noted, the authors argue that their findings support limitation on time (10 seconds with: second commercials) which could be devoted to a premium offer for maximum recall of a commercial However, such a conclusion seems premature Time-limitation proposals assume that children's attention to information is proportional to the amount of time devoted to its presentation This assumes that the features of all commercial messages are weighted equally, with the only difference being the time devoted to them However, these assumptions run counter to much current literature on children's attention, which defines attention as a selective process which may bear no relation to the time devoted to presentation To date, there is no sufficient information to make a judgment regarding the possible effectiveness of time limitations Research is needed which varies the time devoted to premium offers with other presentational characteristics of television advertising

SUMMARY

It appears that the key determinant of a child's likelihood of being "confused" by premium messages is his/her stage of cognitive development. Rubin's data shows that younger children have the greatest difficulty in comprehending the purpose of commercials containing premium offers, and that they also have the least organized recall (Ward and Wackman's studies show the same general effects) and are very likely to confuse the purpose of premium messages Some younger children may think the premium is the primary product Older children, however, are much better able to distinguish the product from the premium offer In trying to answer the questions posed at the beginning of this chapter, we must constantly distinguish the differences in children's levels of cognitive development.

Premium offers do not appear to *significantly* affect children's recall of product attributes. Stages of cognitive development are of much greater importance in this area However, premiums sometimes do far outweight all other product features in children's brand choices Again, we see this more frequently in younger children

It appears that there may be a relationship between intrafamily conflict and purchase requests when premiums are involved Data are not available to indicate whether this conflict is greater than that involved in other product requests

On the question of time-based restrictions on premium advertising, data are inconclusive. Time proportions may be a rough guide to influencing children's attention patterns and selection of information, but more research is needed on (a) the relative efficacy of different cues in advertisements, and (b) the variations in attention and learning which may result from differences in both the timing and saliency of the content of commercials

NEEDED RESEARCH

The limited samples, and the analytic problems of many of the studies reviewed here, might suggest that top priority should be given to expansion and partial replication of the research to date. However, the findings from the studies of premium advertising, plus basic developmental studies with children, would appear to be sufficient evidence that younger children weigh premium offers heavily in their attention to and recall of advertising Whether such a reaction can properly be called "confusion" would seem to depend on how one defines the term At the very least, however, the reaction may be characterized as a tendency of younger children to evaluate other features of commercials less judiciously than if

these features had appeared in messages without premium offers

Because these findings are confirmed across several studies and are consistent with what one would expect from cognitive development theory, and because findings of age-related differences do not readily lend themselves to policy alternatives, any replication and expansion of previous research along these lines should not be the top priority for future work. Rather, priority should be given to research which examines various techniques and features in television commercials which might help children evaluate and use all of the elements of product and brand information in forming judgments about advertised products. In addition, a series of instructional television messages could be designed to help children evaluate the various features of commercials in making consumer decisions.

Without some better understanding of presentational modes of children's commercials, it does not seem advisable to promote research on the effects of time allocations to premium and nonpremium content. That is, since not all elements within a 30-second spot are equally salient to children, allocating specific times to premium and nonpremium messages cannot in and of itself ensure that children will use all of the elements in making product and brand evaluations. Even if it were confirmed that children demonstrate the greatest recall of all commercial elements when 10 seconds is devoted to the premium and 20 seconds devoted to other product features, an adoption of such time restrictions would not be warranted, since the presentation of commercials could be designed to accentuate premium portions and "downplay" the other portions of the advertisements.

In summary, because industry guidelines endorse the desirability of ensuring that premium offers are "secondary," the chief research need in this area is to identify efficacious methods of presentation to ensure that children evaluate premium offers in advertising messages, and consider them in the context of the product and the message.

Chapter 5

VIOLENCE AND UNSAFE ACTS IN TELEVISION COMMERCIALS DIRECTED TO CHILDREN

Although violence and unsafe acts are relatively infrequent in commercials directed at children, this issue warrants special attention because of the seriousness of the effects that may be involved. Three potential problems are examined in this chapter, two relating to depictions of violence and the third to depictions of unsafe acts. The three are treated together here because their effects largely involve a common mechanism among children imitation

1. *Fantasy violence in commercials* When violence is depicted in commercials it is most likely to be in the form of fantasy—i.e., in a cartoon or other make-believe presentation Television industry spokesmen have long argued that "fantasy violence" is not the same as either real-life or realistic (acted) violence and that children can distinguish the two. The usual corollary to this argument is the belief that fantasy violence is harmless and may even serve as a valuable "cathartic" release for the audience. We shall examine the evidence on children's ability to distinguish fantasy violence from realistic and real-life violence, as well as the types of effects that various kinds of violent portrayals may have on children.

2. *Commercials adjacent to violent programs* An increasing number of individual sponsors are withdrawing commercial support from certain television programs that they consider to be excessively violent This moralistically motivated action hides a more serious consideration for advertisers that commercials may actually interact with violent program content to affect viewers; and specifically children's, behavior and attitudes toward violence[1] We shall review some recent evidence which suggests that commercials may heighten the impact of violent program content in certain circumstances, while reducing its impact in others

3. *Unsafe acts in safety messages* There has been little controversy regarding the proposition that unsafe acts should not be shown in children's commercials. However, public service announcements (PSA's) which attempt to teach children not to engage in unsafe behavior have generally been considered exempt from this proposition. The issue is whether the very portrayal of unrecommended or dangerous acts might lead to children's imitation of the acts.

CURRENT AND PROPOSED CODES

Portrayals of violence in children's commercials are prohibited by both the NAB and the NAD. The NAB code explicitly recognizes the possibility of psychological as well as physical or behavioral effects.

> Material shall not be used which can reasonably be expected to frighten children or provoke anxiety, nor shall material be used which contains a portrayal of or appeal to violent, dangerous, or otherwise antisocial behavior

The NAB also prohibits dramatizations of any product in a "realistic war atmosphere" and advertising of feature films other than those appropriate for a general family audience. The NAD code is fairly similar. It prohibits portrayals of violence, appeals to fear, and other portrayals which contravene generally accepted social, legal, or moral values.

Portrayals of unsafe acts are also prohibited by both codes. NAB's general policy is contained in the following

> Advertisements and products advertised shall be consistent with generally recognized standards of safety. Advertisements shall not include demonstrations of any product in a manner that encourages harmful use or dramatizations of actions inconsistent with generally recognized standards of safety.

The NAD code is similar. In general, it prohibits unsafe demonstrations and portrayal of people engaged in unsafe acts However, the NAD code

[1] Interaction effects are also of interest to advertisers in that violent or exciting programs may influence a commercial's effectiveness

allows portrayal of an unsafe act if the portrayal occurs in a "specific safety message." The NAB presumably makes this exception also, although their codes do not explicitly cover the safety message contingency.

INCIDENCE

Violence in commercials. Unfortunately, the most recent content analysis of children's commercials (Barcus, 1975a) did not employ a violence category. In an earlier content analysis of children's commercials in 1971, Winick et al. (1973) found a 16 percent incidence of children's commercials that would probably meet Gerbner's (1972) definition of violence in his content analysis for the Surgeon General's report on TV violence: an "overt expression of physical force against others or self, or (a) compelling of action against one's will on pain of being hurt or killed." The Gerbner definition includes portrayals of real-world violence—e.g., news film of fights or warfare or certain sports—as well as the fantasy violence children are most likely to see in programs or commercials.[1]

The commercials cited by Winick et al. all employed "villains" in their product presentations:

> Typical situations involving villains are a dragon devouring a village, gangsters walking menacingly toward a counterfeiter, a slave master overseeing galley slaves, a Western bad-man threatening a poker cheater, and Count Dracula holding a victim (p. 30).

Some contemporary commercials would also meet Gerbner's physical violence definition, although these are not necessarily shown during or adjacent to children's programs. Examples are an animated commercial for a well known brand of fruit drink and a commercial for a lesser known brand of beer, both of which show a boxing match. Another commercial for a low-calorie beer concludes with the line, "And if you don't believe me, I'll break your nose." The beer commercials are not directed at children, of course, but they are aired on popular sports programs which are likely to be seen by many older children.

During the weekday afternoon time slot, a traditionally heavy viewing period for young audiences, Barcus (1975b) found a number of commercials promoting television programs which typically contain violent action.[2] Thus, children are likely to see some acts of physical violence in current commercials, although the number probably does not reach the 16-percent figure estimated by the 1971 Winick data.

Another category of commercials which are of concern here are those which employ potentially frightening or fear-arousing themes. The presentation of such themes is prohibited by current children's codes, but just under one-third (29 percent) of the 1971 commercials studied by Winick et al. may have had this characteristic in their use of bizarre story settings. Bizarre spokesmen appeared in 10 percent of these commercials, monsters and witches in 7 percent. No comparable categorization was used in the more recent Barcus studies, so we do not know the current incidence of frightening or fear-arousing themes. In the past few years, frightening or fear-arousing themes seem to have become less controversial than more overtly violent portrayals.

Although not stated in any of the available content analyses, it seems safe to infer that most violence or fear-arousing themes in children's commercials are make-believe portrayals and usually animated. This contrasts with a tendency toward nonanimated commercials for children in general. The Barcus (1975a) weekend morning count of children's commercials listed 16 percent animated, 26 percent mixed, and 58 percent nonanimated. Comparable figures for weekday afternoon commercials were 10 percent, 12 percent, and 78 percent (Barcus, 1975b).

Violence in children's programs. The incidence of violence in children's programs is relevant to our examination of children's commercials for the reason

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[1] Gerbner's definition does not make any distinction between fantasy and realistic violence. Other definitions do. For this discussion, for example, since 1972 the Office of Social Research at CBS has been using a violence index which excludes most types of cartoon violence. The CBS index shows that television has become more violent from 1972-1975, whereas Gerbner's data show no significant change during the same period.

[2] The shows and the number of promotions over five days on the 10 independent stations Barcus sampled were *Mod Squad* (2), *Lancelot Link* (1), *Dragnet* (1), *Lassie* (2), *FBI* (1), *Bonanza* (3), and *Peyton Sawyer* (1). Most of these would rate high on violence counts, and the most violent segments are generally selected for excerpts in promotions.

stated earlier namely, the possibility of interaction between the commercials and violent program content A related possibility is that younger children are unable to discriminate commercials and program content, especially if both program and commercial are animated

A recent study of 1975-76 Saturday morning children's programs by Media Action Research Center[4] found that an aggressive act occurred every two minutes, rising to almost once a minute in cartoon programs[5] Barcus (1975a) provides a more detailed breakdown along with a comparison of the figures from four years earlier (Barcus, 1971) Table 5-1 shows the plot-relevance of these violent acts According to these figures 58 percent of the children's weekend morning programs analyzed in 1975 contained violence by the Gerbner definition In half of these programs violence *was* the plot—but these were all comedy programs and, therefore, the "saturated usage" of violence was probably all in the fantasy idiom Realistic acts of violence also occurred in about half of all the weekend morning programs (the noncomedy programs), but presumably at a considerably lower rate in that these acts were "subordinate" to the plot

Since imitation may be more a function of type of portrayal than of rate,[6] it is useful to examine a breakdown of the types of violence that occurred in the comedy and noncomedy programs and the incidence figures for potentially frightening or fear-arousing themes in the programs (see table 5-2)[a] Data are again from Barcus (1975a)

Two general conclusions are apparent from the figures in table 5-2 First, children watching weekend morning programs may encounter imitatable violence—i e , character-produced rather than natural or accidental acts—in at least half the programs Second, situations which could potentially produce fear, anxiety or at least generalized arousal or excitation in children may occur in at least half the programs

Unsafe acts in commercials As with the definition of violence, the criteria for defining unsafe acts are not always clear-cut Some critics allege that certain products, such as fireworks or drugs, are in themselves unsafe for children and that merely to advertise them constitutes an unsafe act In this chapter, we will confine our discussion to acts which may result in physical harm to children regardless of the product associated with the actions

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[4]Cited in the *Wall Street Journal*, October 19, 197[illegible]

[5]According to Gerbner [illegible] rate of one every two minutes is about three times the rate found in adult comedy and drama

[6]This hypothesis is developed in Chapter [illegible] which discusses repetition effect See also the discussion of single-time exposure later in this chapter

Product-based safety criteria are vague at best For example, a number of products that pose an immediate physical threat, such as firearms or fireworks, can be advertised on television although they rarely are On the other hand, products which appear to pose a less immediate physical threat, such as hard liquor and especially cigarettes, are banned Clearly, this apparent inequity cannot be explained by the severity of consequences since firearms may certainly be just as lethal as [illegible] Other safety prohibitions for television commercials do not involve threats of any obvious physical nature For example, the prohibition of commercials for fortune telling, occultism and betting information

Product-based safety criteria in children's television advertising are exemplified in Chapter 6 of this report, which examines proprietary medicine advertising, and in Chapter 7, which examines food advertising

Table 5-1

Plot Relevance of Violence for Weekend Morning Children's Programs

	Percent of comedy programs	Percent of noncomedy programs	Percent of all programs (1975)	Percent of all programs (1971)
Saturated usage, plot would not exist without it	35	0	29	30
Subordinate usage, could be eliminated without affecting plot	25	46	29	23
Total	60	46	58	53

Source Barcus (1971, 1975a)

Table 5-2

Types of Violence in Weekend Morning Children's Programs

	Percent of comedy	Percent of noncomedy	Percent of all programs (1975)	Percent of all programs (1971)
Human violence with weapons	58*	15	50	57
Human violence without weapons	35*	15	31	37
Death or injury as a result of violence	19	39	23	(NC)**
Natural or accidental violence	12	31	16	(25)
Fear-arousal situations				
Chase scenes	53	39	50	(53)
Frightening situations	11	77	24	(NC)

* Since the comedy programs included cartoons, these figures include animated portrayals

** Noncomparable coding criteria in the 1971 study

Source: Barcus (1971, 1975a)

Recent incidence figures for portrayals of unsafe acts are difficult to obtain. Winick et al. (1973) found that 4.7 percent of children's commercials in 1971 portrayed "an activity or situation inconsistent with generally recognized safety standards." These included a person driving a truck with one hand and a situation in which two children are shown eating in a rowboat without adult supervision. The more recent studies by Barcus (1975a, b) did not screen commercials for depiction of unsafe acts, although such acts undoubtedly occurred in some of the commercials. One example would be the celebrated "wild plants" cereal commercial (Poulos, 1975), another would be a current commercial which shows a child licking a knife used for scooping peanut butter.

Since the industry and commercial groups are agreed on the undesirability of unsafe acts in children's commercials, the main issue here is the depiction of unsafe acts in public service announcements. The incidence of PSA's addressed to immediate physical safety (rather than long-term physical or mental health) is relatively low during children's viewing hours. During the morning hours the three major networks over one weekend, Barcus (1975a) counted 10 safety commercials (bike safety, seatbelts, etc.). This figure gives us some idea of the incidence of safety commercials, but no count is available as to how many of these PSA's depicted unsafe acts as a means of demonstrating the safety message.

RESEARCH EVIDENCE

The review of evidence on violence and unsafe acts in children's television commercials is organized according to the three issues identified in the introductory section of this chapter. The first issue concerns fantasy violence, the type most likely to be utilized in children's commercials. We will focus initially on the question of whether children are capable of detecting the cues which distinguish fantasy violence from more realistic portrayals of violence. Then we will see whether this makes any difference in terms of children's behavior, including both the short-run effects in the in-home viewing context and the longer-run effects, such as interpersonal aggression, tolerance of aggression, and catharsis.

The second issue concerns the interaction between commercials and violent programs. We shall see that it is necessary to go beyond the question of whether commercials are violent and to consider the potentially favorable or unfavorable role that commercials may play in the overall viewing experience. Finally, we will examine the evidence on portrayals of unsafe acts. In particular, we will examine whether unsafe acts can be safely portrayed in safety messages to children.

Children's perception of fantasy cues. So far in this report we have followed the definition of violence

used in Gerbner (1972). Critics of this definition have argued that no account is taken of *cues* which may render the violence less real or meaningful. For example, Gene Mater, a CBS vice-president, recently offered the following criticism: "When Bugs Bunny pours a pitcher of milk over a chipmunk's head, that's violence to Dean Gerbner. Do you look upon that as violence? I sure as hell don't." (*Wall Street Journal*, October 19, 1976). The real question, obviously, is not whether Mr. Mater sees this as violence, but whether children do. In other words, are children capable of detecting the "fantasy cues" that might allow them to "discount" a portrayal as not really violent?

The 1972 Surgeon General's report on television violence concluded that young children are not capable of detecting fantasy cues:

> The very young have difficulty comprehending the contextual setting in which violent acts are depicted and do not grasp the meaning of cues or labels concerning the make-believe character of violence appeals in fictional programs.

However, only one study (Leifer and Roberts, 1972) was cited in support of this conclusion. This and two more recent studies are reviewed below. Before examining these studies, however, we have found it worthwhile to attempt a classification of violent portrayals based on the fantasy-cue hypothesis. In Table 5-3, types of violent portrayals are identified in an approximate continuum of fantasy-cue associations.

A violent act in a cartoon (e.g., the fruit drink commercial mentioned earlier) typically has three cues to label it as fantasy: animation, humor, and in many cases a setting that is remote in type, time, or place. A violent act by humans in a clearly make-believe portrayal or setting (e.g., science fiction or period settings, clowns) typically has at least one cue to label it as fantasy, the remote setting of make-believe. It may also have humor as a cue. A violent act in a fictional but realistic portrayal may be distinguished from real portrayals of violence by only one cue: the viewer's knowledge that it is a fictional setting and that the portrayal is acted (the beer commercials mentioned earlier would fit this category). A violent act in a real portrayal has by definition no fantasy cues. It is, however, a *portrayal*, either live or on tape, rather than the actual *in vivo* event.

Evidence that children can in fact distinguish these four types of violent portrayals was provided in a study by Snow (1974). Open-ended interviews, using a structured format, were conducted with 50 middle-class boys and girls, 19 of them aged 4 to 8 and 31 aged 9 to 12. Snow first asked the children about four different types of programs to see which they would label as "make-believe" and which "real." The results are summarized in Table 5-4.

It would appear that the humor and remote setting of *Bewitched* were sufficient to signify to even the youngest children in the sample that the program was make-belive. On the other hand, another contemporary but more realistic setting (*Brady Bunch*) produced, as we might expect, mixed ratings from the children, with the younger children particularly regarding the program as real, or at least more real or realistic than it is make-believe. Television news was regarded as real by all of the children. These results suggest that children, by the age of four, can distinguish real from make-believe content on a general basis.*

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* Apparent support for Snow's findings [illegible] study by Greenberg and Reeves, summarized in Comstock [illegible] 1975, in which older children [illegible] younger children [illegible] television programs as real [illegible]

Table 5-3

Types of Violent Portrayals and Possible Fantasy Cues

	Possible fantasy cues
Cartoon violence	animation, humor, remote setting
Human, make-believe violence	humor, remote setting
Human, realistic (acted) violence	fictional setting
Human, real-life violence	no fantasy cues

Table 5-4

Children's Perceptions of "Real" vs. "Make-Believe" Programs

	Percent describing programs as "make-believe"	
	4-8 yrs.	9-12 yrs.
Saturday morning cartoons	100	100
Bewitched	100	100
Brady Bunch	26	45
News	0	0

Source Snow (1974)

Next, Snow asked the children which of a series of portrayals (described verbally, not shown) they would regard as violence. The word "violence" was explained to the children as "physically or verbally hurting someone." The results are summarized in Table 5-5, and they fit the fantasy cue hypothesis very well.

The data in the table indicate that the more fantasy cues presented in a portrayal, the more likely that the children would regard the portrayal as violence. The order of effectiveness of the fantasy cues appeared to be as follows: animation, humor, and a remote setting. Unfortunately, an example of a realistic portrayal (e.g., *Police Story*) was not included in the Snow study, so we cannot gauge the effectiveness of a fictional program cue alone. It is a reasonably safe bet, however, that such examples would receive somewhere between 65 and 100 percent violence-perception ratings. Even with various fantasy cues present, however, a significant portion of the children, especially the younger children, identified the portrayals as violence.

A slightly different approach was used in the study by Liefer and Roberts (1972). These investigators were interested not so much in what children choose to label as violence, but in whether children can understand the "motives" and "consequences" associated with various types of violence.[9] Based on interviews with the children following their viewing of six programs, Liefer and Roberts found that kindergarten children could answer only about one-third of the questions on motives and consequences, 3d graders about half of the questions, and 6th graders about 80 percent. A later study by Collins (1975) found that even by the 5th grade, children mentioned less than half of the motives and consequences cited by adults in subsequent descriptions of violent portrayals. Children apparently focus on the acts themselves.

The most interesting facet of the Liefer and Roberts study was that the children's understanding of motives and consequences was shown to be *independent* of the type of program they had viewed. Fantasy violence, as depicted in cartoon programs or make-believe Westerns, was no better understood by the children than realistic violence in adult crime dramas. In addition, adults proved to be very poor judges of which sequences the children would be

[9] Motives are used here in the sense of perceived intent and reasons for the act (subjective cues) while consequences refer to the outcomes of the act (objective cues). The subjective-objective cue distinction was suggested by Suls and Gutkin (1976).

Table 5-5

Portrayals Regarded as Violence by Children

	Percent describing portrayals as violence	
Age	4-8 yrs.	9-12 yrs.
Roadrunner cartoons (a,h,r)	26	16
Nonanimated clowns fighting (h,r)	47	36
Gunsmoke (r)	68	65
News film of Vietnam war	100	100

a animated h humor r remote setting

Source Snow (1974)

able to understand according to the motives-and-consequences criteria [9]

What are the implications of the Liefer and Roberts study and the more recent studies by Snow and Collins?

1 The fantasy-violence position adopted by many network spokesmen seems—initially—to be supported by the research, in that children, even as young as 4 years, can fairly reliably tell the difference between fantasy content and realistic content

2 This does not mean that fantasy content removes the label of violence Even the most strongly cued fantasy (animated, humorous, and remote from real life, such as *Roadrunner* or *Bugs Bunny* cartoon programs) may be labeled as "violent" by as many as one in four 4 to 8 year olds

3 This labeling is based largely on purely "physical" fantasy cues (as noted) and not on understanding of more sophisticated "cognitive" cues, such as the motives or consequences associated with the violent action

4 Although the studies dealt with television program sequences, there seems to be no compelling reason why these conclusions would differ for violent themes employed in television commercials

5 The most important conclusion is that these research results do not indicate whether fantasy violence has any less effect than realistic violence The results indicate only that various types of violent portrayals may be labeled differently by youngsters according to their initial perceptual responses to the content

The next logical question, obviously, is whether these differential perceptions of violent content make any difference in children's behavior following exposure to various types of violent portrayals

[9]Nonpsychologist adults may also differ with psychologists regarding their concepts of violence In an interesting investigation of the validity of cue-labeling effects, Kane, Joseph, and Tedeschi (1976) asked college students to evaluate procedural descriptions from the classic Berkowitz experiments on aggression One major finding was that "harm-doing behavior" was labeled as "aggressive" only when its perceived motivation was anti-normative "Harm-doing behavior that was either instigated by another person or due to an attack by another person was not labeled as aggressive

Effects of different types of violent portrayals We have identified via the fantasy-cue hypothesis, four different types of violent portrayals on television cartoon violence (with three fantasy cues), make-believe violence (two cues), realistic violence (one cue), and real-life violence The first two types are, or have been, employed in children's commercials

There are at least eight types of *effects* which exposure to various types of violent portrayals may produce These range from direct imitation to direct counter-imitation, with six possibilities in between. To organize these typologies, and to provide a framework for classifying research in the area, a summary table is provided in Table 5-6 Note that four of the possible effects are negative by usual societal standards, while four other effects variables (number 5 and 6) are either neutral or positive

Table 5-6 also identifies two important mediating variables in this effects process the covert cognitive and emotional (arousal) responses to television content which may serve as mental or physiological cues for subsequent overt responses Arousal is a particularly important mediating variable because, as a physiological energizer, it largely determines whether any mentally acquired responses to violence will actually appear as overt behavior Although cognitive labeling and arousal are the two most important mediating variables, a number of other, mainly personal characteristic may also be mediating factors in the behavioral effects of the various types of television violence Of these, we have listed age, because of its obvious relevance to children's research, and a child's past history of reinforcement of aggressive or violent behavior Psychologists generally consider past reinforcement as a root cause of what is commonly known as a predisposition for aggressive or violent behavior in children

With this framework as a guide, we can now examine the two questions most relevant to an assessment of the types of fantasy violence that might be employed in children's commercials First, whether fantasy violence produces negative effects, and second, whether fantasy violence and more realistically violent portrayals produce different effects.

Answers to the first question derive from a number of studies in which television fantasy violence is compared with a control condition of bland or nonviolent television sequences. The following, in

chronological order, are summary results of the major studies which have employed *cartoons* as the fantasy-violence stimulus

- Siegel (1956) found *no statistically significant difference* in frequency of interpersonal assaults in children's play following exposure to a Woody Woodpecker cartoon vs a bland cartoon. Subjects were Stanford University nursery-school children and thus were probably upper-middle class
- Bandura, Ross, and Ross (1963), using the "Bobo doll" measure and *arousing* (frustrating) the children slightly, found a *significant increase* in physical and verbal assaults against the doll following exposure to a televised cartoon-like portrayal of the same behavior by a lady dressed in a cat costume vs no-exposure control. Subjects were again from the Stanford nursery school
- Steuer, Applefield, and Smith (1971) found an *apparent tendency* for increases in interpersonal physical assaults in play following the children's exposure to Saturday morning program excerpts. A majority of the excerpts were violent cartoons, the control excerpts were nonviolent. Subjects were nursery-school children of mixed race and SES scores. Results are tentative since the experiment used only five pairs of children (10 total), three of which showed an apparent increase in aggression while two did not. The measure is also questionable because it depends partly on retaliatory action by the "control" child in each pair.
- Stein and Friedrich (1972) found *equivocal results* following children's exposure to six Batman and six Superman cartoon programs vs neutral programming over a four-week period. Subjects were nursery-school children with mixed SES scores. The results cannot be taken as either clearly favoring or not favoring the fantasy-violence hypothesis
- Heller and Polsky (1976) found *equivocal results* in interpersonal physical aggression following children's exposure to five violent Saturday morning cartoon programs vs five bland children's programs. Subjects were 20 psychiatrically normal but "broken home" children in a Philadelphia boarding institution. Although the cartoon programs produced more aggression than the bland programs, inspection of the data indicates that this was probably not due to imitation, but to significantly higher *arousal* engendered by the cartoon programs, since the children recalled fewer aggressive incidents from the cartoons, yet rated the cartoons as significantly more exciting. This study has other methodological problems, too, which render its findings equivocal

Nonconservative, even biased evaluations of the first four of these studies are widespread. For example, Liebert et al. (1973), cite Siegel's study as showing "somewhat *more*" (original italics) aggression following the violent cartoon when in fact the differences were not statistically significant. Comstock (1976) cites the Bandura et al. results as though cartoon violence and realistic violence led to "similar" levels of aggression, when in fact they did not. Comstock also fails to mention the presence of frustration or arousal in the measurement situation, even though these two facets are clearly mentioned in an earlier review by the same author (Comstock, 1975). Both Liebert et al. and Comstock (1975) cite the Steuer et al. experiment as supporting the violence-aggression hypothesis when the results are tentative at best. Finally, there is the Stein and Friedrich experiment. Liebert et al. cite this study uncritically as supporting the violence-aggression hypothesis, as does Comstock (1975). The Surgeon General's report (1972) correctly points out the possibility of a regression artifact confounding the results, yet concludes that they plausibly support the violence-aggression hypothesis.

As an illustration of how later interpretations of violence research can vary, it is worthwhile to examine the Stein and Friedrich experiment in greater detail. The researchers divided their sample into high and low aggressives based on pre-exposure observations of physical and verbal aggression and a sum measure of the two called "interpersonal aggression" (how one division was derived from three median scores was not stated). The children were then reobserved following exposure to either violent cartoons or neutral programs. The regression artifact phenomenon would predict that the aggression scores of the two groups would, from pre to post, merge toward the overall sample mean—i.e., scores of high aggressives would decline and scores of low aggressives would increase. In the presence of this artifact, the only convincing evidence that the experimental treatments had *any* effect would be if the pre-post changes were directionally *opposite* to the

artifact's "pull," and significantly so. No such changes were observed The low aggressives showed slight increases on all three aggression measures which were entirely in line with regression toward the mean This occurred regardless of violent or neutral exposure, thus clearly indicating no violence effect

The high aggressives turned out to be the critical group on which conclusions were based On the verbal aggression measure, the high aggressives' scores showed slight declines in line with the regression artifact, again regardless of type of exposure On the physical aggression measure, which many would argue is the more serious, the high aggressives' scores either stayed the same (violent cartoons) or declined slightly (neutral programs) but these were not significantly different patterns, i e , no violence effect can be concluded Only on the combined verbal and physical aggression measure did any significant change occur high aggressives' scores in the violent cartoon condition simply *declined significantly less* than their scores in the neutral condition, this is not the same as saying that they *increased significantly more*, yet this is the interpretation that is implied The conservative interpretation, given that regression toward the mean would predict a decline and that the conclusions are based on declines rather than on counter-regression increases, would be no violence effect

Actually, Stein and Friedrich could have gotten around the regression problem by simply dropping the high aggressive — low aggressive split and analyzing the trends for the total sample. Based on their data in table 15, p. 246, the total sample results can be estimated as follows

Table 5-7

Pre-post change scores	Violent cartoons	Neutral programs
Interpersonal aggression (PA + VA below)	015	-.022
Physical aggression	.010	-.013
Verbal aggression	-.005	-.010

The differences between the violent cartoon and neutral program groups are, respectively, .037, 023, and .005 scale points Given that a difference of 104 scale points was required for the 05 level of significance, almost three times the magnitude of the largest difference here, Stein and Friedrich's overall results would almost certainly be nonsignificant

In summary, it is clear that cartoon violence can instigate aggression in children, although this effect is by no means a universal outcome nor an unequivocal one In fact, the findings of most studies are consistent with the interpretation that aggression occurs only if the children's arousal levels are raised (either by the cartoons or by other subsequent means, such as frustration during play). Moreover, the effect of the cartoon violence is mainly to energize preexisting aggressive responses, rather than to stimulate imitation of new responses (this phenomenon is seen especially in those studies which employ pre-measures of physical aggression and then use post-measures of the *same* behavior to gauge the effects) The children may have learned these preexisting responses from previous cartoons, from other television programs, from personal experience, or, possibly, even from commercials (although the latter seems unlikely, given the infrequency of commercials of this type) We shall return later to the arousal aspect of violent portrayals in commercials.

A second question concerns the matter of whether fantasy violence and more realistic violent portrayals produce different effects (This question deals with the differences between the stimulus-content variables in the left-hand column of Table 5-6) Various studies have employed various comparisons in regard to this question; the three studies cited below all involve cartoon violence and at least one other more realistic form of violence:

- Bandura, Ross, and Ross (1963) found that depictions of violence by a cartoon model and by a filmed human model produced the *same level* of subsequent "Bobo doll" aggression by the children (A *live* human model produced significantly more aggression than the cartoon model, but the difference between the live and filmed models was not significant)
- Liefer and Roberts (1972) found the *same level of aggression* regardless of whether the violence

portrayals were in cartoon, make-believe, or realistic programs However, the researchers' measure of aggression, which involved "projective" picture choices rather than actual interpersonal aggression, was somewhat indirect

- McCarthy et al (1975), in a longitudinal field study, found that children who lacked favorable real-life experiences turned to television, including violent programs, as an apparent fulfillment mechanism Their viewing of violent programming was also associated with fighting at school and juvenile delinquency records. Among these children, there were *no differences* in aggressive behavior between those who characteristically watched violent cartoon or make-believe programs and those who watched more realistic programs containing violence.

Three other experiments are worth mentioning. Two of these compared realistic *acted* violence with *real-life* violence

- Feshback (1972) showed a film of a real-life civil riot to two groups of 9 to 11 year olds One group was told it was a Hollywood movie, the other was told the truth Compared with a third control group, which did not see the film, the "real" group engaged in significantly *more* interpersonal aggression, and the "movie" group in significantly *less* interpersonal aggression, subsequent to the film These results have been interpreted as support for a fantasy violence-catharsis hypothesis The results would not be consistent with a differential arousal hypothesis, unless it could be shown that the "movie" idea produced "de-arousing," perhaps skeptical reactions among the children
- Noble (1973) found similar results after showing a war film documentary and an "artistically produced" fictional war film to 6 to 7 year olds Although there was no control condition, the real-life portrayal produced *more* destructive and *less* constructive play than the fictional portrayal. Since the content differed between the films, this result would be consistent with a differential arousal interpretation

Both studies imply that realistic acted violence (but *not* depictions of real violence) may have a pacifying effect However, this effect might better be interpreted as *indifference*, as is shown by a third experiment

- Drabman and Thomas (1976) reported the results of an experiment in which one group of children individually watched realistic violence (a TV detective show excerpt) while another (control) group were shown an exciting but nonviolent baseball sequence After exposure, the children were led to believe that a fight was breaking out between two children in another room The children exposed to the violent film took a significantly longer time to summon help, thus suggesting that exposure to televised fantasy violence either increased their tolerance o produced indifference toward real violence

Thus, the answer to the fantasy violence versus realistic violence question is complex On the one hand, there is no clear evidence that highly fantastic violence (cartoons) produces any more aggression than moderately fantastic violence (make-believe) or even less fantastic violence (realistic but acted) On the other hand, none of these levels of portrayed violence seem to produce as much aggression as real-life violence

It is possible that arousal, rather than any blind learning or imitation of violent content, may be the critical factor. Such a theory was advanced as early as 1968 by Zillman (who, in turn, based his theory on a theory of drive and performance proposed by psychologist Clark Hull). The theory, which has received extensive empirical support in the work of Zillman and his colleagues, postulates that people will perform whatever response is salient or appropriate to them in a given situation, provided they are sufficiently aroused or energized A notable feature of the theory is that the arousal may derive from *any* excitational event That is, an exciting sports program, a loud or frustrating commercial interruption, conceivably an exciting commercial, or even a video failure could have the same effect of arousal as a violent television sequence, if these events elicited equivalent degrees of emotional excitation

None of the major studies on television violence and its effects on children is immune from the criticism that arousal of preexisting responses, rather than the learning of new responses, could have produced the observed effects For the types of violence portrayed occasionally in *commercials*, and also the

types portrayed most frequently in children's programs, there is simply no clear evidence of "blind" imitation. In the few children's studies in which aggression has occurred following exposure to violent content, there has not been adequate examination of the possibility that these effects were due to arousal of "normal," or preexisting responses, rather than to imitation of the violent content.

This is not to say that violent behavior is never imitated. However, it mainly seems to be imitated (a) when the televised behavior itself is highly novel *and* arousing—e.g., skyjacking, murder by incineration, or an explicit depiction of a criminal technique, (b) when the imitator's response is compatible with his or her existing repertoire of behavior—e.g., a history of deviant or criminal behavior, and, most importantly, (c) when the imitator has something directly to gain from performing the behavior—e.g., the esteem of peers or monetary gain.

A second feature of Zillman's theory is that arousal may not only stem from any source, it may also energize *any* appropriate response. This might explain the paradoxical (and little publicized) finding that exposure to television violence appeared to increase *prosocial* behavior among higher social-class children (Stein and Friedrich, 1972). An experiment by Liebert and Baron (1972) in the Surgeon General's Report claims to disprove this interesting hypothesis, but the researchers overlooked some important facets in drawing their conclusions. In the Liebert and Baron experiment, children exposed to a sequence from *The Untouchables* demonstrated a significant increase in the duration of "hurting" responses during a mock interpersonal learning task immediately after the television sequence but exhibited no changes in the duration of "helping" responses during the same learning task. What Liebert and Baron overlooked was that the children exposed to *The Untouchables* exhibited an increase in the *total* of *both* hurting and helping responses. Their behavior apparently depended on which of the two responses, hurting or helping, the children perceived to be the most appropriate.[11] For example, older girls in the experiment demonstrated a very large increase in *helping* responses following the televised violence.

The experiment by Drabman and Thomas, cited earlier, could be similarly interpreted. In this study, children who had watched a violent television episode were notably slower to summon help for other children getting into a fight. This finding could conceivably be explained as an arousal effect, rather than an indifference effect, if the seemingly indifferent children were actually motivated to *avoid* intervention and see the fighting continue.[12] These possibilities are raised not to advocate violence, of course, but to exemplify the fact that the interpretation of violence studies is not as clear-cut as it might often seem. In particular, the effects of arousal versus imitation need to be more clearly distinguished before violent content (especially in fantasy form) can be indicted as something other than mere excitation.

Commercials and violent programs. An experiment of great interest to the general debate about television violence—and certainly of great interest here, since it involves commercials—was recently reported by Worchel, Hardy, and Hurley (1976). The results of this study suggest that violence in movies will produce aggression in viewers *only if* the movies are accompanied by commercials, as on television. The researchers used three full-length movies which were selected to represent real violence (*Attica*, an American Bar Association documentary which included actual footage from the Attica prison riot), realistic, acted violence (*The Wild One*, the Marlon Brando motorcycle picture), and a nonviolent control film (*The Mouse That Roared*, a comedy adventure starring Peter Sellers). Each film was shown to a different group of randomly selected college students, with half of each group seeing it without commercial interruptions, the other half with commercials.

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[11] Note that the two responses were clearly set up as competitive ("you can push only one button"), thus establishing a total response "pool" from which the children had to choose the more appropriate of the two on each trial. Liebert and Baron tried to disclaim this total response view (which would support Zillman's generalized-arousal interpretation) by stating that the help and hurt scores "were not merely alternate measures of the same phenomenon." However, the correlation between the two scores ($-.24$) was negative and significant ($p < .05$) and does not support their claim that the two responses are independent.

[12] In one of the few studies to employ relevant measures of arousal (measured by increases in arousal from a neutral content baseline), Cline et al. (1973) found that children who were heavy viewers of television exhibited significantly less arousal from a realistic portrayal of filmed violence (a brutal boxing match) than children who were light viewers. Had Drabman and Thomas divided their sample into heavy and light viewers, the arousal-indifference hypothesis could have been more adequately tested. Better still, of course, would have been a direct measure of arousal in the experiment as well as an examination of what each child perceived as the normal or normative response in the experimental situation.

In adopting this design, the investigators argued that most previous experiments were atypical in that they employed short film segments, which usually portrayed violence out of context, rather than full-length films which contained contexts other than violence. In addition, they noted that films shown without commercials were atypical of usual television exposure. The researchers reasoned that under the conditions of their experiment, two competing hypotheses could be tested. The first, following Singer (1971), was that commercials might "break the spell" of violence sequences in the films and thus decrease aggressive tendencies of the subjects following viewing. The alternative prediction, following Berkowitz (1962) was that the commercial interruptions might constitute a source of frustration, since they ostensibly block the "ongoing drive" of the viewer to see the movie. The combination of frustration plus the aggressive cues in the violent movies should increase the aggressive tendencies of the subjects following viewing.

Worchel et al. preferred the Berkowitz prediction of increased aggression following the violent movies shown *with* commercials. They made no prediction regarding the relative effects of real (*Attica*) versus acted (*Wild One*) violence because of their concern that the depiction of the unpleasant real-life consequences of the violence in *Attica* might introduce an inhibiting factor in the subjects' subsequent aggression.

The main measure of aggression in the experiment consisted of the subjects' ratings of how willing they would be to hire the employability of the research assistants who had run the films. The assistant deliberately made three blunders, two prior to and one following the film, which would provide the subjects with reasons for criticizing his competence as a measure of aggression). The results from this measure are shown in Figure 5-8.

The findings are consistent with the investigators' predictions. Based on the "assistant rating" measure of aggression, the violent films shown with commercials apparently produced *significantly more* aggression than the same films shown without commercials. The violent films with commercials also produced significantly more aggression than the non-violent film with or without commercials. No significant differences in the aggression ratings were found between the acted and real violence.

Worchel et al. did not take direct physiological measures of arousal during the experiment. However, after the viewing, the subjects rated the films as fairly equally involving and interesting (the ratings of their violence and humor contents naturally differed). Subjects who viewed the films with commercials also rated themselves as feeling slightly (though significantly) more tense and angry after the viewing, but also—paradoxically—more happy and rested. The latter two ratings pose problems for the frustration hypothesis, especially in that the investigators speculate that the commercials could have led simultaneously to both frustration and relief.

There are other problems with this interesting study.

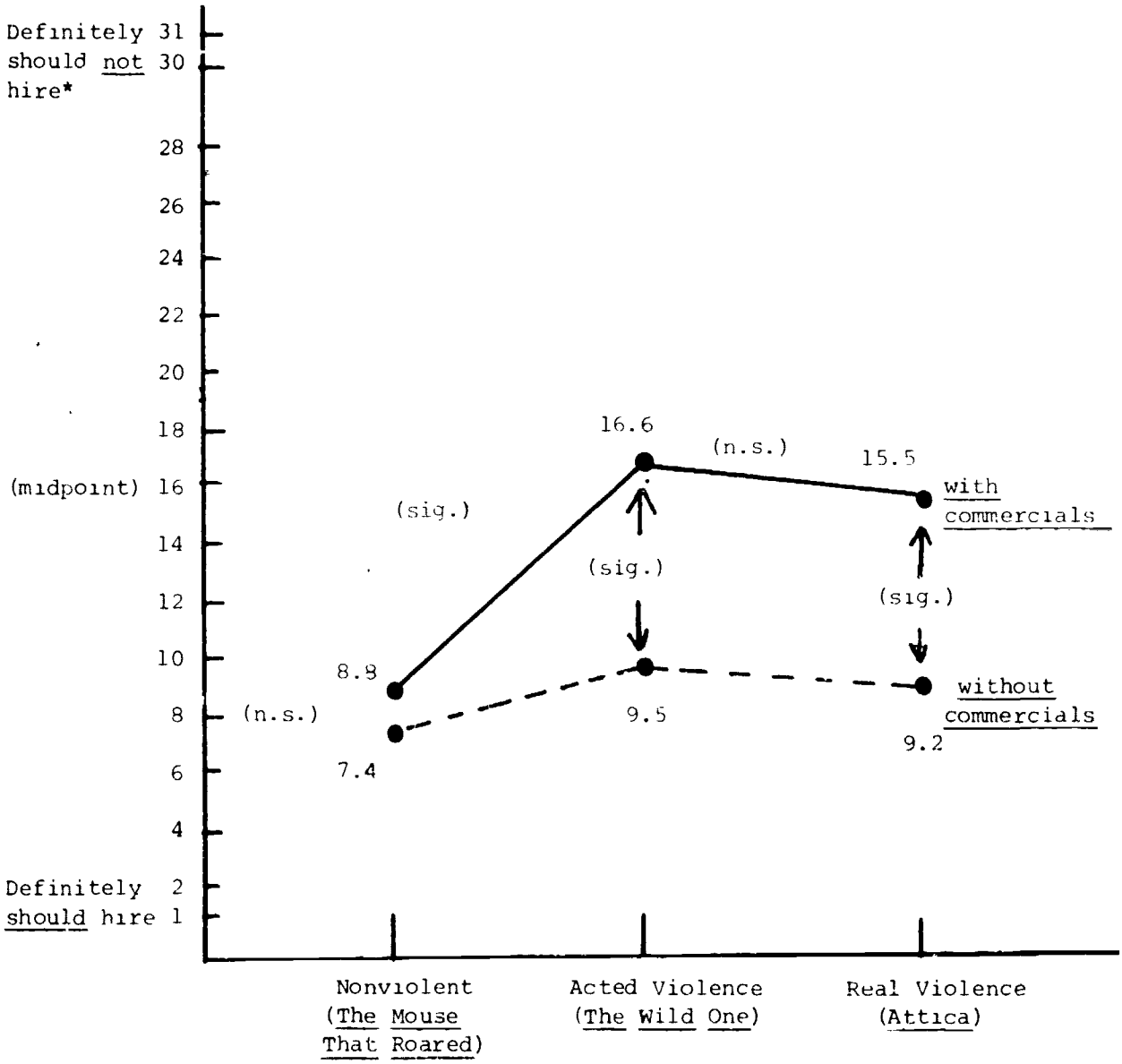
1. The commercials were actually public service announcements and are described by the authors as "fairly entertaining." Moreover, according to the methodological description in the study, the commercials (10 commercials arranged in four 2-minute blocks) were placed so as "to *avoid* breaking scene continuity" (italics added). This is rather atypical of television, in which commercials are often placed at the peak of an exciting scene, with the resolution left to follow the commercial break.

2. It is possible that the placement of PSA's in violent films may have had a *pacifying* effect or, more precisely, a *neutralizing* effect. Look again at the results in Figure 8-1. One would expect "aggression" to be indexed by a tendency *not* to want to hire the assistant. However none of the (mean) ratings tend in this "aggressive" direction. The dominant response in four of the six experimental conditions was in fact to *hire* the assistant. In the two remaining conditions—the two violent films with commercials—the responses were essentially neutral. The ratings indicated an indifference as to whether the assistant should or should not be hired (the midpoint of the scale was 16, and the two means in question were 16.6 for *The Wild One* and 15.5 for *Attica*).

   It would be difficult to interpret such responses as aggressive. An alternative interpretation, based on the arousal theory, might be that the dominant or "appropriate" response in the subjects' situation was to comply with the experimenters' apparent judgment in *already* having hired the assistant or, more likely, to give a sympathetic response to a

Figure 5-8

Subjects' Ratings of the Employability of the Research Assistant



*The subjects were asked to rate on a 31-point scale their extent of agreement with the statement, "The assistant would make a very good experimenter and should definitely be hired for the job." A rating of 1 equalled "strongly agree," 31 equalled "strongly disagree." A rating of 16, the midpoint, presumably indicated a neutral opinion on the question.

Source Worchel, et al. (1976)

fellow student whom, they were told, was one of three candidates for a single job for the next academic year (the assistant made three blunders, but he was not directly offensive to the viewers in any way). It is possible that the commercials (which were, after all, "entertaining" public service announcements which apparently did not interrupt the continuity of any scenes within the movies), may have "toned down" the otherwise arousing properties of the violent films, thus leading to *less energization* of the appropriate response by the subject. Of course, Zillman's arousal theory cannot be correctly applied unless there is actual physiological measurement of arousal, and arousal decline, during the films. Nevertheless, this is a possible interpretation, and one which raises questions regarding the Worchel et al conclusion that commercials exacerbate violence in films.

3. A minor point is that the movies were projected on a film screen rather than on a television monitor and were shown in an experimental rather than an in-home setting. These factors might have inflated the overall degree of arousal and, therefore, the "aggression" expressed by the subjects.

4. Another minor point is that the subjects were college students, making the results only indirectly applicable to children (all other studies cited in this chapter had children as subjects). The findings should therefore be regarded as tentative. However, the Worchel et al findings are certainly important enough to warrant replicative research with better controls and with a more direct measure of aggression.

The potential of commercials to interact with violent programs may depend on where the commercials are placed. Two of the children's studies cited earlier actually used commercials as separation devices or filler material. In one experiment (Collins, 1975), the commercials were deliberately inserted to separate violent intent from the violence itself, and then again to separate the violence from its consequences. These separations, which might have been frustrating quite apart from their intended purpose, produced more aggression than no separation—but only among the youngest children in the study (3d graders as opposed to 6th and 10th graders). The study employed a rather indirect measure of aggression—the projective picture-choice measure.

In the other experiment (Liebert and Baron, 1972), commercials preceded and followed a particularly violent 3½-minute segment from *The Untouchables*. As noted earlier, it was not clear that the violence (rather than arousal) produced the observed aggressive effects (the "hurting-helping" measure), but it remains possible that the commercials frustrated the children's desire to see more of an exciting sequence, thus increasing arousal in the children. Alternatively, if the Worchel et al hypothesis is correct, the aggression may not have occurred if the violent scenes had not been accompanied by commercials. A noncommercial control condition would be needed to settle these interesting questions.

The possiblity of commercial-program interaction is further complicated by Zillman's own work on arousal theory. One study (Zillman, Hoyt, and Day, 1974) suggested that brief exposure to a bland film clip following a violent film clip can reduce aggression. Bland film clips might simulate the effects of commercials, although the clip in this study was longer (7½ minutes) than normal commercial breaks. In the same experiment, the bland film clip did not dissipate the (higher) arousal and aggression produced by an *erotic* film clip, suggesting that extremely novel or arousing content might be hard to overcome, especially by a break of relatively short duration.[13] The picture therefore remains complicated and requires further research.

A number of further considerations could be raised, such as the relative effects of different types of commercials (e.g., violent ones) in violent programs, or the effects of commercials in highly arousing but nonviolent programs (e.g., chase scenes or suspense scenes, which occur in many children's programs).

Another consideration is that violent programs may decrease the effectiveness of commercials

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[13] It should be noted that in all of Zillman's experiments the subjects were *provoked* prior to the films by an experimental confederate who later became the potential target for aggressive responses. Most of the "positive" results of experiments with violence have been obtained only with some degree of extra content provocation (e.g., Bandura mildly frustrated the children before allowing them to play with the Bobo dolls). The value of Zillman's experiments is that they demonstrate reduction or prevention of aggression *despite* provocation. This finding represents a compelling demonstration of Zillman's theory that arousal, not violence, is the immediate causal factor in aggression.

placed in or adjacent to the violent material (*Advertising Age*, October 18, 1976). Advertisers are increasingly raising this question partly because some television viewers are claiming to boycott products advertised on excessively violent programs (according to a recent J. Walter Thompson survey, about 1.4 percent of all viewers and 2.7 percent of college educated viewers). Advertisers are also concerned that commercials may be frustrating to viewers when they interrupt an exciting plot, thereby leading to viewer resentment of the commercials. On the other hand, there is the possibility that exciting programs may heighten viewer attention and perhaps carry over the high viewer involvement to the commercial. In this regard, advertisers also wonder whether such involvement might "swamp" the commercials, or at least the initial one or two in a series. The Worchel et al. study found no difference in subjects' recall of the number of commercials shown during violent versus nonviolent films. However, advertisers are likely to want evidence of effectiveness beyond a recall of the number of commercials. The question of a program's effects on commercials remains an interesting corollary to the violence issue, from the perspective of advertisers as well as regulators.

Unsafe acts in safety messages. The unsafe acts issue is not unrelated to the violence issue. With both, the fear is that portrayals of dangerous behavior may be imitated by children. The fear might even be more salient for unsafe acts, since the objective likelihood (and probably the subjective likelihood perceived by parents) of a child being hurt accidentially is far greater than that of a child being hurt in or even involved in acts of violence. With portrayals of violence, the central issue is "Does this do any harm?" With portrayals of unsafe acts in safety messages, the central question is "Does this do any good?"

In the typical safety message, safe behavior is portrayed as rewarding and unsafe behavior is portrayed as punishing or detrimental in its consequences. However, a long history of research on children's imitative behavior has demonstrated that punishment generally has only a temporary effect. In fact, punished behavior is learned just as readily as rewarded behavior. Also, whether a child actually *imitates* an observed behavior depends not on the reward or punishment of the behavior of the *model* but rather on the expected *direct* reward or punishment of the child for the imitative behavior. (See, for example, the representative experiments by Walters and Parke, 1964, and Bandura, 1965.) In other words, children will learn and imitate even those behaviors which are portrayed as unsafe or dangerous, if they themselves evaluate the behaviors as having some direct, functional value for them (Bandura, 1972).

Two experiments by Atkin (1975c) support this contention. In one experiment, children were shown a PSA which pointed out the danger of sugar in causing cavities. These children were then compared with a control group of children who did not see the commercial. For the exposed group, the antisugar PSA produced significantly more negative answers to the item "sugar is good for you" as well as significantly greater expression of concern about cavities. However, there was *no difference* in the two groups' stated intentions to eat fewer sugary foods. Evidently, the direct pleasurable consequences of eating sweets were perceived by the children as more immediately relevant than the portrayed consequences of cavities.

In the second experiment, children were exposed to alternative versions of an aspirin commercial. The "safety" version contained the message, "But remember, only use _____ when you really need it—and don't take too many tablets." The safety message had *no impact* on the children's stated intentions to use the product, nor on the number of tablets they would take. Atkin points out, correctly, that the one-line warning may not have been salient to the children (recall of the warning was not measured). It is conceivable that repeated exposures to such a warning or to negatively portrayed consequences of a behavior might influence children's own perceptions of the actual behavior and its consequences. This possibility remains untested because both the Bandura and the Atkin experiments employed only single exposures. Thus, the portrayed consequences would be weakly registered by the children in comparison with their previously established perceptions.

A third experiment by Atkin (1975b) provides some support for this idea. In this experiment, one group of children was shown an antilittering PSA, another control group did not see the commercial. Many children were irritated by the commercial, Atkin reports, because they had seen it frequently on television prior to the experiment. Thus, for many of the children, the commercial served as a "reminder." The PSA was apparently effective. When

given a candy bar after the commercial, only 2 percent of the exposed group littered the wrapper, versus 11 percent of the nonexposed group—a significant difference, even though littering was evidently a low-frequency behavior for all the children.

Stronger evidence would obviously be needed in order to make a case for the effectiveness of repetition. In particular, more serious types of unsafe acts should be studied, such as crossing streets carelessly or opening strange household containers. Special attention should be given to acts which are not only unsafe but attractive (rewarding) to children, such as "stunt-riding" with bicycles or playing with matches. These safety commercials would have to be carefully pretested, of course, to ensure that the effectiveness of the portrayal, or the repetition of it, actually overrides any prior attractions the behavior may have for children.

Unfortunately, such testing would involve an intrinsic hazard, in that evidence of the effectiveness of a safety commercial would require that the unsafe behavior be performed as a baseline (or by a control group of children), so that a reduction effect could be shown in the experimental group. In many cases, even a surrogate "prebehavioral" measure, such as a child's knowledge or beliefs about the harmful behavior, carries its own dangers. The Bandura line of research (e.g., Masters, Gordon, and Clark, 1976) has shown that even a single exposure to a portrayal of unsafe behavior may be remembered by children for substantial periods (two months or more) and may be imitated later. And as Wolf (1973) has noted, portrayals of particularly deviant behavior may receive above-average attention and memorability.

In short, pending the devising of assuredly harmless testing procedures, safety commercials which include portrayals of unsafe acts are probably best left out of children's television programing. Indirect (televised) exposure of children to portrayed consequences of unsafe acts is likely to do more harm than good. For the time being, safety training can be handled more safely in the home or school, where consequences of unsafe acts can be more *directly* and more frequently demonstrated to children.

SUMMARY AND NEEDED RESEARCH

Fantasy violence. The type of violence employed in children's commercials (and in most children's programs) is almost always in the fantasy category. The impact of the violent portrayals varies according to the number of fantasy cues present in the portrayal: Cartoon violence generally has three cues to indicate fantasy (animation, humor, and a remote setting); make-believe violence generally has two cues (humor and a remote setting); and realistic, acted violence generally has only one cue (the viewer's knowledge that the portrayal is fictional). Real-life violence (e.g., footage of actual violence, as in newsfilms or documentaries) has, of course, no cues to suggest fantasy.

There is evidence from one study that most children as young as 4 years can distinguish these four levels of violence. However, about one-quarter of 4 to 8 year olds define cartoon violence as depictions of violence *per se*; about one-half of this age group also perceive make-believe violence in this way, and over one-half of 4 to 8 year olds see realistic (acted) violence as violence. Children appear to make these distinctions solely on the basis of the physical fantasy cues; there is no support for the idea that children, especially young children, can differentiate types of violence on a more cognitive or rational basis—for example, by a justification of the motives for the violent behavior or of the goodness of its consequences.

The key question is whether the different degrees of fantasy in the various forms of television violence make any difference in terms of effects on children—and particularly in terms of imitative aggression following viewing. This question is especially important for evaluating the effects of children's commercials, since the type of violence used in the commercials is almost invariably of a fantasy nature (cartoon, make-believe, and occasionally realistic) and is usually employed for a humorous or dramatic effect.

The best available evidence suggests that less than about 5 percent of children's commercials depict any type of violence. However, both realistic and make-believe violence do appear in program promotions during children's viewing hours. Similarly, make-believe violence (sometimes) and cartoon violence (frequently) appear in about half of children's programs. The question of the impact of fantasy versus realistic and real violence is therefore worth examining in detail, aside from its specific application to children's commercials.

Research on television violence involves many variables and multiple effects. Accordingly, a classificatory framework was developed (Table 5-6) to aid the assessment of effects and to serve as a possible guide for future research. Available studies indicate, first, that there is not much difference in the effects produced by different types of *fantasy* violence. That is, cartoon, make-believe, and realistic, acted violence seem to function similarly as stimuli for children. Secondly, although the studies are few in number, they generally show that all forms of fantasy violence have significantly weaker effects on children than real portrayals of violence.

What are these effects? There is actually very little evidence of *direct imitation* of television violence by children. There *is* evidence that fantasy violence, as well as portrayals of real-life violence, can *instigate or energize* previously learned aggressive responses (e.g., interpersonal assaults during children's play). It is by no means clear, however, that the violence in a portrayal is solely responsible for this instigational effect. Rather, the evidence suggests (1) that *any* exciting material can be instigational of subsequent aggressive behavior; and (2) that it is the *effect of excitation* rather than the portrayal of violence which instigates or energizes any subsequent aggression in children. Moreover, the type of "violent" behavior demonstrated in experiments with children is, as has been noted by Wells (1969, 1971), plausibly interpretable as reflecting either novel play activities or, more typically, a *lowering* of previously learned play inhibitions, rather than as an increase in socially threatening aggression. In short, "cold" imitation of violence by children is extremely rare, and the very occasional evidence of direct, imitative associations between television violence and aggressive behavior has been limited to extremely novel and violent acts by people (usually teenagers or adults) for whom deviant behavior is already an established pattern.

The instigational effect means, in the short-term, that exposure to violent portrayals could be dangerous to a child *if* shortly after the exposure (within 15 or 30 minutes), he or she happens to be in a situation which calls for interpersonal aggression as an *appropriate* response—e.g., an argument or fight between siblings or peers. However, this same instigational effect could be produced by *other* exciting but nonviolent television content or by any other excitational source, including, ironically enough, video failure or a parent turning the set off (Baer, 1962; see also Wells' 1973 replication of Feshbach and Singer's experiment in which withdrawal of a violent diet of television fare appeared to increase aggression). Thus, in the long term, there is no convincing causal evidence of any cumulative instigational effects, such as more aggressive or violent dispositions in children. In fact, Gerbner and Gross (1976) have suggested that passivity is a more likely long-term result of heavy viewing of television violence. Any instigation of deviant behavior by children seems, therefore, to be confined to short-term circumstantial effects.

All of this implies that an indictment of fantasy violence in children's programing must rest mainly on a very slight *risk* that the violent portrayal may be imitated and a somewhat greater risk that the violence may have a short-term instigational effect when situational circumstances suggest aggression as an appropriate response. In the first case, we should perhaps weigh the remote risk of imitation against the much larger (but usually unacknowledged) probability that the fantasy violence in children's television, though it does not lead to "catharsis," provides plenty of fun and entertainment for children. This probability seems self-evident; otherwise, children would not spend so much time watching cartoons "saturated" with fantasy violence, nor action-adventure programs which frequently contain some make-believe or realistic violence.

A careful review of the evidence tends to confirm Kaplan and Singer's conclusion (in press) that the debate about fantasy violence has often been slanted by academic researchers; that the evidence does not warrant the strong conclusions warranted by many reviewers; and that television violence is frequently held up as a scapegoat because it reminds us that the real causes of violence are learned socially and culturally.

More particularly, it is unlikely that children's *commercials* can be indicted as a cause of violence or aggression in children when (1) the types of violence used in the commercials are rarely imitable, and (2) the duration of the violence is much too short to suggest that commercials could have an instigational effect on the viewers. The prohibition of violent portrayals in children's commercials therefore represents a value judgment about risk, rather than a policy based on any scientific demonstration of actual harm to children.

Nevertheless, there are many improvements in research methods that could lead to more definitive conclusions regarding television violence in both the programs and the commercials made for children. Among them:

1. There is an immediate need for better descriptions of violent portrayals in children's television, and especially of the physical stimulus properties of violence, since these are most readily understood by children. Future studies should systematically vary the dimensions of animation (and "humanness"), of humor, of remoteness of settings, and of other fictional cues in violent portrayals in order to determine how these cues interact in affecting children's responses to the violence.

2. There is a need for better measurement of possible mediating variables in the responses of children to violent portrayals. Most notably, there should be improved measures of the child's cognitive labeling of violent content and of the arousal properties of this content. Rarely have children been asked to describe the stimuli they are presumably reacting to, and usually any mediating effects have been merely assumed by researchers rather than directly tested. Similarly, direct physiological measurements of arousal should be made. This is essential if the overall excitational and instigational effects of violent programs are to be separated from any instigational or cognitive effects directly associated with specific violent events in a program.

3. There is a need to identify a wider range of possible effects of violent portrayals and to provide better measurements of these effects. For obvious reasons, many so-called measures of aggression are weak surrogates for actual physical interpersonal aggression. The questionable validity of such measures has led many to discount the evidence based on these studies. In laboratory experiments, measures in which interpersonal aggression is realistically simulated should provide the highest validity and would avoid the problem of direct aggression measures being confounded by the degree of retaliatory action shown by persons other than the experimental subject. Field study measures are generally more convincing to policymakers than are laboratory experiments, in that the measurement criteria are clearer. However, inter-observer reliability checks must be employed and the observations should be blind as to treatment conditions. These precautions have not always been followed.

Most important, though, is the need to employ a wider range of measures. One study has moved in this direction in examining "tolerance" effects. More study is needed of the distinction between pacification and tolerance and, indeed, of the eight or so different effects that violence may have, some of them harmless or even constructive. An unbiased program of research must weigh any beneficial effects of violence—e.g., entertainment, in which viewing but not aggression may be reinforced—against socially undesirable outcomes, assigning probabilities and evaluative weights to each.

Commercials in violent programs. One recent experiment suggested that violent programs may produce aggression only if they are shown with (i.e., interrupted by) commercials. The study has certain limitations which left the findings somewhat ambiguous, but the topic obviously deserves further investigation. Also important is the contrary possibility: that commercials may provide a socially valuable function by toning down or defusing excitement generated by violent or otherwise highly arousing scenes in television shows. Given the current ethical controversy over commercial sponsorship of violent programs—and also the empirical possibilities that programs may affect commercials and vice versa—this issue should attract the interest of advertisers as well as academic researchers and policymakers.

Unsafe acts in safety messages. The danger with unsafe acts is that their depiction may lead to hazardous imitation by children. The evidence indicates that illustrations of unsafe behavior, even when punished or admonished in the commercial message, may make that behavior more salient and possibly more attractive to children than it would normally be. The crucial controlling factor is not what happens to the model portrayed in the safety message, but how the young viewer perceives the direct personal consequences of the behavior if he or she were to imitate it. PSA's on safety are generally produced precisely because the unsafe behavior is so directly attractive to children. Only after repeated exposure to such messages might the portrayed consequences favorably alter a child's direct experience and judgment; and even then, such an effect is by no means assured. Present indications are that safety commercials should emphasize only the rewarding consequences of safe behavior, without showing unsafe behavior. Prevention of unsafe acts should be left to direct in-home or in-school training and not to television.

Chapter 6

THE IMPACT OF PROPRIETARY MEDICINE ADVERTISING ON CHILDREN

In a 1975 petition before the FCC, the Attorneys General of 19 states requested a ban on medicine advertising on television between 6 a.m. and 9 p.m. Although the petition was rejected by the FCC in 1976, this document and others filed in support of and in opposition to it, provide a useful summary of the questions at issue. The Attorneys General stated that children are "particularly impressionable and susceptible to the influences of television advertising," and that medicine commercials aim to create "receptive attitudes towards pill taking" and to "present drugs as the cure-all to the tension and problems of everyday life." The petition suggested that the long-term effect of such advertising would be to create a "new and artificial demand for drugs." It therefore requested that such commercials be restricted "to an audience which is equipped to evaluate and digest sophisticated drug advertising."

Another petition in support of the Attorneys General request was subsequently filed with the FCC by a public interest group, the Council on Children, Media, and Merchandising (1975). The Council asserted that "children who are repeatedly exposed to OTC drug advertising[1]—where adult role models are 'rewarded' for taking medication—are likely to learn a behavioral response from such ads and to act on that learned behavior at some future time—perhaps to their detriment."

Arguments against these petitions were set forth in a communication to the FCC by the Proprietary Association (1975), a nonprofit trade association of OTC drug manufacturers. The association contended that medical and scientific evidence does not support a link between OTC drug advertising and drug abuse, misuse, or overuse. The Proprietary Association cited a report which it commissioned by Oxtoby-Smith, Inc. (1974) regarding youth and illicit drugs. This review of the literature found no relationship between proprietary drug advertising and incidence of drug abuse. However, the report did not address the impact of proprietary medicine advertising on *children*, since the studies reviewed dealt with teenagers. Furthermore, the report focused on drug abuse, in the sense of illicit drug use, and did not respond to the broader concerns regarding the development of a general receptivity to proprietary medicine.

In their petition, the Proprietary Association also argued that OTC drug advertising serves as a useful purpose in that "self-medication is an accepted and essential element in the scheme of health care in this nation." It is the consumer who must judge "whether or not the symptoms are sufficiently discomforting to warrant the use of self-medication." In addition, the Association pointed out that "while it is true that young children do not possess the requisite experience and judgment to properly evaluate OTC medicine advertising or to make judicious use of the products themselves, this same statement could be made of any advertising not specifically directed to children."

CURRENT REGULATION

Television advertising of proprietary medicines on "children's programs" is prohibited by the NAB code:

> Nonprescription medicine, regardless of how taken or administered, shall not be advertised in or adjacent to programs initially designed primarily for children under 12 years of age.

Similar provisions exist in the Children's Advertising Guidelines issued by the NAD:

> Medications, drugs and supplemental vitamins (liquid or pills) should not be advertised to children.

The NAB guidelines apply to programs specifically designed for children—that is, those shows which are concentrated on Saturday and Sunday mornings. Most children's viewing, however,

[1] In this chapter, we use the terms nonprescription medicine, proprietary medicine, and OTC (over-the-counter) drugs interchangeably.

occurs during late afternoon and early evening The NAD guidelines pertain to advertising in children's programs and programs in which "audience patterns typically contain more than 50 percent children" or to advertising which is "clearly addressed to children 11 and under"

INCIDENCE

Although the existing self-regulatory codes prohibit OTC drug advertising on programs designed for children, children are nevertheless exposed to such advertising Approximately 85 percent of all children's viewing is of nonchildren's programs (Nielsen, 1975) Among the top 15 shows viewed by children, only three are broadcast in time periods covered by the NAB children's codes.[2]

The Attorneys General petition asserted that "in the first six months of 1974, one out of eight television commercials was devoted to drugs." The petition by the Council on Children, Media, and Merchandising further estimated that children see about 1,000 such commercials each year.

These figures would have to be substantiated, but they do provide at least a rough estimate of the incidence of children's exposure to OTC drug advertising. The question, then, is whether these commercials serve a positive function as a source of knowledge about illness and medicines, or a negative function as a conditioning agent which fosters receptivity to medicines and heightens demand for their use.

RESEARCH EVIDENCE

There is little systematic research evidence on the effects of medicine advertising on children. Most research has focused on teenagers, rather than children, and has been concerned with illicit drug use, rather than with the use of proprietary medicines. Moreover, existing research has generally sought to document the harmful effects of drug advertising and has ignored any potentially beneficial effects.

There also is no useful conceptual framework concerning OTC drug advertising and its effects on children The tendency has been to assume a simple cause-and-effect relationship, although other sources of information and attitudes—parents, peers, siblings, and teachers—work in conjunction with television advertising Our analysis will seek to determine the relative effects of these several socializing agents on the child's conceptions of medicine, as well as the function of such variables as the child's age, medical history, parent-child interaction style, and family background However, the limited nature of the available evidence will not allow us to be very definitive Figure 6-1 illustrates the analytic framework for our examination of OTC drug advertising's role in the beliefs, attitudes, intentions, and actual medicine use of children.

Beliefs and attitudes Atkin (1975e) examined the relationship between children's "medicine advertising exposure"[3] and beliefs about medicine and its efficacy. Atkin's sample consisted of 256 children (5th, 6th, and 7th graders) selected from schools in urban, suburban, and small town areas in Michigan. His results may be summarized in terms of the following advertising exposure-belief relationships, all of which are based on sixth-order partial correlations. (The results should be interpreted as tentative, given the order of magnitude of the correlations.)

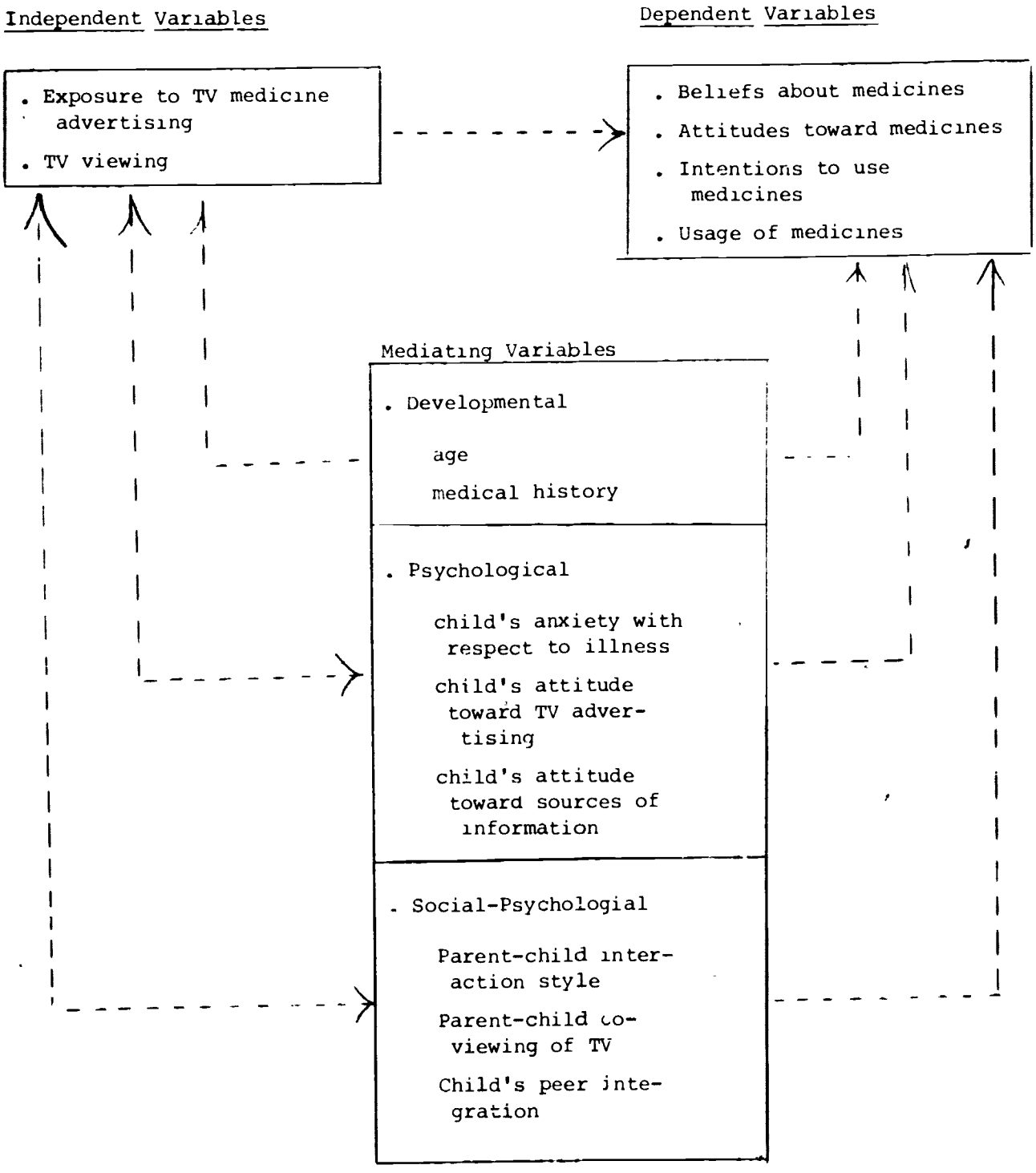
- *Perceptions of reality.* Children with high exposure to medicine advertising perceive that people are more often sick ($r = .14$) and that they more often take medicine (.14).
- *Belief in medicine.* High exposure to medicine advertising correlates with the child's belief in the quickness of relief after taking medicine (.10).
- *Illness concern.* Children with high exposure to medicine advertising worry more about getting sick (.14).
- *Approval of medicine.* The relationship between exposure to medicine advertising and approval of medicine is .12.
- *Efficacy of medicine* Children with high exposure to medicine advertising are more likely to feel better after taking medicine (.12).
- *Medicine usage.* There is a general lack of relationship between medicine-advertising exposure and medicine usage (.03).

[2]See Chapter 11

[3]An index constructed by multiplying the amount of viewing of evening television by the degree of attention to sample OTC drug advertisements

Figure 6-1

Proposed Variables and Relationships Influencing the Effects of OTC Drug Advertising on Children



In general, these results suggest that exposure to medicine advertising does, to a certain extent, influence a child's conceptions of illness and medicine These relationships tend to be accentuated somewhat among the smarter children (as measured by scholastic performance) and among the higher social-status children Other variables, such as age and sex of the child, parental attitudes toward medicine, or the child's frequency of illness, all show inconsistent patterns

A study similar *in concept* to Atkin's is that of Lewis and Lewis (1974). A total of 208 children (5th and 6th graders) from both an experimental school and a public school serving a disadvantaged population were asked to watch television and to describe commercials related to health From the children's reports, the authors inferred that the children believed 70 percent of the OTC drug commercials and that personal use as well as parental use of the advertised products increased the credibility of the advertising messages. This was particularly true among children from lower socioeconomic backgrounds. The problems in conducting the study were great As the authors themselves noted, the two schools viewed television at different times, there was no validation of actual drug usage, the group selected as a convenience sample, and the conduct of research in the context of a school assignment introduced considerable possibility for a social desirability bias

In a multi-phase research effort, Kanter (1970) found that students in 5th, 7th, and 11th grades reported their beliefs that advertising influences their feelings toward medicine No evidence was obtained as to actual attitudinal effects Many of the students also expressed the belief that other young people were potentially capable of being influenced by OTC commercials. However, the drug commercials were not recalled more easily than other commercials, and they had a low salience to the students (i.e., not talked about much) The youngest children (5th grade) were the most receptive and least critical, suggesting that the drug commercials may have greatest potential impact at this age level This finding could also indicate that skepticism increases with age, a finding generally confirmed in previous research by Ward (1971) and by Robertson and Rossiter (1974)

Campbell (1974) looked at the development of illness concepts among children ages 6-12 as a function of their parents' concepts of illness He found that the transmission process is far from direct and that illness concepts are also related to the child's health history and to age In other words, the Campbell results suggest that a parent's perspective regarding illness is not necessarily the prototype for the child, and that other sources of information, particularly the child's own experience with illness, contribute to the child's development of ideas about illness The role of proprietary medicine advertising in the formation of the child's concepts of illness was not a concern of the Campbell study

Usage and intention to use medicine A child's usage of proprietary medicines is directly mediated by parents [4] As such, we can expect that a child's use of OTC products would be a function of parental attitudes toward OTC medicines, the child's history of illness, and the child's requests for OTC medicines Atkin (1975e) found a moderate correlation of .17 between exposure to medicine advertising and usage of medicines, but this relationship disappeared when frequency of illness was controlled Of course, it may be argued that high exposure to medicine advertising encourages more frequent feelings of being ill and in need of medication For example, research with adults has shown that "illness" is defined not only by biological factors but also by psychological and sociological factors (Fox, 1968)

Research with teenagers by Milavsky, Pekowsky, and Stipp (1975) found a positive relationship between exposure to proprietary medicine advertising and reported usage of OTC medicines This relationship was stronger in homes where there were many OTC drugs around the house, but it did not vary according to whether the teenager took the drugs himself or asked his mother for the drugs

Illicit drug usage Most of the evidence on exposure to OTC drug advertising and drug usage concerns illicit drugs, in fact, this is the major focus of the Milavsky et al research cited above Does

[4] There is the special case of children ingesting OTC products on their own account The Attorneys General petition cited child poisoning from OTC drugs and suggested a relationship to television advertising

cumulative exposure to OTC medicine advertising ultimately encourage use of illicit drugs? Of the several studies to date, none has found a positive association Milavsky et al revealed a negative relationship between exposure to drug advertising and illicit drug usage Hulbert (1974), in research with college students, found no relationship between television exposure and illicit drug use Atkin (1975e), in research with 4th through 7th grade children, had similar results

In general, use of illicit drugs is associated with peer-group relations and family background (Hulbert, 1974, Kanter, 1970; Streit, Halsted, and Pascale, 1974) As Hulbert (1974) notes, illicit drugs are generally tried first in small groups and use is heavily determined by friends' use Hulbert also found that illicit drugs were used less by those college students who lived at home

All of these research projects examined *current* drug advertising exposure It could be argued that what is of equal or greater concern is cumulative exposure to drug advertising, since a long-term learning effect is at issue Critics of television drug advertising have not focused on a direct short-term relationship between OTC advertising exposure and illicit drug usage. Furthermore, the relationship between current exposure to drug advertising and illicit drug use might be expected to be negative, since illicit drug users are apparently less home-oriented and, therefore, less likely to be viewing television at all

NEEDED RESEARCH

Current policy regarding the impact of proprietary medicine advertising on children cannot be definitively addressed with existing research There are a number of problems

- Only limited research to date has focused on *children* Most of the research has been with teenagers and college students
- The existing research has most frequently dealt with *illicit drugs* and not with *proprietary medicines*
- A serious deficiency in the existing literature is the failure to examine the relative importance and *interaction* of the various information sources, including media, advertising, parents, peers, and siblings
- Much of the research cited has been conducted with other objectives in mind There has been little effort to address *systematically* the issue of proprietary medicine advertising's impact on children
- Serious questions of *research design* can be posed for many of the studies—e g., small, nonrepresentative samples, lack of reliability and validity checks, and the absence of replication
- Most of the research attempts to trace short-run effects, whereas the prevailing concern is with the long-run cumulative effects of OTC drug advertising
- Most of the research focuses on potential *negative* effects of OTC advertising, whereas there may well be positive learning effects about medicines and their appropriate uses
- The methods of analysis are largely cross-sectional (by age) and rely primarily on correlation If these correlation analyses are to suggest possible causal links, more care has to be taken in attempting to trace the cause-and-effect sequence

Among the research questions that should be investigated are the following

- *Exposure* To what levels of proprietary medicine advertising are children actually exposed, and how does this exposure vary by age? How much of this exposure occurs while the child is alone, how much in the presence of a parent?
- *Attention* Do children pay attention to proprietary medicine commercials, or does "selective perception" operate to screen out such advertising? What factors affect attention level—age of the child, the child's health history, parents' in-home usage of OTC drugs?
- *Understanding* Do children understand OTC commercials? What meanings do they take from the commercial? How aware are they of the product's value under specific conditions? What factors affect comprehension levels?
- *Viewing Level* Do heavy viewers of television hold different attitudes toward OTC drugs than light viewers, when age and health history are controlled? How does viewing level affect receptivity to OTC drugs, realism of health concepts, and awareness of advantages and disadvantages (e g , side effects) of OTC drugs?

- *Usage*. To what extent do parents administer OTC drugs to their children? To what extent do children request OTC drugs, and is this associated with viewing level? At what age do children begin to self-administer OTC drugs?
- *Multiple Sources*. How do the various information sources about OTC drugs interrelate, and what specific roles do they play in a child's attitude toward and usage of the drugs? Can the role of OTC advertising be separated in its impact from the role of parents, peers, and teachers?

These questions are indicative of the lack of knowledge concerning proprietary medicine advertising and its effects on children. Such questions must be answered before any meaningful policy can be formulated in regard to the advertising of OTC drug products on television.

Chapter 7

THE EFFECTS ON CHILDREN OF TELEVISION FOOD ADVERTISING

What are the effects of television food advertising on children? This question has been raised by the broadcast and advertising industries, by major corporations that market and advertise food products to children, by consumer advocate groups[1] and by some members of the professional health communities, by several congressional subcommittees,[2] and by the Federal Trade Commission and the White House Conference on Food, Nutrition and Health (1970).

Criticism of food advertising on television has been directed both at the quality of the food products and at their methods of presentation in television commercials. In this report, we will not attempt to adjudicate the arguments about the quality of the food products, since our focus is on the effects of advertising. However, questions about the nutritional value of advertised food products warrant serious consideration by food scientists, nutritionists, federal agencies, and the food industries.

It has been claimed that a child's developing sense of what our culture deems fit to eat is influenced by the foods that he or she sees in television commercials (Jerome, 1975). Other important influencing factors are also involved, of course, such as ethnicity, socio-economic status, and nutritional education by parents (Goldblith, 1976). Critics claim that the mere presence in television advertising of ready-to-eat cereals, candies, or other sweetened snacks suggests to children that these products are appropriate and desirable to consume. Furthermore, because these particular foods are heavily advertised to children, and because a full range of food products is not advertised,[3] "children—when they are still young enough to be forming their notions of what is good to eat—are being urged on television to eat foods which neither present good health nor healthful lifetime food habits" (Gussow, 1972).

Critics of food advertising for children also take issue with the *presentation* of food advertising. For example, commercials typically promote confections and snacks on the basis of their taste and flavor and often associate food products such as breakfast cereals with toys and other premiums. According to the critics, the relationship of good balanced eating habits to health is rarely included or emphasized in children's food commercials, and nutritional information about the advertised food products and services is seldom provided (Choate, 1972). As a result of early exposure to television commercials, "it becomes very difficult (by the time the 6 year old enters school) to reverse the whole process and explain that the first reason to eat is for the necessary nutrients" (Mayer, 1973).

Thus, questions have been raised about whether food advertising has an influence on children's nutritional knowledge and attitudes toward food and good nutrition, their eating habits, and even their physical health. Critics have argued as well that food commercials may be disruptive to parent-child relationships, in that conflicts may be precipitated when parents refuse children's requests for the advertised foods or when the parents' or teachers' influence over children's eating is contradicted or undermined by the advertising (ACT, Choate, 1972a, Jerome, 1975).

Members of the food industry answer that in recent years, rules and procedures have been adopted to guide advertisers promoting food products to children on television (NAB, 1975; NAD, 1975).[4] With regard to the promotion of confections and snacks, advertisers also note that taste and flavor *are* the primary functions and attributes of these products; therefore, the advertising presentation of these products is necessary and appropriate. In addition, food advertisers point out that the prime responsibility for nutritionally adequate and balanced diets

[1] Such as the Council on Children, Media, and Merchandising (CCMM) and Action for Children's Television (ACT).

[2] For example, the Senate Subcommittee on the Consumer, the Senate Select Committee on Nutrition and Human Needs (1973), and the House Subcommittee on Communications (1975).

[3] The food categories commonly *not* included in television advertising to children are fish and meats, dairy products, legumes and beans, fruits, vegetables, and their juices and fats and oils (Jerome, 1975).

[4] See following section for current industry regulations of food advertising.

for a child rests with the person who performs the role of meal planner The types of foods consumed in the home and served in the school expose children to a variety of food products, and this exposure must also be weighed in considering children's attitudes toward food, food advertising, and a balanced diet

In testimony before a congressional committee, representatives of Kellogg and General Mills expressed their conviction that their cereal advertising *contributes* to children's nutritional education by presenting cereal in the context of a full breakfast, thereby encouraging them to eat a good breakfast. In this context, Kellogg cited their "Good Breakfast Campaign," a series of commercials in which a variety of breakfast foods are depicted in order "to educate children to the need for breakfast" (Senate, 1975:5). Many companies also prepare and distribute nutrition and health-related information in other forms, such as informational publications and related materials for schools, and nutritional labeling on product packages.

The food industry has also raised the question of the feasibility of presenting meaningful statements on the subject of nutrition within the format of a 30-second commercial The Pillsbury Company states:

> It is our judgment . that the television commercial does not lend itself to a constructive learning process. So it is not in itself an efficient means of instructing viewers in a complex and extensive subject such as nutrition.

General Mills also suggests that nutrition-education messages are best directed not to children but to parents, who have control over menu planning.

Finally, industry representatives justifiably argue that advertising is only one of many factors that probably influence children's food choices and diet. They point, for example, to studies[5] carried out at the Monell Chemical Senses Center, University of Pennsylvania, demonstrating that newborn babies respond to a wide variety of sugars and other taste stimuli. When tested within the first few days of life, these babies not only responded to sucrose at concentrations meaningful to adults, but they also discriminated among different sugars. This research suggests that a drive for sweet stimulation exists in the newborn infant and is independent of early experience. However, it should be noted that the specific foods which come to satisfy a baby's taste preferences may be strongly influenced by the foods that are accessible and acceptable to families

CURRENT AND PROPOSED REGULATION

Several forms of regulation and self-regulation exist for televised food commercials directed at children.[6] The NAB code (1974; 1975) includes the following references to the promotion of food products:

> Given the importance of sound health and nutritional practices, advertisements for edibles should be in accordance with commonly accepted principles of good eating and should seek to establish the proper role of the advertised product within the framework of a balanced regimen.
>
> Commercials for products, such as snacks, candies, gum, and soft drinks, should not suggest or recommend indiscriminate or immoderate use of the product.
>
> Each commercial for a breakfast-type product should include at least one audio reference to and one video depiction of the role of the product within the framework of a balanced regimen In executing this reference to a balanced regimen, it is permissible for the video to be animated and for the audio to be delivered by an animated character. However, a video title superimposed on the screen may *not* by itself be used to describe a balanced regimen, as some viewers do not read yet.
>
> With reference to message sources, real-life authority figures/celebrities are disallowed from being shown eating the advertised food, this constituting an endorsement or testimonial situation. but cartoon characters created for and primarily associated with a specific children's food product ("presenter") can be shown eating the product.
>
> Special enriched foods designed to serve as meal substitutes may be advertised as such,

[5] M R Kare *Sweeteners, Issues and Uncertainties* National Academy of Science, Washington, D C , 1975

[6] The history of regulation of television advertising to children is described by Choate (1975), specifically nongovernmental forms of regulation are also identified by Banks (1975)

provided their purpose and nutritional value are featured in the advertisement and are supported by adequate documentation.

The NAD guidelines (1975) include these statements regarding food advertising

> Particular control should be exercised to assure that representations of food products are made so as to encourage sound usage of the product, with a view toward healthy development of the child and the development of good nutritional practices

> Advertisements representing mealtime in the home should clearly and adequately depict the role of the product within the framework of a balanced diet. Overconsumption of food products and beverages should be avoided, nor should it be implied that any one food provides all the nutrients contained in a well-designed daily food plan

The FTC, in its jurisdiction over unfair and deceptive acts or advertising practices, has taken an active interest in the issue of food advertising for children. The following case illustrates the regulatory efforts of the Commission. In 1975, the Commission reviewed a complaint of the Bureau of Consumer Protection concerning a series of television advertisements for Post Grape-Nuts, a ready-to-eat breakfast cereal marketed by General Foods Corp. (FTC, 1975, #C-2733). In these commercials, an adult is shown picking wild growing vegetation, including cranberries, parts of pine trees, and cattails, while observing that each is edible. "I'm gathering part of my breakfast . . . delicious with Grape-Nuts. . ." In some cases, the narrator put the picked berries into the cereal bowl. The consent order accepted by the FTC and General Foods stated that these advertisements might lead children to eat harmful plants which they might find growing in natural surroundings.[7] The Commission's allegation pointed out that "a substantial number of children do not have sufficient knowledge or experience to distinguish between those plants . . . which are harmful from those which are not harmful." As a result, these "advertisements have the tendency or capacity to influence children to engage in behavior which is harmful or involves the risk of harm, and are unfair or deceptive acts or practices, in violation of sections 12 and 5 of the FTC Act." General Foods agreed to cease and desist from these advertising practices.

Criticism of food commercials directed to children has often been accompanied by suggestions for corrective action. For example, recommendations from medical professionals and nutritionists have included (Senate, 1973):

- Systematically incorporating nutritional information (e.g., major nutrients and the food's role in a balanced diet) in food commercials (Jerome).
- Sharp curtailment (Shaw) or banning (Nizer) of children's television advertisements for heavily sugared products
- Reevaluation by manufacturers of products with high sugar content, toward reformulation with sugar substitutes (Navia).

At the level of fundamental corporate policy, Mayer (1973) argued that "What we need is for food companies to agree that they are selling taste, appearance, maybe fashion, but first of all they are selling sources of nutrients, and one is by no means exclusive of the other."

Robert Choate, founder of the Council on Children, Media and Merchandising, initiated suggestions for a Television Code for the Advertising of Edibles, which would establish guidelines for the frequency, grouping, and presentation of food advertisements directed to children (Choate, 1972b). Action for Children's Television sought corrective action by petitioning the FTC (1972) for a trade regulation rule to eliminate all food advertising to children on the grounds that it is "misleading and unfair."

More recently, the FTC has proposed a trade regulation rule on food advertising ". . . designed to eliminate deception and unfairness which may result from the making of certain affirmative claims with respect to nutrition" (*Federal Register*, 1974, 39, 218; 1974, 41, 42). This proposed rule on food advertising has become the subject of considerable

[7] A consent agreement is for settlement purposes only and does not constitute an admission by respondents that they have violated the law. The Poulos study (1975), described later in this chapter, was commissioned by the FTC to investigate the effects of these commercials on children

controversy among food advertisers, their trade organizations and legal counsel, and members of the health professions.[8] Numerous issues of fact, law, and opinion surround the specific provisions of the proposed rule, and the real consequences of such regulation are difficult to anticipate.

INCIDENCE

According to *Broadcast Advertisers Reports*, over $70 million was spent by advertisers in 1970 on network weekend children's television shows. Eight advertisers accounted for more than half of the advertising revenues from these programs, and five of these eight were advertisers of food products to children: Kellogg, General Mills, General Foods, Quaker Oats, and Mars (Pearce, 1971). (The other three were toy manufacturers.)

Information compiled more recently by *Broadcast Advertisers Reports* (1975) indicates little change in the major food advertisers on network children's programs.[9] With the exception of Mars, which in 1975 occupied a lower rank on the scale of advertising revenues, the same four companies headed the list. Revenues from cereal commercials appearing on children's shows in 1975 totaled over $24 million; those from candy and gum advertising accounted for an additional $11 million.[10] In comparison, promotional messages for toys, games, and hobby crafts yielded a combined total of less than $22 million.

Of the wide range of edible products, why are cereals, candy, and other snacks so heavily promoted on television to young audiences? First, these are products known to be consumed by children. Also, while in most cases children are not the purchasers of these products, they are believed to exert influence on their parents to purchase the products (see Chapter 10 of this report).

Another explanation may be the great variety of brands among these products. Ready-to-eat cereals offer a case in point. In recent years, there has been a dramatic increase in the number of cereal brands on the market. Presweetened ready-to-eat cereals, marketed specifically as children's products, comprise a significant portion of cereal product[s], estimated $470 million of the $1.5 billion (*Advertising Age*, March 8, 1976). Since each of the major cereal manufacturers markets a number of different brands, product differentiation seems to be an economically viable marketing strategy for these corporations. The differentiation among these essentially similar products is achieved by varying such features as flavor, shape, color, and packaging and promotion.

Among the presweetened cereals, for example, individual brand images have been developed by associating the brand and its packaging with the promotional features of the commercials for the product. These include animated presenter characters (e.g., the Sugar Frosted Flakes Tiger, Trix' Rabbit, Cap'n Crunch) and musical jingles and slogans (e.g., "Sugar Frosted Flakes taste GRRRRREAT!") In-pack and mail-order prizes and premiums are also used to identify brands. For example, Ralston-Purina's new product entry, a fruit flavored breakfast cereal called "Moonstones," was described as follows:

> "Moonstones" is built around moon-based characters called "Moonbeams"—the good guys who work on the light side of the moon—and "Moonbums"—the bad guys living on the dark side of the moon who are continaully trying to "get their dirty hands on" the secret formula for the cereal. The in-pack premium is a moon buggy and the package contains a T-shirt self-liquidating offer (*Advertising Age*, March 8, 1976).

In contrast, "basic foods," such as fruit, vegetables, fish, and meat are rarely advertised nationally, even to general audiences. It is said that their undifferentiated, unbranded nature and well-established familiarity to the consumer make them less suitable items to promote profitably. In addition, with the exception of certain trade organizations (e.g., the American Dairy Association), farmers and producers are not well-equipped to mount national advertising campaigns.

There have been several *content analyses* of television commercials that promote food products or

[8] For some further general discussion of the proposed rule, see the monograph by J. Jacoby et al., "Affirmative Nutritional Disclosure in Advertising and Selective Alternatives. The Likely Impact on Consumers," Consumer Research Institute. For a discussion of the proposed rule as it might affect children, see Choate, testimony submitted to the Federal Trade Commission by Council on Children, Media, and Merchandising, Washington, D.C., Oct. 1976.

[9] The category of "network children's television" included weekend morning programing, CBS's weekday morning show *Captain Kangaroo* and the monthly *ABC After-School Special*.

[10] Fast food restaurants also accounted for a large amount of advertising revenues on the children's shows.

services specifically to child viewers One early analysis, commissioned by the NAB, reported specifically on promotional messages for foods during network weekend morning children's shows in the 1971 fall season (Winick et al , 1973). A subsequent study, by Atkin (1975d), analyzed the content of network advertising on two comparable Saturday mornings in 1973 and 1973 Although both of these studies were conducted prior to the latest NAB and NAD guidelines, they provide useful data for pre- and post-code comparisons .

More recent data, commissioned by ACT, analyzes 1975 weekend morning children's advertising and program content on five commercial stations in Boston (Barcus, 1975a). Three of the stations were network affiliated, the other two were independent UHF stations A substantial majority (68 percent) of the total sample of 400 commercial announcements were for food products or eating places. A more detailed listing of food-product categories included 25 percent ready-to-eat cereals, 25 percent candies and sweets, 10 percent eating places and fast-food restaurants, 4 percent "snack foods," and another 4 percent miscellaneous (including milk and dairy products, fruits, fruit juices, and bread).

Describing the specific content of the food commercials, Barcus characterized 100 cereal messages as follows: 50 percent showed the product in use and the other half just showed a picture of the product, 60 percent of the ads referred to taste/flavor, 25 percent made specific reference to sweetness, 43 percent mentioned nutritional value (e g , by identifying names on vitamins); 91 percent represented the product as part of a balanced meal;[1] only 3 percent specified ingredients or calories, and 47 percent used a premium offer. In comparison, candy advertising also tended to mention taste/flavor (68 percent), but references to sweetness were rare (2 percent). The candy commercials also made infrequent references to nutritional value (8 percent) and rarely represented the candy product as being part of a balanced meal (2 percent) They tended to show the product being eaten (76 percent) and 24 percent of the ads referred to the candy as a snack

RESEARCH EVIDENCE

Research on mediating variables Mediating variables include such factors as the age and cognitive level of child viewers; the income, television viewing patterns, and media-related attitudes of families; and intrafamily communications about food product choices and eating habits. Clancy-Hepburn conducted two studies (1974) which examined the premise that children's responses to television food advertising affect their eating behavior through a variety of mediating factors, especially parent-child interaction. Fifty 8 to 13 year old middle-class boys and their mothers were interviewed in one study; the other included 55 lower-income boys and girls. The findings supported the correlation between parents' and children's attitudes and behavior toward food advertising. Specifically, children of mothers with high knowledge of the validity of nutritional product claims expressed significantly fewer preferences and requests for advertised foods and reported lower consumption of these products. Children who frequently accompanied their mothers on grocery-shopping trips made the most purchase demands, and there was a strong positive relationship between children's purchase requests and mothers' yielding to these requests, although the mothers with high knowledge about advertising claims tended to yield less to the requests for snack foods.

Further evidence of children's requests for advertised foods and their parents' yielding to these requests was presented in a national, industry-supported survey of 6-14 year old children and their mothers in regard to food-related information, attitudes, and behavior (Gene Reilly Group, 1973b). A sample of 1,053 children were individually interviewed in their homes; 591 of their mothers completed self-administered questionnaires. For the 20 product categories examined in the study (including presweetened cereals, cookies, fruit drinks, peanut butter, gum, and candy), at least 75 percent of the mothers who purchased these products said that they were influenced in brand and product selection by their children's requests.

This study also attempted to account for the operation of "passive dictation" as well as direct requests in the interaction reported between parents and children. Wells (1966) described passive dictation as follows.

> If you ask a woman, "Who chooses the brand of dog food used?", she replies that she usually does If you ask how she goes about it, however, you will find she usually tries a number of brands and continues to buy the one the dog likes best.

[1] This practice is evidence of advertisers compliance with the balanced breakfast disclosure required by the NAB Code

Thus, of the 82 percent of children who reported ever wanting ready-to- at cereal, 56 percent said their mothers knew which cereal they wanted without having to ask (passive dictation), while another 40 percent reported having to ask their mothers to buy a specific kind for them The mothers tended to corroborate the children's reports

The children also admitted to parental restrictions on their eating habits For example, about half the children interviewed indicated that their parents restricted their intake of sweets, particularly candy, gum, and chocolate (although two-thirds said they were still allowed to buy candy either "very often" or "pretty often") Imposed limitations on the consumption of sweets are consistent with the mothers' expressed concerns about sugar generally (60 percent) and candy specifically (54 percent) in their children's diet. Mothers of 6-7 year olds and mothers at lower income levels reported the highest levels of concern Sixty-nine percent of the children surveyed also reported that there were certain foods parents said they must eat, with vegetables (71 percent) and meat (25 percent) cited most often

Atkin (1975f) used unobtrusive observation in supermarkets as a more direct way of studying parent-child interaction in the selection of cereals The results indicated that in two-thirds of the 516 families observed, children initiated the selection of a cereal, either by demanding (46 percent) or requesting (20 percent) a specific cereal Parents were twice as likely to approve than refuse the proposed purchase, with demands resulting in slightly more acquiescence (65 percent) than requests (58 percent). One-fourth of all the interactions were reported to result in parent-child conflict, usually as a consequence of a parent's negative response to the child's initiative. Atkin speculated that the children's observed behavior in the shopping situations was affected by their prior viewing of cereal commercials. However, he acknowledged that their exposure to television commercials would need to be experimentally controlled in order to conclude that their familiarity with the products was the result of advertising. It would also be useful in such a study to provide comparative data by observing parent-child decision-making in regard to an unadvertised product.

A subsequent study (Galst and White, 1976) measured preschool children's attempts to influence purchases while accompanying their mothers at the supermarket.[12] The children's requests were found to be positively related to the amount of television they were reportedly exposed to at home Cereals and candy, the foods most frequently advertised in commercials directed at children, were the most heavily requested items In addition, another phase of the study provided evidence that the harder a child worked (by pressing a button) to maintain commercials on a TV monitor, as compared to the program narrative, the greater the number of purchase requests he or she directed to the mother at the supermarket

Research on effects The few studies in this category investigate such factors as children's learning of information from commercials, their acceptance of product claims made in food commercials, other food-related attitudes, and their reported eating behavior In terms of children's acquisition of information and attitudes from food commercials, the Gene Reilly Group study (1973b) found that the children demonstrated high awareness of nationally advertised brand names of such products as ready-to-eat cereals, candy, gum, and snack cakes and pies For example, 86 percent of cereal-eaters and 84 percent of candy-consumers identified a specific brand as either their favorite or one they usually ask for.

In general, the children's brand-name recall increased with age (this was also observed in a study by Keiser, 1975). In contrast, the children's references to such products as ice cream and fruit juice were often made in generic terms (e.g., "chocolate" ice cream and "orange" juice) than by specific brands.

Questioned about more general information (e.g., "the kinds of things you call snacks"), the children most often cited sweets (78 percent), such as cookies, candy and cake, and ice cream The other foods identified as snacks were in order of frequency, salty chip-type products, fruit, sandwiches, and milk These responses indicate that the children's concepts of what constitutes an acceptable snack usually included those products heavily advertised to them. When the children were asked to evaluate the nutritional value of foods eaten at meals and for snacks,

[12]The study defined a purchase influence attempt as the child's making an independent request for an item (by asking, pointing, putting it in shopping basket, or grabbing), buying an item with his/her own money, making a decision when given the choice by the parent

sweets (notably candy and soft drinks) were consistently described as being "not so good for you" in the context of mealtime foods. However, this evaluative distinction broke down somewhat for afterschool snacks, in that one out of four of the children mentioned sweet foods as "especially good for you or healthy." Following a similar line of questioning, another researcher, Disson (1974) asked 4th-7th graders about their sources of nutritional information. Less than half the children could identify a specific source for their information about nutrition. Those who did identify a source mentioned parents most often and television only infrequently.

More recently, a series of studies commissioned by the Council on Children, Media and Merchandising have investigated the use of graphic materials to convey nutritional information to children (Feshback, et al., 1976). First, preliminary research was carried out in order to test alternative graphic representations of a food's nutrient content (the protein, vitamins, minerals, and calories contained in a serving). On the basis of this pilot work, a spaceman "Nutrition Computer" graphic, intended to be incorporated into food advertisements directed to children, was designed on whose chest area were bar graphs displaying the nutrient content for selected advertised foods. A sample of 88 children ages 4 to 10 were exposed to this figure either with or without a prior orientation-training session. The findings indicated that more than half of the 1st through 4th graders (6 to 10 years) exposed to the graphic plus orientation were able to reproduce correctly the nutritional information on a wooden spaceman model with adjustable bar graphs. More interesting, they were also able to evaluate the nutritional value of hypothetical foods as depicted by means of the spaceman graphic. However, it was not until 4th grade that most of the children could reproduce and generalize information from the graphic without prior orientation (which could be provided, for example, through school curricula or public service announcements).

In terms of expressed attitudes toward meals, the Gene Reilly Group found that children mentioned breakfast least often as their favorite meal (16 percent) and dinner most often. The reasons given for liking breakfast less tended to involve not having enough time or not being hungry. For those children who liked breakfast best, specific food preferences were usually responsible, with cereal being the primary "liked" food. The study did not pursue the possibility that these children's enjoyment of breakfast was related to their liking of cereals specifically advertised on children's programs.

Atkin (1975f) attempted to record references by children to nutritional value or the presence of a premium offer as a reason for their selection of a particular cereal from the supermarket shelves. Although almost none of the children explicitly mentioned the general nutritional value of a product, nearly half of the children appeared to take account of the premium in making their selection.[13] However, this figure is based upon observer opinion as well as actual mentions.

In another study, Atkin (1975b) varied the product claims presented in 10-second segments of a 30-second food commercial and then compared the two different messages in informing and persuading children about the same cereal product. In one commercial, which Atkin characterized as a "traditional emotional" claim, the assertion was made that the cereal provides energy to become "a great swimmer" and "to do great" in school. The other "rational information-oriented" message specified four vitamin ingredients in the cereal and made the claim that the vitamins provide energy to "work hard" in school.[14]

Each of 500 children (3 to 10 years old) was randomly assigned to view one of the two messages and then interviewed. No significant differences were found between the children's overall recall of the two commercials (that is, the "subjects tended to learn the content presented in the version viewed"). The children were also equally less likely to express preferences for the product, regardless of the version of the commercial they viewed. According to Atkin, his findings demonstrate that the "information-oriented" message strategy can be at least as effective as the "conventional emotional" approach in conveying product information and achieving favorable responses from children.

Haefner, Leckenby, and Goldman (1975) attempted to investigate the persuasiveness of four

[13] In regard to the salience of the premiums in cereal purchases, Rossiter (1975) found that most children when asked to reproduce the back of a cereal box, include a premium in their drawings. The incidence of this occurrence increased with the age of the child, from 39 percent among first graders to 75 percent of the fifth graders. Other studies on this issue are reviewed in Chapter 4.

[14] Energy claims are one of the issues under consideration in the FTC's proposed trade regulation rule on food advertising.

commercials against which complaints of possible deception had been reviewed by the FTC. One of the commercials, for Wonder Bread, was finally judged deceptive by the Commission. A sample of 34 children in the 2d grade and 102 in 7th and 8th grades were interviewed before and after their viewing of a short film in which one of these four commercials was inserted The advertising had no significant effect on the children's reported liking of the products or their preference for the product in a choice situation with three competing brands However, the 2d graders' acceptance of product claims was influenced by all four advertisements, and both the younger and older children exposed to the Wonder Bread commercial exhibited significant changes in their levels of acceptance of the specific product claims made in that message (e.g , "Wonder Bread is the best thing your mother can give you to grow fast") The Wonder Bread commercial was the only one of the four for which the older children showed a shift (a lower level of disagreement) in their belief of the product claims The authors concluded that younger children are generally more likely than older children to be persuaded by product claims in commercials This tentative evidence of the younger children's greater persuasibility suggests the need for further investigation and special consideration by both advertisers and regulators

The Poulos study (1975) commissioned by the FTC, represents a pilot effort to examine whether the series of Post Grape-Nuts commercials under review by the Commission had the tendency or capacity to lead children to pick and consume plants which could be harmful As noted earlier in this chapter, the commercials showed an adult picking wild-growing vegetation while remarking that it is edible In some of the advertising, the picked berries were put into a bowl with the cereal Four of the commercials were shown to a small sample of 5 to 11 year old children (the average age was 6). Pre- and post-viewing interviews were administered to measure the children's beliefs about the edibility of a variety of plants depicted in color photographs

The plants included both familiar edibles (e g , corn and watermelon) and toxic plants, some of the latter resembling those pictured in the commercials The children's ratings of edibility for the toxic plants most closely resembling those in the commercials increased much more than their edibility ratings for either the other toxic plants or the familiar plants The author concluded that, although the research needs to be extended and replicated, "the results do suggest that the cereal commercials have the capacity to lead children to engage in behavior that increases risk to their physical being "

Atkin's survey (1975e) of 506 children (4th through 7th graders) provides evidence of a positive relationship between children's reports of their exposure to television advertising for cereal and candy and their consumption of these kinds of products. However, the relationship between reported exposure and consumption is reduced when parents impose restrictions on their children's eating habits.

Finally, an experimental study by Gorn and Goldberg (1976b) assessed a variety of children's responses to both single and multiple exposures to commercials for a food product. The researchers used commercials for a brand of ice cream unknown to their 151 8 to 10 year old subjects thus permitting a direct assessment of the extent of learning as a function of exposure to TV commercials A control group saw a program with no commercial inserts, while other groups were randomly allocated to conditions in which either one, three, or five commercials were inserted in the same program For some, the three and five exposures consisted of the same commercial repeated over again, for others, the three and five exposures consisted of different commercials for the same product.

The degree to which the children learned the brand name and the number of flavors of ice cream available (featured prominently in each of the commercials) was first assessed The researchers found that *any* exposure to the commercials resulted in significant proportions of the children recalling both the brand name and the number of flavors.

The commercials were not as effective in influencing the children's attitudes toward the advertised brand. Only one group (those exposed to three different commercials for the ice cream) evaluated it more favorably "relative to other ice creams they knew "

It was even more difficult to influence the children's choice behavior They were told that one of four snack foods might later be available for them and were asked to indicate their choice. None of the groups who had been exposed to the ice cream commercials made more ice cream choices relative to the

control group who had not seen the ice cream commercials Only when offered a second choice "in case their first choice was not available" was one group (those who had viewed five different commercials) significantly more likely to choose ice cream than the control group

Lastly, Gorn and Goldberg provided each child with ice cream and subsequently measured the number of ounces each child had eaten (as they viewed a second TV program) No significant differences were noted in actual levels of consumption as a function of the exposure to the ice cream commercials (this was true even when the child's weight was controlled)

The researchers concluded that there appeared to be a "hierarchy of effects" operating. Exposure to the commercials readily resulted in the learning of the new brand name and a particular brand attribute (number of flavors) Brand preference, however, appeared less susceptible to influence, and the children's choice behavior even less so Actual consumption behavior was not at all influenced by the ice cream commercials.

Clearly, the impact of food advertising on children will vary as a function of the particular food in question, the specific commercials utilized and the age of the child, among other factors Nevertheless, the "hierarchy of effects" hypothesis is consistent with previous research using adult subjects, and is a paradigm deserving of further consideration in future research

SUMMARY

Characteristics of food commercials Food commercials appearing on children's programs (primarily weekend mornings) represent a limited range of products, including presweetened ready-to-eat cereals, candy products, and cookies In general, these commercial messages tend to associate the advertised foods with specific brand name information, with taste/flavor descriptions, with "fun," and, particularly in the case of cereals, with premiums and animated "presenter" characters Food advertisements directed to children offer little nutritional information The nutritive content and value of foods are rarely described or emphasized, their contribution to a total balanced diet is seldom explained. A notable exception to this practice of *not* including nutrition information is the NAB Code requirement that advertisers depict breakfast products like cereals within the context of a "balanced meal". Commercials for candy and cookie products typically do *not* make any nutritional claims and generally refer to these foods as snacks rather than as part of a meal

Mediating variables Children respond differently to food advertising according to their ages. A number of studies report a predictable increase with age in the product information (e g., brand names) that children retain from food commercials as well as in their knowledge about the validity of nutritional claims Younger children seem to express more acceptance of food product claims than older children and to exhibit greater shifts in belief of product claims subsequent to commercial viewing

The parents' role in mediating the influence of television food advertising on their children is complex. Parents may intercede by imposing specific restrictions on children's consumption of certain advertised sweets, such as candy. Children of mothers with greater knowledge of the validity of nutritional claims were reported to make fewer requests for advertised foods. In general, however, several studies present evidence of a positive relationship between children's requests for advertised food products and parental yielding to these requests, whether expressed directly or through "passive dictation." One study also found children's requests for advertised foods to be positively related to the amount of television they were reportedly exposed to at home. Finally, conflicts between parents and children have been observed to ensue when children's food product requests were denied

Effects. Children have been shown to acquire specific product information presented in food commercials. There is also preliminary evidence indicating that information about the nutritional content and value of food products can be effectively communicated to children both within commercials and in brief (5 seconds) slide presentations. Studies have also demonstrated shifts in children's beliefs about advertised foods following their exposure to specific commercial messages. These may include incorrect as well as correct beliefs about promoted food products. As noted, children's consumption of advertised foods is most often accomplished by influencing family purchase decisions While commercials are not permitted to encourage children to make direct purchase requests, it is generally assumed that such

requests occur at least in part as the result of children's development of desires for the foods they see advertised.

NEEDED RESEARCH

There is clearly a gap between research evidence which is considered "relevant" and that which is "sufficient" to affect current advertising practices and regulatory policies.[15] Future research can be more effectively applied to decisions about policy and practice if it is specifically designed with that as its objective. For example, content analyses should be conducted with the specific intent of revealing the extent to which food advertising presented information related to industry codes or government regulations. Measures could be designed to describe the ways in which nutrition disclosures were made (how central to the action or narrative content are they? how much time or emphasis are they given aurally and/or visually?), the ways in which the foods are depicted, and the reasons offered for consuming advertised foods.

However, in order to determine what information is actually received by children and whether it is correctly understood, it is necessary for the children's responses themselves to be studied and evaluated. For example, there has been little research investigation of the extent to which children perceive and comprehend the references to "energy" and to the role of a cereal in a "balanced breakfast" which sometimes appear in food commercials. Both the FTC and the NAD (Griffin, 1976) have acknowledged the usefulness of research in which small samples of children are exposed to questionable commercials and asked specific questions about their understanding of those messages.

The longer range effects of television food advertising on children's food knowledge and eating habits also needs to be studied. For example, do food commercials have a cumulative influence on children's conception of appropriate foods for meals and snacks? Does advertising affect the attitudes upon which children base their developing food preferences?

Finally, there is the question of using advertising to provide nutritional information to young audiences

1. Should children be exposed to a wider range of advertised food products?
2. Should advertisers include more nutritional information to provide children with the opportunity to learn about nutrition as one factor among several in their food choices?
3. Given the influence of parent-child interaction on food selection, should food and nutrition-related television messages be directed to children *and* to parents?

Nutrition education has already been recognized as warranting some form of national public program (White House Conference on Food, Nutrition and Health, 1970). Television's ability to serve as a major source of information for the American public marks it for a potentially important role in such a national program. What seems to be necessary is the assumption of responsibility by various groups, including government, industry, and educators, for determining ways to implement such a program.

Lesser (1974) describes some of the research steps necessary to design and produce nutritionally informative television material for children. First, children's existing knowledge and understanding of good nutritional patterns should be determined.[16] On that basis, the areas of "nutritional illiteracy" most in need of correction can be identified.[17] Then, as educational materials are developed, they must be tested with children to determine whether they hold their attention, are understood, and produce desired as well as unintended changes in behavior. Pilot materials can be revised on the basis of this feedback. Finally, any program of nutritional information must evaluate its long-term effectiveness for representative members of the intended audience.[18]

[15]This problem is one of growing concern among the scientific community (Comstock and Lindsey, 1975, Anderson, Comstock, and Dennis, 1976)

[16]A survey of adult consumers' understanding of certain nutritional phrases and claims used in food advertising was prepared for the FTC in the course of its work on the proposed trade regulation rule (Response Analysis Corporation, 1975)

[17]Sorenson and Hansen (1975) and Ullrich and Briggs (1973) present useful ideas for designing nutrition education curricula for children

[18]For example, ABT Associates (1974) evaluated "Mulligan Stew," a 4-H television series on nutrition targeted to 4th to 6th grade children, Cooper and Philp (1974) reported on an evaluation by the Ontario Milk Marketing Board of its nutrition education workshops for elementary school teachers

Chapter 8

THE EFFECTS OF THE VOLUME AND REPETITION OF TELEVISION COMMERCIALS

This chapter reviews the research on effects of television advertising resulting from the *frequency* of children's exposure to commercials We will use the term *volume* to refer to frequency of exposure to commercials in general. The term *repetition* refers to frequency of exposure to a particular commercial Four main issues are apparent, three relating to volume and one to repetition

1. That certain long-term effects may result from children's exposure to commercials Alleged effects include a greater susceptibility to persuasion, development of materialistic values and, more positively, certain consumer socialization effects such as appreciation of the marketing and economic environment. Since it is hypothesized that these effects increase with cumulative exposure to television commercials as children grow older, we shall designate them as *long-term exposure effects*

2. That certain effects may result from frequent exposure to commercials through "heavy viewing" within age groups Susceptibility to persuasion is the most common of these alleged effects. To distinguish these more immediate effects from the previous long-term category, we shall designate them as *heavy viewing effects.*

3. That volume effects are also relevant in the short-term via the "clustering" of commercials in blocks between programs versus distributing them between and during programs. Proponents of clustering allege that it helps children to discriminate between program content and advertising content Opponents allege that clustering leads to "clutter" and poorer individual commercial performance, which unfairly penalizes the advertisers We shall refer to this issue as *clustering effects*

4. That repetition of the same commercial results in stronger effects than a single exposure. Most often, the allegation is that increased susceptibility to persuasion results from such repetition, but also included are other potential effects such as "irritation." We shall refer to this issue as *repetition effects.*

CURRENT CODES

1. *Long-term exposure effects.* The NAB code now specifies that nonprogram material (of which commercial content is 80 percent or more) must be limited to 12 minutes per hour on weekdays and 9 5 minutes per hour on weekends during programs "initially designed primarily for children." These limits went into effect on January 1, 1976, and compare with a limit in 1974 of 16 minutes per hour. During adult programing, the limits are 9 5 minutes per hour during prime time (any station-designated period of 3 5 consecutive hours between 6.00 p.m. and midnight each day) and 16 minutes per hour at all other times. The NAD has no provisions pertaining to volume of commercials, it covers specific commercial practices only

2. *Heavy viewing effects* The new NAB code provisions would automatically reduce children's likelihood of exposure to commercials for both heavy and light viewers—at least to the extent that they watch children's programs This volume restriction applies to time but not to the *number* of commercials. Predictably, neither the NAB nor the NAD codes prohibit "heavy viewing" per se

3 *Clustering effects* The NAB code allows the practice of clustering commercials in blocks between programs In fact, the code prohibits the opposite, i e , too wide a distribution of commercials within programs For children's programs and also prime time programs, the number of within-program interruptions is limited to two per half-hour program or four per one-hour program Again, this volume-related matter is not covered in the NAD provisions.

4 *Repetition effects.* As far as we can discern from the NAB code there is no limit on the number of times a particular commercial may be repeated

Nor is there a limit on how rapidly it may be repeated, apart from the restrictions on number of interruptions per hour and total nonprogram time per hour already described.

INCIDENCE

For the sake of continuity, we will retain in this section the "effects" headings used above. However, it should be made clear that incidence here refers merely to *potential* for effects. The effects themselves are reviewed in the research evidence section.

1. *Long-term exposure effects.* Relevant incidence figures for long-term exposure effects are tied into the question of whether or not broadcasters adhere to the NAB's restrictions on advertising volume. The indications are that, on average, broadcasters have complied with these limits. Although no 1976 figures are available for the 9.5-minute weekend rule or the 12-minute weekday rule, a content analysis was conducted the previous year when the limits were 10 minutes and 12 minutes, respectively (Barcus, 1975a; 1975b). The average (mean) per-hour times devoted to nonprogram material were 9.5 minutes and 11.9 minutes respectively.[1] Barcus also noted that some stations consistently exceeded these limits slightly (usually by less than 60 seconds) and that all stations monitored exceeded them occasionally. However, since approximately 20 percent of nonprogram time is occupied by noncommercial announcements,[2] the time figures for *commercials* would almost invariably be less than 9.5 and 11.9 minutes.

Another finding in Barcus' research bears on the nature of "volume." Although the total *time* devoted to commercials in children's weekend programing declined from 19 percent in 1971 to 16 percent in 1975, the *number* of commercials was hardly reduced at all. In 1971, there was one commercial every 2.8 minutes, and in 1975, one every 2.9 minutes.[3] Thus, in 1975, children had the opportunity to see as many commercials but a lower volume of advertising time than in 1971.

A second type of incidence figure is represented by the extensive data on children's viewing patterns described in chapter II of this report. Note that the estimates of commercial exposure in these data should be regarded as incidence figures and not as exposure figures—unless we define exposure as "potential for exposure." The figures are based on children's viewing of programs and are not adjusted for nonviewing (plus perhaps nonhearing) of commercials. Nonviewing can be substantial, as indicated in Chapter I. As incidence figures, then, the data show that an average child between the ages of 2 and 11 is presented with about 19,000 to 20,000 commercials per year, or about 50 to 55 commercials per average viewing day.

Some supplementary statistics may be useful in placing these incidence figures in context. First of all, the Nielsen data from which the incidence figures are derived reveal a decline in viewing with age. However, the decline is slight—3 hours 47 minutes per day for 2 to 5 years olds down to 3 hours 41 minutes for 6 to 11 year olds. Thus, it is unlikely that the rate of cumulative exposure to commercials declines significantly over the 2 to 11 age range. Second, it may be recalled from Chapter II that approximately 85 percent of the commercials children are potentially exposed to are not shown during children's programs and are therefore not subject to the NAB children's code. On the other hand, it should be noted that noncode commercials are most likely to be on programs that are *co-viewed* by the child and at least one parent. The overall co-viewing incidence is estimated at 45 percent for both 2 to 5 year olds and 6 to 11 year olds.[4]

2. *Heavy viewing effects.* The program viewing data (and, thus, potential commercial exposure data) referred to so far have been based on means or

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[1]Computed from Barcus' data in his Table 17 (1975a) and Table 21 (1975b).

[2]For example, Barcus' weekend report recorded 79.9 percent programs, 13.1 percent commercials, 2.8 percent program promos (for a total of 15.9 percent "commercial time"), 3.2 percent noncommercial announcements, and 1.0 percent taken up by station I.D.'s, dead air, and other miscellaneous material.

[3]According to Barcus' figures, a full 98 percent of commercials in children's weekend programs are now 30 seconds in duration, versus a mixture of 60-second and 30-second commercials earlier.

[4]Estimated from 1975 Nielsen data by taking the percent of viewing in each viewing category (see Chapter II, Figure II-2) and weighting these by co-viewing levels (see chart, p.)

averages. As noted in Chapter II, there is considerable variation around these average figures. Although the average viewing figure is approximately 3.75 hours per day, it is likely that this ranges from about one hour or less per day for light viewers to as much as six hours per day for heavy viewers.[5] The range for potential exposure to commercials is thus about 5,400 to 32,600 per year or about 14 to 86 per day. Of course, the great majority of children will be well within these ranges, but the estimates do indicate the difference between heavy and light viewing within age groups in terms of volume incidence figures.

3. *Clustering effects.* The normal practice is to distribute children's commercials in "pods" throughout children's programs rather than to cluster them at the beginning or end. Usually this means that a maximum of three or four commercials is presented during a single program interruption. For example, if we assume a 9.5-minute limit per hour, with all of those 9.5 minutes filled with 30-second commercials, plus the two breaks allowed during programs, a typical schedule might be 4, 3, 3, 3, 3, 3, commercials over a one-hour period.

The only stations to depart from this distributed format are, as far as we know, the four Post-Newsweek Stations (PNS).[6] On children's programs, PNS clusters the commercials between half-hour or one-hour program segments with no in-program interruptions. A typical one-hour PNS schedule would be 6, 6—six commercials prior to a half-hour program and six at the end of the half hour.[7] Although most unlikely, it is theoretically possible within current NAB and FCC rules that a cluster of 19 consecutive 30-second commercials could be shown.

4. *Repetition effects.* Repetition, in terms of incidence, refers to the frequency with which a particular commercial is shown. The content analyses by Barcus (1975a, b, c) happened to include as appendices the number of times particular commercials were aired during his content sampling periods. One report (Barcus, 1975b) covered weekday programming between 3:00 p.m. and 6:00 p.m. on ten independent and network affiliate stations. Over the week of afternoon programs the average (median and modal) commercial was shown only once, only 4.6 percent exceeded a once-a-day rate and only 0.8 percent exceeded the twice-a-day rate, with a maximum of 14 showings of one commercial over the five-day period. Another report (Barcus, 1975a) covered the period from 7:00 a.m. to 1:30 p.m. one Saturday and Sunday in April 1975 on five stations—three network affiliates and two independent stations. Over the two-day period, the median commercial was shown twice, although the modal (most frequent) figure was once; 40 percent of the commercials exceeded a once-a-day rate and 14.7 percent exceeded a twice-a-day rate, with a maximum of ten showings for one commercial over the two-day period. The third Barcus report covered two consecutive Saturday mornings in November 1975—the peak pre-Christmas period for children's advertisers—on the three network affiliate stations. Over the two-day period the average (median and modal) commercial was shown once, 21.8 percent exceeded a once-a-day rate and 8.2 percent exceeded a twice-a-day rate, with a maximum of 17 showings, for a motion picture promotion, over the two-day (one week apart) period.[8]

However, these frequency counts covered overlapping or simultaneous programing by ten, five, and three stations, respectively. A child would have to be an almost impossibly avid "channel switcher" to encounter this many repeats of a commercial. More reasonable incidence estimates for *potentially encountered repetitions* are obtained by allowing for total possible individual viewing within the content periods and correcting them to daily rates. Based on these corrections the probable repetition rates are as follows.

[5]This is a range estimate, precise variance figures are not available.

[6]These stations are located in Hartford, Conn., Washington, D.C., Jacksonville, Fla., and Miami, Fla.

[7]PNS also limits commercial time to six minutes per hour in children's programing timeslots.

[8]Note station i.d.'s and promotions for the stations' *own* programs were excluded from our tabulations.

Table 8-1

	Typical weekday afternoon (3-6 p.m.), 1975	Typical Saturday or Sunday morning in April 1975	Typical Saturday morning in November 1975
Maximum single commercial rate assuming continuous viewing	1.4 times per day	2.0	1.8
Typical (modal) single commercial repetition rate assuming continuous viewing	.1 times	.2	.8

In other words, the average child is only likely to be presented with even the most frequently run commercial about twice in one day on a weekend or seven times over a five-afternoon weekday period.[9] A few commercials, then, might be encountered about twice a day. On the other hand, the *average* commercial would be encountered only once every ten days on weekday afternoons and about once every five weekend mornings. These figures indicate that most commercials (60 to 80 percent) on children's programs would be encountered approximately once a week for as long as they are run.

Note that the preceding estimates provide no data on repetition rates during *adult or prime time* programs. They show only the estimated repetition rate for commercials appearing during program time set aside for children on weekend mornings and weekdays after school. Moreover, the data do not indicate the *total number* of times that an average child is likely to encounter a particular commercial. We can estimate daily or weekly frequency rates, but we cannot estimate total frequencies from the available data. This would require a month-by-month analysis of advertising insertion schedules (for example from *Broadcast Advertisers Reports*) and is beyond the resources of the present report.

One final repetition incidence statistic is also germane. A fairly common measure of commercial effectiveness is brand name recall. Brand name recall might be influenced not only by the number of times a commercial is repeated but also by the number of brand name repetitions *within* the commercial itself. A content analysis of commercials appearing during children's programs in 1972 and 1973 (Atkin and Heald, in press) indicated that verbal (audio) repetitions of the brand name averaged 3.65 per commercial; most commercials used between two and four repetitions, only a few used one, but about one-fourth used five or more brand name repetitions per commercial.

RESEARCH EVIDENCE

1. *Long-term Exposure Effects*

In this section, we shall review studies which have compared children's responsiveness to television commercials across age groups. That is, we shall regard age as an index of cumulative exposure to commercials. Since the studies are cross-sectional, cumulative, age-related effects are inferred rather than longitudinally observed within the same child or group of children.[10]

Various effects have been examined as a function of age, and there are different ways in which these could be organized for discussion. We have chosen to distinguish four categories of effects: (1) *cognitive effects*, which are relevant to the question of potential deception or "deceivability"; (2) *affective effects*,

[9]These maxima could be exceeded if an advertiser were to buy a concentrated time block on a single network. Probability of exposure would still be close to these estimates, however, due to channel switching between programs.

[10]The widely heard criticism of the "lack of longitudinal studies" is not as serious as it sounds. Longitudinal studies are of more theoretical than practical interest. For practical purposes such as policymaking, cross-sectional studies are quite sufficient. Reasons for this are developed in the section on Needed Research.

which are relevant to the question of children's feelings toward commercials and toward television advertising as an institution, (3) *behavioral effects*, which are perhaps most relevant to allegations centering on children's "susceptibility to persuasion," and thus to fairness considerations; and (4) *consumer socialization effects*, which are relevant to the assessment of television advertising's contribution to children's general development as consumers

Cognitive effects. Three types of cognitive effects attributable to cumulative exposure to commercials have been studied. The first of these is attention Two major studies have shown that 8-11 year olds learn to pay less visual attention to commercials than 3-7 year olds This finding was originally established by Ward, Levinson, and Wackman (1972) in a natural observation setting and was replicated in laboratory settings by Atkin (1975b) However, Atkin notes that the decline in attention with age, although statistically significant, is only about two seconds less per 30-second commercial Also, the studies monitored only visual attention whereas auditory attention is also relevant. In fact, brand name recall, a response that could be learned entirely through auditory attention, increases about 100 percent with age (Atkin, 1975b).

Of particular interest is the additional finding by Atkin that recall of message elements in commercials also increases significantly—about 50 percent—with age Since message elements involve both visual and verbal stimuli, auditory attention alone could not account for this phenomenon It seems likely that older children are capable of "processing" commercials faster and consequently have less need to pay much attention during subsequent exposures.[11] The attention question could be resolved with a simple experiment in which the treatments consist of new versus familiar commercials and the measures comprise auditory as well as visual attention.

From a policy standpoint, attention is not a very important response Concern about the cognitive effects of commercials has rarely centered on how attention-getting they are Attention is merely an assumed but necessary condition for more serious effects, such as whether children's trust in commercials, or their understanding of commercials, increases or decreases with cumulative exposure.

Children report that they trust commercials less as they see more of them. This finding holds for commercials in general and seems also to be true for specific commercials The percentage of children who trust *all* commercials was shown to decline from 65 percent at the 1st grade level to 27 percent by 3d grade and 7 percent by 5th grade (Robertson and Rossiter, 1974). For specific commercials, Atkin (1975b) found a significant negative correlation of $r = -.51$ ($p < .001$) between the age of the child and the believability ratings of three claims in two commercials. Robertson and Rossiter (1974) hypothesized that the decline in trust is based on children's increasing propensity to attribute "persuasive intent" to commercials. Note that the decline in trust or believability with age, or an increase in attribution of persuasive intent, does not necessarily mean that commercials are any less effective—a point which we will discuss later

Perhaps the most important cognitive effect is children's ability to *understand* commercials as a function of cumulative experience. Rossiter and Robertson (1974, 1976b) examined children's understanding of the conceptual basis of television commercials in terms of six variables which measured children's ability (1) to define the difference between television commercials from television programs, (2) to comprehend the existence of an external message source or sponsor; (3) to perceive the existence of intended target audiences for commercial messages; (4) to identify informative intent in commercials, (5) to identify persuasive intent in commercials, and (6) to understand their symbolic representational characteristics Total cognitive understanding of commercials was highly correlated with age ($r = .45$, $p < .001$) Further analysis (Rossiter and Robertson, 1976b) demonstrated that age and cumulative experience accounted for 40 percent of the variance in cognitive understanding, while differences in social background accounted for only 9 percent Using a similar but partial set of measures, Ward, Wackman, and Wartella (1975) also found a highly significant increase in children's cognitive understanding of commercials as a function of age

It is clear that, for the average child, cumulative exposure to commercials has a definite positive relationship to his or her cognitive understanding of

[11] Faster "processing" could mean better acquisition and retention of information or simply better ability to recall the information, or both

what commercials are and what they are supposed to do. This effect might be due, of course, not only to experiential learning, but also, following Piaget's theory, to age-related increases in children's cognitive abilities Indeed, it is possible to regard these cognitive measurement results as "structural" evidence for the proposition that children are less likely to be susceptible to deceptive advertising practices as they grow older

Affective effects Apart from the question of whether children understand commercials is the question of whether children *like* television commercials, and how these "institutional" feelings change with age. An impressive body of studies has documented that children's overall affective response, or "liking," towards commercials in general declines significantly with age (James, 1971; Blatt et al , 1972; Robertson and Rossiter, 1974; Ferguson, 1975, Bever et al , 1975) For instance, the percentage of children who indicated that they liked *all* commercials was shown in one study to decline from 69 percent at 1st grade to 56 percent by 3d grade and 25 percent by 5th grade (Robertson and Rossiter, 1974) This affective decline seems to hold for specific commercials as well as for commercials in general. Atkin (1975b) measured children's overall liking for three specific commercials and found a negative correlation of $r = -.35$ ($p < .001$) with age. Atkin's research did turn up one contrary result Younger children are significantly more likely to display irritation while watching commercials. However, this finding stands in minor contrast to the overwhelming negativity of children's expressed affect toward commercials as children grow older.

Behavioral effects. An obvious question, given the increase in children's cognitive understanding of commercials with age and their increasingly negative feelings toward them, is whether commercials have any less *behavioral* impact on children as they grow older This is not an easy question to answer. One problem is the distinction between intended behavior and actual behavior. Commercials may instill intentions or desire for an advertised product, but the execution of these intentions in most cases requires the child to make requests to parents. This obviously introduces other variables pertinent to the requesting behavior, and these other variables may have little to do with the impact of the commercials per se. Nevertheless, let us examine the evidence for both of these effects

The evidence on intended behavior as a function of age is dependent on the nature of the research measure. An early study by Robertson and Rossiter (1974) asked children whether they wanted *all* products they saw advertised on television Responses indicated the expected age-related decline: 53 percent said yes at 1st grade, 27 percent at 3d grade, and only 6 percent answered affirmatively at 5th grade. However, a more moderate question used by Ward et al. (1975) asked children whether they wanted *most* things shown in television commercials A slightly broader age range was sampled, which makes the results even more interesting: 66 percent of kindergarten children said yes, 51 percent of 3d graders said yes, and a marginally lower 49 percent of 6th graders said yes. Moreover, when asked whether commercials "made them want to have things," the children in the Ward et al study exhibited an apparent *increase* in perceived motivation with age: affirmative answers by age group were kindergarten, 67 percent, 3d grade, 87 percent, and 6th grade, 84 percent Consequently, the weight of evidence for a decline in advertising-induced intentions with age and cumulative exposure is slight at best.

Evidence on the ensuing behavioral effects of request frequencies is also far from clear-cut Robertson and Rossiter (1974) found a decrease in request frequency with age; however, the study focused on pre-Christmas television advertising in which almost half of the advertised products were relevant as children grow older.[12] This criticism may also be applied to the frequently heard interpretation of a classic study by Ward and Wackman (1972) to the effect that children's request frequencies decline with age. Studying a wide range of products, these authors actually found only a nonsignificant tendency for request frequencies to decline with age ($r = .13$, an r of $\pm .16$ would have been required for significance at the 5 percent level).

Detailed inspection of the product-by-product data in the Ward and Wackman study indicates various trends by age depending on the product in question For example, requests for toys declined with age, but requests for bicycles increased. Requests for products which are presumably relevant

[12]Atkin (1975a) also found a decline in request frequency with age His measure centered on toys, cereals, and two individual commercials and is almost certainly biased in the same way

to children of all ages, such as snack foods and soft drinks—both heavily advertised—did not show any age-related decline in request frequency. This non-decline effect was substantiated in a later study by Ward et al. (1975) in which requests for food products were essentially constant across age groups (X^2, n.s.), whereas requests for "child-relevant" products such as toys and games, clothing, and record albums actually increased significantly with age (X^2, $p < .01$). The earlier Ward and Wackman study (1972) is much more comprehensive in terms of product categories and should probably be favored over the Ward et al. (1975) results. Neither study, however, revealed any general decline in request frequencies as a function of age and cumulative exposure to commercials.

Before interpreting request frequencies as data on "effects," we must consider the problem referred to earlier—namely, that this type of response is under the control of factors other than advertising-induced intent. One obvious factor is the extent to which parents acquiesce to children's requests and thus reinforce this form of behavior. The Ward and Wackman study (1972) found that parental acquiescence increases with the child's age ($r = .20$, $p < .01$). To provide a couple of illustrative trends for products relevant to children of all ages: The percentage of mothers who said they usually yield to children's requests for snack foods was 52 percent for 5 to 7 year olds and rose linearly to 77 percent for 11 to 12 year olds; comparable acquiescence figures for soft drink requests were 38 percent and 54 percent. Another "extraneous variable" hypothesis might be that peer influence or other nonadvertising experiences might induce request behavior. However, Ward and Wackman's results indicated that the role of television advertising in the requesting process was relatively constant across age groups ($r = -.14$, n.s.). That is, television advertising did not seem to be displaced by peer influence or other factors. It therefore appears that parental acquiescence or reinforcement exerts a significant influence on children's request frequencies, and that since reinforcement increases with age, we should discount the earlier implication of a constant *advertising-induced* request level. A more accurate projection, adjusting for the effects of extraneous reinforcement, would be a slight decline in request levels. Thus, the safest conclusions from the available evidence are that the long-term exposure effect of commercials is to reduce children's intentions or desire for advertised products only slightly and to produce a correspondingly slight reduction in the frequency of advertising-induced requests to parents.

How is the slight decline in behavioral effects with age to be reconciled with the marked increase in children's cognitive understanding of commercials and with the equally marked decline in their affective feelings toward commercials? In the case of increased cognitive understanding, the most parsimonious explanation would involve abandonment of the implicit hypothesis that children who understand commercials better will be less affected by them. This hypothesis assumes that commercials are in some way "bad," that they are not supposed to persuade children to want the advertised products, or that children become poorer judges of advertised products as they grow older. All are questionable assumptions, and there is not necessarily any incompatibility in increased cognitive understanding *not* producing a decline in behavioral responsiveness.

In the case of children's increasingly negative feelings toward commercials, it is possible that children are merely learning an "institutional" response from their parents or peers. Certainly, it is the accepted thing to criticize commercials. However, this criticism may be somewhat superficial and may apply mainly to commercials *executions* rather than to the products advertised. Rossiter and Robertson (1976) have explored this and other reasons why children's attitudes toward commercials in general do not necessarily bear any relationship to their attitudes toward advertised products in particular.

In sum, long-term exposure effects (or, more conservatively, long-term exposure correlates) include a marked increase in children's cognitive understanding of television commercials, an equally marked increase in children's negative feelings toward television advertising as an institution, and only a slight decline in children's behavioral responsiveness to commercials. Note that these results imply that children do not become more susceptible to persuasion as they accumulate experience with commercials. This conclusion holds regardless of whether one chooses to attribute the slight decline in persuasibility with age to cognitive development or to experiential learning. Both factors are probably involved.

Consumer socialization effects We may also whether, in the long term, television advertising contributes to children's broader understanding of the economic environment and to the development of consumer knowledge and skills. Here, of course, it is particularly difficult to isolate the role of television commercials from other socialization forces. However there is no doubt that television commercials play a large role—if only to initiate children's consumer behavior—at all age levels We can therefore examine age-related trends with a fair amount of confidence that we are monitoring long-term advertising effects, albeit in a multiple influence context (The role of television commercials can be isolated with more confidence when examining heavy and light viewer differences See the following section)

One effect in which television commercials are clearly implicated is children's satisfaction with choices they have made in favor of specific advertised products Television commercials presumably generate expectations about the product and its attributes Therefore, if children experience greater dissatisfaction with television advertised products as they grow older, it could be contended that commercials contribute negatively to children's consumer socialization

Research findings conflict on this point Ward, Wartella, and Wackman (1975) reported data that seemed to indicate an age-related increase in dissatisfaction from 38 percent for kindergarten children to 75 percent for 6th grade children However, their research question was whether the children had *ever* seen something on television that, when they got the item, was not as good as they had expected Clearly such a question provides no evidence on the incidence of dissatisfaction, it merely offers the unsurprising result that older children are more likely to have had at least one unsatisfactory experience of this kind. Robertson and Rossiter (1976) measured aggregate satisfaction with products received as Christmas presents They found an increase in satisfaction with age from 84 percent at 1st grade to 95 percent at 5th grade (significant at the 01 level) However, these figures reflect satisfaction with products that were not always advertised on television (this was especially true for the older children) Thus, findings on children's satisfaction with product choices remain equivocal at this juncture

An alternative way of assessing the impact of television advertising on children's satisfaction with product choices is to examine children's disappointment or frustration when advertising-induced requests are denied. The results of two studies suggest that, cumulatively, advertising does not increase disappointment or frustration levels Robertson and Rossiter (1976) found that disappointment over nonreceipt of requested items declined with age although the actual relationship was slightly curvilinear 37 percent at 1st grade, 41 percent at 3d grade, and 25 percent at 5th grade These findings are subject to the earlier comment regarding television advertised products which decline as a proportion of choices after 3d grade The comment also applies to the study by Atkin (1975c) which found a nonsignificant correlation (r = 04) between age and reported "conflict and anger" over denial of requests for two products heavily advertised on television—toys and cereals. It is not clear whether disappointment declines because fewer requests for these products are made or whether children become more capable of coping with denial

Consumer socialization effects have been measured in a more ambitious manner by Ward, Wackman, and Wartella (1975) Based on age as an index of cumulative exposure to commercials, as well as other types of experience, various consumer skills were found to increase from kindergarten to 6th grade. Predictably, for example, the number of brands with which children were familiar was found to increase with age This held for four product categories, two of which (soft drinks and gum) are fairly heavily advertised on television Interestingly, children's perceptions of brand differentiation within product categories *decreased* with age Again, this held for television advertised products (e g , toothpaste, peanut butter) Although the authors interpreted this trend as reflecting a decrease with age in the strength of brand preference, it could also be interpreted as reflecting children's increasing recognition of "parity" status between closely competing brands—which is probably a realistic assessment of many such products

Ward et al (1975) also took another measure which might be affected by television advertising—awareness of multiple sources of information about new products Ward et al 's discussion of these data implied that children learn to use more sources of information as they grow older However, their data

actually indicated that older children rely more heavily on *television commercials* as a source of new product information. To illustrate, let us take one of the product categories, snacks, which has wide age-related appeal.[13] Children nominated the following as a source of information about new snack products, with multiple responses allowed

Table 8-2

Information Source	Kinder-garten	3d Grade	6th Grade
In-store observation	68%	78%	76%
Interpersonal information	18	24	25
Mass media	32	65	71
(TV's contribution)	(28)	(55)	(60)

It is hard to interpret these data simply as reflecting a more rational multi-source search strategy as children grow older Rather, the main trend appears to be the increase in the importance of television as a source of product information.

In any case, it is far from evident that any substantial consumer skills are attributable to children's cumulative experience with advertising This is partly because of lack of measurement and partly because of questionable measurement Consumer skills develop with children's cumulative experience with products As we shall see in the next section of the discussion, there is no evidence that advertising contributes to this process other than perhaps, in quite a few cases, to initiate it

One final consumer socialization effect centers on the allegation that cumulative exposure to television commercials leads to materialism. "Materialism" is generally used to mean a preoccupation with money and possessions For children this refers to a belief or value-orientation rather than to acquisitive behavior per se, since the latter is usually beyond a child's control Two studies have attempted to measure materialistic orientation as a function of age ,Atkin, 1975c, Ward et al , 1975) Both found a significant *negative* relationship indicating that materialism apparently decreases as children grow older. Despite the convergence of findings, however, the measures of materialism in both cases are such that naive answers as well as materialistic ones could produce high scores [14]

Some evidence that materialism may be at least temporarily instigated by commercials was provided in an experiment by Goldberg and Gorn (1976). Children (ages 4 and 5) were randomly allocated to test conditions in which they did or did not see commercials for the "Ruckus Raisers Barn" (a toy) in the context of a 10-minute neutral program. The children were then shown separate pictures of two boys, with one of the boys empty-handed and the other holding the Ruckus Raisers Barn in front of him. As the experimenter showed a child the two pictures, he would say

> I can bring one of these two boys to play with you. I can bring this boy who is not so nice and you can play with him and his Ruckus Raiser Barn, or I can bring this boy who is nice. Would you like to play with the nice boy, or would you like to play with the boy who is not so nice and his Ruckus Raisers Barn"

Some 70 percent of the control group (who had not seen the commercial) opted for the "nice boy," while only 35 percer of those who viewed the commercials chose the "nice boy " This difference was still significant (although smaller) when subjects were retested 24 hours later.

The researchers speculated that if commercials can encourage a willingness to disregard negative social values in the short term, they may do so in the long run as well. This study raises some hypotheses that bear further examination with a wider range of operational constructs, a more varied population,

[13]The two other categories in the study were toys and clothes which probably have decreasing and increasing appeal respectively across the kindergarten to 6th grade age spectrum

[14]Atkin (1975c) used a composite measure consisting of preference for a brand name cereal (suspect on face validity grounds and probably biased toward younger children), belief that toys produce happiness and enjoyment in showing off products Ward et al (1975) used an "average" of 4-point ratings of agreement with three items (1) "Do you think people would be lots happier if they had more things like color TV's and big cars?" (2) "When I grow up the most important thing is to have lots of money " (3) "Do you think that to *really* be happy when you grow up you *have* to have lots of money?" The last item appears to be redundant and might well encourage a child who gave a "nonmaterialistic" answer to the second item to compound it in self-justification The reader is left to evaluate the probable validity of both of these indices of materialism

and most importantly, a longer term measurement of a child's development At present, the materialism issue—and especially its long-term implications—is best regarded as unresolved

2. *Heavy Viewing Effects*

So far we have examined volume effects in terms of the average child's responses at each age level Earlier we noted that there is considerable variation in the volume of exposure to television advertising within each age level. We now turn to a consideration of the effects of television commercials as a function of television exposure while holding age constant, to see whether the heavy viewers differ from light viewers in their responsiveness to commercials. Once again, we shall organize our analysis in terms of cognitive effects, affective effects, behavioral effects, and consumer socialization effects.

Cognitive effects. In the previous section, we discussed three cognitive effects—attention, trust or believability, and overall cognitive understanding of commercials It seems ipso facto true that heavy television viewers pay more attention in total to commercials than light television viewers This does not mean that heavy viewers necessarily pay more attention to each commercial, but simply that heavy viewing is likely to result in a greater aggregate volume of attention to commercials

Heavy child viewers tend to place more trust in commercials than light viewers. Based on believability ratings of two commercials, Atkin (1975g) found a correlation of r = .22 ($p < .01$) with television exposure.[15] No corresponding finding has been reported for commercials in general, but such a finding as implied in correlations between television exposure and attitude measures which include believability or trust scales

The third cognitive effect, children's understanding of the general concept of commercials, does not appear to vary with exposure to television commercials Using the six-variable measure of cognitive understanding described previously, Rossiter and Robertson (1974) found a nonsignificant correlation of r = − 06 with television viewing Further analysis by the same authors (1976b) indicated that exposure differences accounted for less than 4 percent of the variance in cognitive understanding compared with 40 percent for age and 9 percent for social background

Affective effects Heavy viewers tend to have more favorable attitudes toward television commercials Children's attitudes toward commercials become more negative as they grow older, but heavy viewers *within* age groups hold more positive attitudes than their peers. For example, Rossiter and Robertson (1974) found a significant correlation of r = 10 ($p < .05$) between attitudes and television exposure with age held constant. (The measure of attitudes in this study included trust, liking, and behavioral intention scales.) Similarly, Atkin's research with specific commercials found a correlation of r = .30 ($p < .01$) between liking and exposure For older children at least, it seems improbable that liking of commercials "causes" television viewing Surely, interest in programs leads to viewing. Therefore, it is a fairly safe assumption that, for commercials, the direction of cause and effect is from exposure to attitudes.

Behavioral effects Heavy viewers expressed stronger behavioral intentions toward television advertised products In November and December of each year, even children who are normal viewers become "*de facto*" heavy viewers of commercials for toys and games (Barcus, 1975c) A study focusing on pre-Christmas advertising by Robertson and Rossiter (1976a) found that the proportion of such toys and games in children's top-five Christmas requests increased by 5 percent over the heavy advertising period. This increase occurred at all grade levels—1st, 3d, and 5th—a result significant at the .05 level, with no age x effect interaction.[16] Correlations between choices and various information sources indicated that exposure to toy and game commercials was the dominant causal factor

The increase in children's behavioral intentions as a function of pre-Christmas advertising exposure was paralleled by another behavioral variable: request frequencies Atkin (1975g) found a similarly

[15] All correlations reported in this section in conjunction with Atkin's research are fourth-order partials That is, they reflect the correlation between the variable in question and television exposure *controlling for* or partialling out the effects of the following factors age, sex race, and school performance (an approximate surrogate for intelligence) Atkin's television exposure measure is based on reported viewing of Saturday morning children's programs (Atkin, 1975g)

[16] A conservative formula was used to compute the 5 percent figure The normal "percentage increase" interpretation would have been about 8 to 10 percent grade level

significant correlation between television exposure and request frequencies for toys and cereals ($r = .29$, $p < .01$).[17] Both the Atkin study and the Robertson and Rossiter study focused on products of more relevance to younger children. This is not a confounding factor, however, since with heavy exposure effects, we are dealing with differences within particular age groups

In sum, the evidence from these various measures of cognitive, affective, and behavioral effects suggests that heavy viewers, in the main, respond more favorably to commercials than their light viewing peers

Consumer socialization effects Earlier, we looked at children's satisfaction with advertised products as an indicator of whether exposure to commercials in volume affects their apparent ability to judge them It was shown that satisfaction with advertised products increases with age. However, the same research study that provided the evidence for this conclusion (Robertson and Rossiter, 1976a) also found that, within age groups, satisfaction was lower among those children who were above average television viewers[18] Although the overall results were statistically significant ($p < .05$), a more detailed breakdown indicates that the heavy viewing effects were primarily located among the younger children

Table 8-3

	Satisfaction with toys and games received at Christmas among:	
	Light viewers	**Heavy viewers**
1st grade	92%	76%
3d grade	92	90
5th grade	95	93

Since the measure of satisfaction asked children to state whether the products were better, the same, or worse than their expectations, it is reasonable to infer that expectations were inordinately raised among young children most heavily exposed to toy and game advertising. That is, heavy viewing 1st graders had the highest incidence of "disappointment" or below expectancy ratings (24 percent). The data also suggest that by 3d grade, heavy viewers have learned to develop more realistic expectations about products—probably due to greater experience with products as well as greater cognitive understanding of commercials. This is an example, therefore, of a volume effect which seems to apply only to a particular age group—in this case, the youngest children

Results from the Robertson and Rossiter (1976a) study also indicated that heavy viewers experienced more disappointment over *nonreceipt* of advertised products ($p < .01$) Again this effect was strongest among the younger age groups

Table 8-4

	Disappointment over nonreceipt of requested toys and games	
	Light viewers	**Heavy viewers**
1st grade	30%	44%
3d grade	39	44
5th grade	24	27

A contrary result was reported by Atkin (1975g). In his study, he found a nonsignificant relationship between children's viewing levels and "conflict and anger" reported by mothers following denial of requests for toys and cereals A likely explanation of the discrepancy in the findings is that Robertson and Rossiter focused on Christmas present requests, whereas Atkin focused on requests throughout the year. One could argue that expectations of receipt are considerably higher at Christmas time. Also, since many of the younger children's requests were made to "Santa" rather than to parents, there may have been less reluctance to admit disappointment in the Robertson and Rossiter study A contrary possibility is that the reporters in Atkin's study (parents) may have been more reluctant to admit disappointment by their own children

The safest conclusions from these results are that under conditions of a very high volume of advertising (i.e., commercials for toys and games at Christmas), heavy viewers in the younger age groups are more likely to have their expectations about

[17] Unfortunately the major study of children's request frequencies (Ward and Wackman, 1972) did not include television exposure as a variable These investigators did find a very high correlation between 'perceived influence of commercials' and request frequencies as reported by mothers but as the authors observed, the obvious circularity of cause and effect here renders this result spurious

[18] Heavy and light viewers were divided at the median in this study

products raised by advertising. Accordingly, they are more likely to experience less satisfaction with products they receive and more disappointment over those they do not receive. It is not known to what extent these heavy viewing effects hold under normal volume conditions

Turning now to the effects of heavy viewing on children's consumer knowledge and skills, we would expect that if television commercials contribute positively to this type of socialization, heavy viewers would be standouts within each age group. In their study of kindergarten, 3d grade and 6th grade children Ward, Wackman, and Wartella (1975) included television exposure with 24 other variables in an attempt to predict various consumer skills via regression analysis. Unfortunately, the investigators employed some recombinations of the original items in their survey and it is impossible to determine from their report exactly which items ended up in which particular new or "hybrid" variable. Even if we assume that the recombinations are meaningful, the results provide little evidence that frequent exposure to commercials facilitates acquisition of consumer skills by children. Sixteen skills areas were used as dependent variables and separate regressions were conducted for each of three age groups. Of the resultant total of 48 regressions, television exposure appeared in 16 of the equations as a significant predictor variable.[19] However, in half the cases, the relationships were negative, indicating that heavy exposure to commercials was associated with *poorer* acquisition of consumer skills. Moreover, there was no systematic pattern underlying the other half of the cases in which exposure showed positive relationships with consumer skills. Because of the relative failure of the television exposure variable for two-thirds of the "consumer skills" equations, and because in the remaining third it showed contradictory results, it is impossible to conclude that heavy exposure to commercials produces any consumer socialization benefits

On the supposedly less beneficial side, let us briefly reexamine the issue of materialism We may recall that, despite the questionable validity of the measures, both Atkin (1975g) and Ward et al (1975) provided data suggesting that materialism decreases with age. However, holding age constant, further analysis by Atkin indicated that materialism was positively related to television exposure ($r = .10$, $p < .05$). As remarked earlier, much better instruments are required for measuring consumer values such as materialism, but the finding seems worthy of mention for future investigation.

Atkin (1975c) also reported another set of findings which cast a somewhat different light on the heavy exposure phenomenon We noted in the previous section that children who are heavy viewers express more favorable attitudes toward commercials—trusting them more, liking them more, and being more likely to respond favorably to them. These attitudes should work both ways. It might be expected that heavy viewers should also respond more favorably toward "prosocial" commercials Atkin tested children's reactions toward three public service announcements which advocated, respectively, use of seat belts, avoidance of littering, and emphasis on nutrition rather than sugar in foods. Heavy viewers were no more likely than light viewers to endorse the positions advocated in the commercials

In sum, indications are that heavy exposure to television commercials (within age groups) tends to predispose children to respond favorably or more strongly to "regular" commercials, but that this does not generalize to their responsiveness to "prosocial" commercials. Nor does heavy viewing appear to result in extended benefits such as faster acquisition of consumer knowledge and skills.

3. *Clustering Effects*

Proponents of clustering children's commercials in blocks between programs argue that this practice would help children to distinguish advertising material from program material. Two studies have been conducted on clustering effects. Atkin (1975b) tested children's reactions to seven commercials in a single clustered presentation versus the same commercials distributed in four groups: once before, twice during, and once after a half-hour program. Duffy and Rossiter (1975) used a somewhat more representative format in that the cluster condition was taped from an actual Post-Newsweek children's program. Fourteen 30-second commercials appeared around this program, six in a cluster beforehand and eight in a cluster afterward. A distributed version of the presentation was constructed

[19] Ward et al (1975) tallied 21 instances in which television exposure entered the regression equation However inspection of their data reveals that only 16 of these involved coefficients significantly different from 0 at $F(24,200)$ which are the approximately applicable degrees of freedom for their study

by distributing the commercials in a 3, 4, 4, 4 sequence before, after, and at two logical breaks within the half-hour program, preserving the original order of the commercials

Neither study can provide unequivocal evidence for or against the hypothesis that clustering aids program-commercial separation (see Chapter 1), because neither methodology employed "in process" discrimination measures The Duffy and Rossiter study attempted to infer discrimination based on shifts in the children's visual attention between the last two minutes of program preceding each onset of commercials and the commercials themselves. Among the youngest children in the study (1st graders) the clustered format, which included an audio commercial warning, actually produced a smaller attention shift between program and commercials than the version with regular distribution. To the extent that visual attention is an indicator of discrimination, no evidence was obtained in favor of the hypothesis that clustering aids children's program-commercial discrimination ability. This finding should not be accepted as conclusive, however, in the absence of corroborating evidence from more direct measures of discrimination

Both studies were able to provide evidence relevant to the "advertisers' hypothesis" that clustering produces poorer commercial performance Two measures frequently used by advertisers are audience ratings—a rough, relative measure of attention—and recall scores Atkin (1975b) found that clustering actually produced significantly greater visual attention than the normal distribution Duffy and Rossiter (1975) found that clustering produced slightly, though not significantly, greater visual attention among 1st graders but significantly less attention among 4th graders.[20] Paradoxically, the result for the older children seemed to be due not so much to the commercials as to apparent irritation with the long stretch of *program* occasioned by the clustered format, perhaps older children have become used to commercial breaks. In any case, if younger children are the main subject of concern, it seems that clustering does not affect attention and may actually increase it.

The other measure of interest to advertisers is commercial recall. Adult research by Weik (1974) indicated in a laboratory study that the clustering of more than six commercials in a series leads to a significant drop in brand name recall for commercials which follow the sixth. However, this finding is contradicted by field research which indicated no differences in recall when up to eight commercials (the maximum number studied) are clustered together (Ephron, 1975). The children's studies by Atkin and Duffy and Rossiter support the no-difference contention. Neither study found any difference in brand name recall for the clustered versus distributed presentations.

Ephron also presented a Gallup and Robinson field recall study which showed a deleterious effect if commercials for competing brands within the same product category appeared within 30 minutes of one another. Since the closer the two commercials were together, the weaker the recall, it appears that clustering could be detrimental for competing brands, although not for noncompeting brands. Neither of the children's studies was in any way extensive enough to test this idea—an important one from the advertiser's standpoint.

Another problem in all of the recall data cited above is that none of the studies investigated clustering effects for new commercials versus familiar ones. It is quite possible that, at the time at which the clustering effects were measured, familiar commercials could already have attained their peak recall levels from previous exposures. In this respect, the clustering manipulation, particularly in the experimental studies might be quite superfluous since recall may actually have been attained under unclustered, or at least differently ordered conditions. A totally new commercial that appeared regularly in the middle position of an extended cluster might well have its recall performance reduced.

In sum, the evidence on clustering as a (short-term) volume phenomenon is inconclusive. Clustering does not appear to help children to discriminate between commercials and programs, but more valid measurement is needed before this primary argument in support of clustering is settled. Similarly,

[20]The Ward, Levinson, and Wackman (1972) study of children's visual attention provides a field validation of the Duffy and Rossiter attention measure Ward et al 's study was a naturalistic survey conducted during in-home viewing. Duffy and Rossiter's study was conducted in a potentially "artificial" classroom setting Yet, using identical rating systems, the two studies yielded highly similar attention scores (see Duffy and Rossiter, 1975)

there seems to be little evidence to support advertisers' fears that clustering will affect the performance of individual commercials, but neither can they put to rest since *new* commercials and competing brands have not been studied in the clustered format proposed for children's advertising

4. *Repetition Effects*

Our final topic in the area of volume and repetition is repetition, which is defined as frequency of exposure to a single commercial rather than to commercials en masse. There are two principal allegations concerning repetition of individual commercials. One is that repetition leads to stronger persuasion effects. This is an allegation that interests advertisers as well as critics of advertising, and we can review the evidence for this contention without regard to whether stronger persuasion is valued as desirable or undesirable

The second allegation is that repetition produces "irritation." There has been no research on repetition and irritation with children's commercials, although Greyser (1973) reported this to be a frequent complaint about commercials among adults. We shall regard irritation as being a secondary effect of repetition and one that is rather arbitrarily and subjectively defined.[21] In any case, as mentioned, there is no children's research to review. Of more interest and importance is the first allegation: the relationship between repetition and persuasion.

Incidence of repetition estimated from the Barcus data earlier suggested that the average child sees most commercials (60 to 80 percent) at a rate of about once a week, but that some may be seen as often as twice a day or more Does *rate* make a difference? Secondary evidence from a review of learning research indicates that "learning proceeds at just about the same rate regardless of the interval of time that elapses between successive responses" (Hulse, Deese, and Egeth, 1975). For "responses" in our case, we may substitute "attentional exposures" as the type of response relevant to commercials.[22] Pending first-hand evidence from studies of children's commercials it therefore seems extremely doubtful that differences in repetition *rate*, at the frequency that children are likely to encounter them, would make any difference in terms of learning whatever is advocated by the commercial.

A second parameter is the number of repetitions. We could not estimate from the incidence data how many times children see particular commercials. However, we may guess that 10 times is a fairly typical figure and that three or four times might be a minimum figure unless the commercial is backed by an extremely light media expenditure. Secondary research in learning (Hulse et al., 1975) again suggests that the number of exposures may not make much difference—at least for learning. In fact, some theorists have recently argued that the effect of repetition is not so much to increase learning as to *prevent forgetting*. That is, many of the fairly simple responses associated with children's commercials—e.g., brand names and basic brand attributes such as appearance, vitamin content, or premium offers—may be learned in just one or two trials, and the effect of further repetitions would be to ensure that the child "re-remembers" what was originally learned and might otherwise forget.

This theory has interesting implications. Besides proposing that repetition may make a child less likely to forget a brand name, it also suggests that repetition would not be likely to change a child's attitude toward the brand, since what would be remembered would be the originally learned attitude Thus, unless we are willing to accept an argument to the effect that brand name recall is a sufficient definition of persuasion rather than the commonly understood definition involving a change in attitude or behavior, it is possible that repetition—or at least beyond one or two exposures—actually has no effect on persuasion. In fact, this theory fits the available data remarkably well. Adult research in a number of studies by Ray, Sawyer, and Strong (see Ray, 1973) has shown that the effect of up to six

[21]For example, Greyser notes that people are far more likely to complain about commercials for product categories that don't interest them and to like equally repetitive commercials for product categories that do interest them People may also be more likely to remember commercials that irritate them despite the amount of repetition

[22]For the more theoretically inclined we should note that this conclusion applies only to operant learning and not to classical conditioning The response of paying attention to commercials, at least beyond initial attention, is clearly a voluntary or "operant" response

repetitions of a commercial is mainly to increase brand name recall. Measures of liking and intent to purchase the product are minimally affected by repetition.

Most "laboratory" studies of children's commercials reviewed in this report have shown the test commercial only once. The exception is Goldberg and Gorn (1974) who examined the effects of one versus three exposures to the same commercial. They found no increase in children's attitudes or choice behavior beyond the single exposure results. Another laboratory study by Atkin (1975c) produced interesting evidence on the *field* effectiveness of repetition. Approximately 100 4th and 5th grade children were shown a commercial for a well-known complexion remedy; half of this group saw it once, the other half twice, a few minutes apart. Another 100 or so children from the same sample base were not shown the commercial. Atkin analyzed the results in terms of those children who reported having already seen the commercial at home, versus those for whom this was an initial exposure. Correlations with the laboratory treatment variable (shown-not shown) were as follows:

Table 8-5

Effect measure[1]	Seen before at home	First Encounter
Information recall	.02	.22
Believeability	.02	.27
Liking of brand	-.07	.28
Intent to buy brand	-.08	.27

[1]Atkin's longer list of effects measures is summarized here and appropriate correlations are averaged for convenience of presentation (see Atkin, 1975c)

These results indicated that the "additional" lab exposure had essentially no impact on those children who had seen the commercial before. In contrast, "first time" viewers showed significant effects.[23] A separate analysis was conducted on those who saw one versus two lab exposures of the commercial. Again, consistent with the theory, the only effect of the multiple exposure was on brand name recall.

[23]Estimating the degree of freedom for these correlations at 50, with bivariate correlations an r of .27 would be significant at the .05 level

In sum, there is no evidence that either the *rate* or *number* of repetitions affects children's tendencies to be persuaded by a commercial. Number of repetitions can affect brand name recall, but neither attitudes nor desire for the product seem to be affected beyond one or two exposures.

Finally, there is the issue of brand name repetition *within* a commercial. Incidence figures put this at 3.65, on average, with perhaps a quarter of all children's commercials repeating the brand name five or more times (Atkin and Heald, in press). The Duffy and Rossiter (1975) study examined the relationship between audio brand name mentions and brand name recall. The correlation was effectively zero (r=0.06, n.s.). This could either be interpreted to mean that the recall aspect of the repetition theory does not hold for within-commercial repetition, only for separate exposures to a commercial, or that with familiar commercials, as these may have been, brand name recall had reached a ceiling. Even if brand name repetition were effective, brand name recall, as an effect, would not in our view constitute sufficient evidence of persuasion. It is, of course, conceivable that brand name repetition affects other responses such as attitudes or intentions; however, as discussed earlier, this seems unlikely. Also, repetition as a phenomenon "within" commercials has not, to our knowledge, been a really controversial issue compared with the more general phenomena of rate and number of individual commercial repetitions.

SUMMARY AND NEEDED RESEARCH

1. *Long-term exposure effects.* Perhaps the most impressive body of research on children's responses to television commercials has been that which documents the dramatic age-related increase in their cognitive understanding of the nature and purpose of commercials and the equally dramatic decline in their feelings toward television commercials as an institution. Paradoxically, however, their behavioral responsiveness to commercials—as reflected by stated desires for advertised products and by frequency of requests to parents for these products—declines only slightly over this childhood period. The paradox involves a real contradiction only if we assume that commercials should *not* be responded to. If most commercials children see are nondeceptive and promote bona fide products, there is no reason why increased cognitive understanding should reduce children's preferences for the products advertised (nor why lack of cognitive understanding should increase them). To hold other than

this view is to assume that deceptive practices and shoddy products are the rule in children's television advertising. Still, part of the paradox remains: why do children develop such negative attitudes toward advertising as they grow older?

The answer is probably just what it appears to be—the acquisition of attitudes toward advertising which are currently prevalent in society. There is no evidence that children generalize this attitude to the products promoted in children's commercials.

Still unresolved is the question of whether long-term exposure to television commercials increases children's consumer socialization. The studies in this area all suffered from either inconclusive demonstrations the role of advertising in the socialization process and/or poor dependent measures of consumer socialization phenomena. The solution to the first limitation involves more precise "tagging" of advertised versus nonadvertised items as well as comprehensive measurement of other variables that affect consumer learning besides television advertising. The role of television advertising could then be assessed through experimental or statistical controls.

The solution to the second limitation is to develop more valid and reliable measures of consumer socialization effects. The validity problem is complex, but we could proceed well beyond the current state of measurement by excluding measures with questionable face validity. The reliability problem is simple by comparison, since it involves basic procedures of an item analysis and measurement replication (see Rossiter, in press).

A type of research that is needed mainly for theoretical reasons is longitudinal measurement of commercial exposure effects on a single child Longitudinal measures could then be replicated with many children to provide a more generalizable picture. The predominant alternative, of course, is the reliance on cross-sectional methodology to infer longitudinal effects.

Indeed, cross-sectional research is quite satisfactory for most decisions faced by children's advertising policymakers. No one has yet mounted a convincing argument as to how or why longitudinal research would greatly improve our knowledge of advertising's effects on children. There is, in fact, little evidence in current research to suggest that longitudinal studies with individual children would yield results that are significantly different from those derived from representative figures for the "average" child at various age levels.

2. *Heavy viewing effects.* Heavy viewing effects are somewhat different from long-term exposure effects in that they focus on the effects of volume within age groups rather than on the cumulative volume across different age groups. Perhaps the most important conclusion in conjunction with heavy television viewing—and, by implication heavy exposure to commercials—is that such viewing does not retard children's cognitive understanding of advertising. On the other hand, heavy viewing does not accelerate it either. The evidence on cognitive understanding seems to be clearly in favor of some sort of Piagetian explanation in which developmental processes are dominant and stimulus experience, beyond a minimally typical level, does not seem to matter much.

However, heavy television viewers at each age level do tend to hold more favorable attitudes toward commercials and toward products they see advertised. This is especially pronounced at younger age levels, at least until 1st grade, and there is some evidence that this heavy viewer difference persists at a noticeable but diminished magnitude thereafter. But we cannot conclude that this apparent tendency for heavy viewers to be persuaded somewhat more often than their lighter viewing peers has anything to do with poorer *cognitive* capacity; this simply does not differ as a function of individual viewing levels within age groups.

A possible explanation is that heavy viewers tend to see more products, and more products that they like, so that their aggregate liking of commercials and aggregate total of expectations based on commercials is higher because of differential product-generated reinforcement. This explanation is supported by the supplementary finding that heavy viewers are no more favorably predisposed than light viewers toward commercials such as public service announcements which do not involve "likable" products. We must conclude from existing evidence that heavy viewers may be more often persuaded, since they see more commercials, but that this does not involve notions of deception or deceivability.

Robertson and Rossiter's research has offered the best measures of children's cognitive understanding of commercials to date because they are based on a comprehensive model of cognitive criteria developed from work by Paiget and Guilford. However, further refinement and testing would be a worthwhile endeavor because so many policy decisions in children's advertising have to do with deception and, specifically, with the capacity to be deceived or misled What we need is a valid and reliable test to establish this capacity.

The first study that should be conducted to "norm" such a test should involve girls as well as boys (the latter were the subjects of the original Robertson and Rossiter research) Other studies (e.g., Ferguson, 1975) suggest that across age groups, girls will not substantially differ from boys, consequently, the preceding conclusions did not allude to what would otherwise appear to be a deficient sampling base. However, this should be corroborated by studies in which the cognitive measures are taken with children of both sexes

3. *Clustering effects* A third aspect of the volume issue is posed by the question of whether clustering of children's commercials would benefit children—or perhaps penalize advertisers The evidence on both questions is inconclusive. The separation issue is unresolved because appropriate measures of children's discriminatory ability have not been employed in studies to date. The clutter issue is unresolved because experiments on clustering have used nonnovel commercials whose effects (e g , brand name recall, brand attitudes) could have been attained prior to the clustering manipulations in the studies. A further controversy arises over the possibility that commercials for competing brands within the same product category may suffer most from the greater likelihood of juxtaposition under a clustered format

The program-commercial discrimination issue received detailed attention in Chapter I of this report. Recommended improvements in methodology such as the use of signal-stopping techniques are equally applicable to research on clustering which seeks to test the hypothesis that this proposed format for children's commercials offers a policy-relevant benefit Regarding future studies on the advertisers' hypothesis that clustering is an unfair imposition on the right of individual advertisers to reach their potential audiences, we reemphasize the importance of employing commercials never seen before. Otherwise, cluster effects will be confused with previously established responses to the commercials. This research should be particularly careful to control for serial position or order effects since these are critical to the contention about clutter.

As yet untested is a corollary to the advertisers' hypothesis that commercials for competing brands are more detrimentally affected by the clustering format than commercials for noncompeting brands. This corollary introduces an area of research that goes beyond the clustering issue. Competitive brand choice has rarely been investigated with children, especially with the predominance of single-commercial samples in children's advertising research.

4 *Repetition effects* We can be more conclusive regarding the effects of repeated exposure to individual commercials There seems to be little basis for concern that repetition leads to greater persuasion—unless by persuasion we mean no more than the ability to remember the brand name mentioned in the commercial. A considerable amount of secondary research in learning theory and the available primary research indicates that neither the rate at which children encounter a commercial (i e , frequency per program or per week) nor the total number of times they encounter it, beyond the first one or two exposures, has any incremental effect on either their liking of the brand or their intention to request or buy it. The effect of repetition seems to be mainly to prevent children from forgetting their originally learned reactions to the product

However, these conclusions about the *rate* of repetition stem from secondary research. Although the theory and findings are substantial, a replication with children's commercials as the stimuli would establish whether or not the absence of a rate effect generalizes to our specific domain of interest. Conclusions about the *number* of repetitions derives from both primary and secondary research. Therefore, further research in this area is not a practical priority, although repetition poses a fascinating pursuit for the theoretician

Chapter 9

THE EFFECTS OF TELEVISION ADVERTISING ON CONSUMER SOCIALIZATION

The term "consumer socialization" refers to the continuous, on-going process by which children learn skills, knowledge, and attitudes relevant to their present and future behavior as consumers (Ward, 1974). Although there is little agreement about what skills, knowledge, and attitudes comprise "consumer socialization," it is understood various agents have a role in this process—parents, peers, schools, the community, as well as television advertising.

In some form, advertising surely affects children's learning about the marketplace. Parents report that children readily learn brand names and jingles from advertising. Research has investigated various aspects of children's learning from commercials—e.g., sources of product information (Caron and Ward, 1975), consumer processing skills (Ward et al., 1976), and learning about products and premiums (Rubin, 1972; Shimp et al., 1975).

But what is the nature of advertising's contribution to consumer socialization? Does advertising contribute to a broader understanding of the marketplace, and does it help to develop "good" or "effective" consumer skills during childhood and later years? Or, does advertising interfere with the development of such skills?

A prior question which must be answered is what particular skills, knowledge, and attitudes comprise "effective" or "good" consumer behavior? Also, do the long-term effects of consumer socialization supersede the short-term effects of specific advertising? In other words, if children are "misled" by individual commercials, or do not fully understand some of them, is there evidence of cumulative, long-term harm? How do we define harm? Finally, how do we compare consumer behavior for those exposed to television advertising and those not exposed, since virtually all children growing up in this country are exposed to television from an early age?

Some of these questions were addressed in the preceding chapter of this report, in terms of the effects of children's cumulative exposure to television advertising over time. Here, we will examine the issues in terms of television advertising as one of multiple factors that play a role in the process of a child's consumer socialization.

RESEARCH EVIDENCE

In this section, we will examine available evidence on three major policy questions relating to consumer socialization:

1. *The process*: How does consumer socialization occur?
2. *Influences on the process*: What is the role of advertising relative to other influences upon the child?
3. *The outcomes*: What is the impact on adult behavior of childhood consumer-related experiences?

Outcomes of consumer socialization. Three studies pertaining to the impact of early experience on later behavior are examined below. They illustrate the ways in which the outcomes of consumer socialization have been considered. Guest (1942, 1955) simply examined consistency in brand references between childhood and adult years. Arndt (1971) attempted to examine parental impact on older offspring, and Ward, Wackman, and Wartella (1976) defined consumer socialization outcomes in terms of the development of information-processing skills.

In one of the few longitudinal studies in consumer research, Guest interviewed subjects regarding brand loyalty and then reinterviewed them after a 12-year interval. At the time of the original interviews (1942), the subjects (3d to 12th grade children) reported their "favorite brands." The subsequent interviews in 1954 indicated a strong degree of "brand loyalty," since about one-third of the subjects maintained their preference for earlier-named brands, even when present use, age at original interview, IQ, and socioeconomic status were controlled. However, Guest's studies suffer from the common difficulties of longitudinal studies, in that only 20 percent of the original subjects could be located and/or returned the mail reinterview questionnaire, and brand availability could not be controlled. Therefore, his data cannot be considered conclusive.

Arndt examined parental influence on offspring's consumer behavior, finding significant agreement between college students and their parents regarding favorite stores, brand loyalty, and such social characteristics as opinion leadership and innovativeness. Arndt reported that college students and their parents differed concerning their perceptions of the importance of brand differences for various products, but it is not clear whether different kinds of items were purchased by college students and their parents or whether they purchased the same items but used them differently. Arndt also reported parent-offspring similarity in "behavioral variables" (favorite stores, opinion leadership, and willingness to try new products), but these findings may correlate with other variables, since the students lived at home. Moreover, the small sample (55 students and parents) does not permit generalizations to the large population of college-aged students who do not live with their parents.

Ward, Wackman, and Wartella sought to define consumer socialization in terms of the development of certain information-processing skills. They examined data from 615 mother-child pairs, including equal numbers of children in kindergarten, 3d, and 6th graders. "Higher" and "lower" levels of information-processing skills in the children were conceptualized by the authors according to the cognitive abilities required. For example, higher level skills included awareness of the purpose of advertising and use of multiple and abstract features of products in brand comparisons, while lower level skills included brand comparisons on the basis of perceptual attributes and awareness of a few sources of product information. The authors found that consumer information-processing skills were strongly related to the children's age and level of cognitive ability—an indication that such skills do indeed develop from early to later childhood. However, the relationship of television advertising to the acquisition of these skills was not at all clear or consistent (see chapter 8).

In summary, there are no firm data to demonstrate that childhood consumer experiences, including exposure to advertising, have a direct impact on later adult behavior. There have been no extensive longitudinal studies, and we do not know which early events have a lasting impact and which do not. Cross-sectional data do exist, however, to describe the average development of consumer skills during the age span of approximately 5 to 12 years.

How consumer socialization occurs. Data are scant and indirect with regard to consumer socialization. Bandura (1971) points to the importance of an imitation theory of learning for studies of consumer socialization, and some recent research provides evidence that parents expect their children to learn consumer skills through imitation rather than through directed training by parents or schools (Ward et al., 1976).

The dominant theory in studies of consumer socialization concentrates on cognitive development. A study by Ward, Wackman, and Wartella (1975) attempted to integrate ideas about cognitive development and family interaction. After reviewing research on parental influences on children, the authors identified four classes of family influences which were expected to affect consumer socialization at various stages of children's cognitive development:

1. *Goals* mothers have for their children's consumer learning,
2. Mothers' *behavior as consumers*, focusing on their use of information in consumer decisions,
3. *Mother-child interaction regarding consumer decisions* in both mother-initiated and child-initiated learning situations,
4. Children's *opportunities for independent consumer behavior*.

The specific variables included in each category are listed in table 9-1, along with the socioeconomic status of the subjects.

Different family influences affected higher and lower level information-processing skills, depending on the stage of cognitive development of the child. For younger children, mother-child interaction (variable 3 above) was most strongly related to consumer information-processing development, while for older children, the learning seemed to proceed more through observation and imitation of mothers' behavior as consumers (variable 2 above).

Table 9-1

Family Influences Affecting Consumer Socialization

Mother's Consumer Education Goals

1. Number of money goals
2. Number of quality shopping goals
3. Number of bargain goals
4. Degree of opposition to children's commercials

Mother's Own Consumer Behavior

1. Frequency of using contextual attributes in purchases
2. Frequency of using price/appearance attributes in purchases
3. Frequency of using advertising attributes in purchases
4. Relative efficiency of information use in purchases
5. Total information use in purchases
6. Number of sources consulted in major purchases
7. Budget planning
8. Budget accounting

Mother-Child Interaction About Consumption

1. Frequency of negotiating purchase requests
2. Frequency of refusal with explanation
3. Frequency of not yielding to purchase requests
4. Frequency of discussing consumption generally
5. Number of comments about commercials
6. Flexibility in responding to purchase requests

Children's Opportunities Variables

1. Number of different sources for money
2. Total child income
3. Frequency of taking child shopping
4. Child power in making purchases
5. Frequency of exposure to television commercials

Other

1. Family socioeconomic status

Source: Ward, Wackman, and Wartella, 1976

The authors also found evidence of three ways in which parents influence consumer socialization:

1. By directly influencing the rate of cognitive development of the child, which in turn affects consumer information-processing skills.
2. By influencing the child's use of existing cognitive skills in consumer situations.
3. By directly influencing the child's performance as a consumer, regardless of cognitive abilities.

A somewhat surprising, but tentative finding is that some kindergarten children can identify the selling purposes of advertising and display other consumer-related skills beyond what would be expected from theoretical descriptions of their cognitive-stage abilities. The most important variable predicting

this higher level skill was the frequency of consumer-related parent-child interaction (variable 3 above). If this finding is replicated, it would suggest that parents of even very young children may have a major impact on relatively advanced consumer-information processing skills

Theories of learning, cognitive development, and family interaction all may help to increase our understanding of how consumer socialization proceeds. But actual data do not yet exist The limited research to date suggests that the family plays a crucial role and that the process appears to change over the course of childhood, since parents treat different-aged children differently and children's cognitive abilities change It also appears that early parent-child interaction is a key element, followed by the increasing importance of observation and imitation in later childhood

Influences on consumer socialization. Several studies have attempted to assess the relative influences of family, peers, and mass media on consumer socialization. A few have used self-reports to provide estimates of family, peer, and media influences on responses to advertising (James, 1971), on purchase acts (Teter, 1966), and on drug attitudes and use (Kanter, 1970) The general finding is that parental influence decreases, and peer influences increases, with age. Mass media influences are reported to be low and constant over later childhood and early adolescent years However, these self-reporting measures of influences are of suspect validity

Ward and Wackman (1971) examined the relative influence of parents and media on four aspects of "consumer learning" among junior and senior high school students (1) recall of TV commercial slogans, (2) attitudes toward commercials, (3) materialistic attitudes, and (4) self-reported effects of advertising on specific purchases They reported that learning of slogans is more a function of intelligence than of TV exposure time However, attitudes toward advertising and materialistic attitudes were both found to be related to the reasons given by the subjects for watching commercials Particularly important were "social utility" reasons—i.e., the motivation to watch commercials as a means of gathering information about life styles and behaviors associated with uses of specific consumer products

Younger adolescents talked more with parents about specific consumption practices and acts, but such intrafamily communication was operative for *all* adolescents in mediating between exposure to advertising and purchases In a partial replication of this study, Stephens and Moore (1974) and Moore and Stephens (1974) reported findings similar to Ward and Wackman However, in contrast to the earlier study, the researchers found only marginal differences between younger and older adolescents in parent-child communication about consumption, and also found this communication to be infrequent. This may be due to different family characteristics in their semirural sample (Ward and Wackman's sample was suburban)

Using self-reports, Fauman (1966) studied the relative influence of parents and peers on brand preferences and brand loyalty among 250 boys (grades 10, 11, and 12) from predominantly working-class families. Both peer and parental influence on brand preferences were found to decrease with children's intelligence, but were not related to media exposure time While parental influence decreased with age, peer influence remained constant with age, suggesting that this source of influence is established by early adolescence, or about 10th grade. However, the direction of influence is not clear. If a son is correct in reporting that he and his father use the same brand, it may be that the son has influenced the father's brand preferences, rather than vice versa. Brand loyalty was found to increase with age but decrease with intelligence and with increasing media exposure

The results with respect to intelligence are not immediately clear Perhaps higher intelligence is related to lower respect for peers' opinions, or with increased knowledge of consumption alternatives, or perhaps given the concurrent effects of lower intelligen and higher media exposure, certain adolescents are more easily persuaded by different brand appeals Fauman did not explore these interesting possibilities

Cateora (1963) analyzed teenage consumption patterns and relative influences of peers and parents on some of these patterns Self-administered questionnaires were completed by 189 juniors and seniors in one high school in a "small" city. Cateora found considerable homogeneity among adolescents concerning various "consumer values and goals," including attitudes toward credit and saving, attitudes

toward comparison shopping, relationships among quality, quantity, and price, and attitudes toward merchants and advertising. These values were relatively independent of social class.

However, inspection of the data revealed several curvilinear relationships between social class and consumer attitudes and practices. Lower class and upper class students often expressed similar attitudes, but these differed from those of middle-class adolescents. Such results may indicate that different experiences may lead to expression of the same attitude. For example, regarding attitudes toward quality vs quantity in buying apparel, the responses of middle-class adolescents who said they preferred to buy one pair of good-quality shoes rather than several pairs of lower quality shoes may reflect their having experienced this choice, whereas the same attitudes expressed by lower class adolescents may reflect their desire to be able to make this kind of purchase selection.

It appears that the studies of consumer socialization examined here reflect the conventional wisdom that parents become less important and peers more important as children enter adolescence. However, studies have examined only a few aspects of consumer socialization, and advertising is often not even considered. More data are needed before definitive statements can be made about the relative influence of different socializing agents. In these future studies, a major problem will be to identify, measure, and compare the degrees of influence of different socialization agents. It may be less important to try to specify how much various influences affect behavior than to understand how socializing agents *combine* to affect children. We might find, for example, that television advertising provides information and a short-term stimulus for product desires, but parents mediate these outputs in their offspring over much longer periods of time. Such a possibility is considered in our next chapter, on parent-child interaction.

SUMMARY

If consumer socialization is defined in terms of development of skills, attitudes, and knowledge relevant to consumer behavior, then it is probably safe to conclude that television advertising is one of many influences on the process. What is not clear from existing research is whether television advertising contributes to "effective" or "good" consumer behavior patterns, whether advertising merely provides consumer-related stimuli which provides a catalyst in the process; or whether television advertising's influences contribute to any long-range socialization effects.

Data do not exist to support the contention that long-term consumer socialization obviates short-term issues pertaining to children's comprehension of individual advertisements. In any case, if one believes that children have a right to be able to fairly evaluate advertising messages, it seems advisable to separate short-term and long-term effects, regardless of how long the effects of commercials may last. There are also no longitudinal data to assess the long-range impact of exposure to advertising during childhood. Data do support the contention that advertising contributes to some elements of "consumer learning." However, the research emphasizes the primary role of the family in mediating advertising's effects and in contributing directly to consumer socialization.

NEEDED RESEARCH

The most compelling research need is indicated by the long-term nature of consumer socialization effects. It is clear that further research is needed on the extent to which early learning affects later consumer behavior. One view is that as people get older, role changes make early learning unimportant. The other view holds that early learning remains a primary determinant of later patterns of cognition and behavior. Both of these simple views may be misleading. It may be that the question is not how much early learning experiences influence later consumer patterns, but which aspects of early learning are important and which are not.

Perhaps the most vexing problem is specifying the outcomes--just what skills, attitudes, and behaviors comprise consumer socialization, and how can these reflect something of the "quality" of consumer behavior? A promising approach may be an information-processing framework, since it focuses on such complex cognitive skills as selection and use of information relevant to purchase decisions. Such cognitive operations are fundamental to purchasing behavior and are more important and explanatory than the simple cataloging of purchases over time or the measurement of changes in consumer attitudes.

Extremely long-term longitudinal research does not seem necessary or desirable. Rather, research could combine longitudinal and cross-sectional design features (see chapter 12) Finally, research on consumer socialization would seem to require "naturalistic" kinds of data-gathering procedures; e.g., using purchase diaries followed by retrospective interviews, rather than simple surveys which rely only on verbal-report data.

Chapter 10

TELEVISION ADVERTISING AND PARENT-CHILD RELATIONS

There has been great concern about the effects of advertising on family relations. This concern takes several forms.

- Consumption requests by children, particularly those attributed to advertising, may strain parent-child relations.
- This strain may be greatest among economically disadvantaged families, who presumably must deny most requests.
- Denial may be frustrating to both parent and child, leading to guilt and resentment.
- Children's requests may complicate family-consumption priorities, leading to maladaptive practices, especially among the poor.

Action for Children's Television (1971) summarizes these concerns as follows.

> In the case of children's advertising, the purpose is to use the child as a surrogate salesman to pressure the parent into buying the product. This is unfair to the child . . . to the parent and can be damaging to the parent-child relationship.

Green (1971) of HEW's Office of Child Development offers a similar view

> The child . . . is put in the position of an inexperienced solicitor; and the parent, an experienced though unsolicited buyer. When the parent denies the child's request for an advertising product he may feel guilty or resentful at being repeatedly placed in the position of having to say 'no.' "

Some members of the marketing community hold a contrary view, claiming that advertising can result in positive interaction between parents and child, teaching the child intelligent habits of purchase and consumption. For example, Banks (1971) suggests that the exchange between parents and child "may actually facilitate the child's ability to cope with the realities of independent living."

These concerns are addressed by the following research questions:

- What *attitudes* do parents hold toward children's advertising? How much do they resent its intrusion on family interaction processes?
- What mediation do parents exercise regarding children's *viewing behavior*? How much parent-child co-viewing occurs and how much do parents control the amount of television viewing by their children and the types of programs watched?
- How much parental mediation of *children's product requests* occurs? What level of requests do children initiate?
- How do parents handle children's requests? What is the incidence of *parental yielding* vs. *denial*?
- What are the *outcomes* of parental mediation? How much conflict or disappointment results? What learning occurs from these interactions?

CURRENT REGULATION

The purpose of advertising to children is, of course, to encourage sale of the product or, as stated by NAD (1975), " . . to encourage trial and repeat purchase." This inevitably involved parent-child interaction of some sort, since parents are in the pivotal role of mediators between advertising influences and trial or repeat purchases.

Nevertheless, advertising on children's programs must not exhort children to pressure their parents to buy. The NAB code specifically prohibits advertising-induced pressure:

> Children shall not be directed to purchase or to ask a parent or other adult to buy a product or service for them.

The NAD policy is essentially the same.

> Children should not be urged to ask parents or others to buy any product

INCIDENCE

Consistent with the NAB code, national advertisers may no longer explicitly encourage children to ask their parents to buy a product However, even before enforcement of this code, the incidence of such direct urging was very low. Winick et al. (1973), in a 1971 content analysis of children's commercials, found that only 1.3 percent of commercials encouraged children to ask their parents to buy. However, advertisers are free to encourage children to request products from parents by means other than direct exhortation

RESEARCH EVIDENCE

Parental Attitudes Toward Children's Commercials

There are two sources of data regarding parental attitudes towards children's commercials: (1) parents' complaints about children's commercials; and (2) survey research evidence on parental attitudes toward children's commercials.

Statistics on adult complaints about advertising come from the FCC and the NAD. In 1973, the FCC received some 55,000 letters commenting on or complaining about television. Of these letters, only 34 specifically complained about children's commercials. However, in 1974 the Commission received over 100,000 letters commenting on advertising practices in children's television, of which 90 percent were negative. The impetus for this outpouring of letters was the efforts of Action for Children's Television

The second source of data on parental complaints in the NAD, which in the first year of operation, 1974, logged about 125 letters from the public concerning children and advertising. On the basis of these complaints, the NAD opened six formal inquiries. The unit also opened 20 inquiries based on its own monitoring of children's commercials (Campbell, 1975).

For parents to complain about advertising to children requires considerable initiative on their part, since the means of registering complaints are not widely publicized. Thus, we must assume that the frequency of registered complaints may considerably understate the actual level of concern. In contrast, it may well be that surveys of parental attitudes regarding advertising and children may considerably overstate the amount and strength of negative sentiment. When asked, parents may feel obliged to comment negatively on advertising—especially advertising to children, although such attitudes may be relatively unimportant to them.

This issue is addressed in research by Bauer and Greyser (1968). In general, they find that adults do not regard advertising as particularly salient to them. Although adults express definite opinions when asked about advertising, it is not a topic which they spontaneously discuss or feel strongly about. In terms of overall attitudes, Bauer and Greyser report that 41 percent of the public is basically favorable toward advertising, 14 percent unfavorable, 34 percent mixed, and 8 percent indifferent. About 15 percent of the sample cites advertising as needing immediate attention and change.

When parents are asked to express their opinions about advertising to children, their reported attitudes are often considerably more negative. In a study conducted on behalf of Action for Children's Television, Yankelovich (1970) found that many mothers complained about commercials, especially misrepresentation of the product, manipulation of the child, and strains on low-income families. Another survey, by Ward, Wackman, and Wartella (1975) find the following profile of responses to children's commercials among 615 parents:

• Strongly negative	23%
• Negative	50%
• Neutral	23%
• Positive	4%
	100%

These negative attitudes are most pronounced among parents of younger, kindergarten-age children, but do not seem to be associated with social class.

Adult attitudes toward children's commercials are negative, but how strongly held are they? A survey by Atkin (1975g) suggests that a majority of parents are willing to pay the price of commercial interruptions on children's programs in order to have these programs continue. With a sample of 301

mothers of school-age children. Atkin finds the following

- Most mothers are opposed to banning of commercials on Saturday morning television (53 percent opposed, 28 percent in favor, 19 percent maybe or don't know).
- TV-advertised children's products are judged to be neither a better nor a worse value than unadvertised products.
- Only 49 percent of mothers report having seen any Saturday morning commercials
- Only 22 percent of mothers can cite a particular commercial which they feel is especially bad for their children.

The mothers' opinions would not seem to be based upon much direct observations, since one-half of the mothers have not seen any Saturday morning commercials This raises the issue of salience of parental attitudes toward children's commercials.

Research by Feldman, Wolf, and Warmouth (1976) also probes attitudes of a randomly selected sample of 150 parents of children between 2 and 12 years old These conclusions can be drawn

- The average level of concern about children's commercials is not high
- Nevertheless, 65 percent of the sample felt some sort of regulation is needed
- There is no apparent relationship between parents' expressed dissatisfaction with commercials and their monitoring of children's television viewing
- Level of concern about child-directed commercials is not predictable from demographic characteristics or from family characteristics—such as family size or age of children.
- Among the two-thirds of the sample preferring regulation, 65 percent would prefer regulation by an independent children's group, such as ACT: 20 percent would prefer industry self-regulation, 10 percent would prefer government regulation; and 5 percent would prefer an electronic device that could be attached to the television set.

Thus, parents seem to wish to abdicate the responsibility for regulation of censorship to other sources However, as the authors note, the phenomenon is more complex since parents have multiple goals for their children, including fostering responsibility, education, and exposure to different value systems. Parents may feel that the regulation of television viewing is in conflict with other socialization objectives. As Feldman, Wolf, and Warmouth conclude: "Only with an appreciation of the conflicts facing parents and an appreciation of the choices available to them can we assess what should be asked of them and what must be asked of the larger society."

Roper (1975) conducted a study of parental attitudes for the Television Information Office of the NAB. The data shown in table 10-1 indicate, in general, that resistance to commercials on children's programs is much less than acceptance; that resistance declined somewhat between 1972 and 1974; and that resistance was somewhat greater among parents of the youngest children. We could dispute the wording of the questions asked as being perhaps less than neutral, as well as the validity of single question attitude scales. These results are, however, consistent with the Atkin (1975g) survey cited earlier

Finally, Culley, Lazer, and Atkin (1976) examined attitudes toward children's commercials across a range of publics, including "townspeople," "advertising agency executives," "Action for Children's Television spokesperson," and "government" (regulatory agency) personnel. The sampling in this research is far from ideal, except for the "townspeople" respondents who were randomly selected. The methodology also varies in that the "townspeople" interviews were conducted in-person, whereas the other interviews were secured by mail. We should also be aware that the "townspeople" are not necessarily parents of children. Nevertheless, the comparison of attitudes among these groups is interesting, as shown in table 10-2.

In regard to the perceived effects of televised advertising on children, the "townspeople" and "government" samples express surprisingly similar opinions, while the "advertising agency" sample is considerably more positive and the "ACT" sample considerably more negative. In general, about one-quarter of the townspeople feel that advertising helps develop good consumer skills (item 1 in the table); about one-half feel that commercials may arouse anxieties in children (item 4), two-thirds feel that commercials increase parent-child conflict

Table 10-1

Parental Attitudes Toward Children's Television Advertising:

"Now I'd like to ask you about commercials on children's television programs—and I mean all kinds of children's programs. Some people think there should be *no* commercials in any kind of children's programs because they feel children can be too easily influenced. Other people, while perhaps objecting to certain commercials, by and large see no harm in them and think children learn from some of them. How do you feel—that there should be *no* commercials on any children's programs, or that it is all right to have them?"

			People who have children:					
	Total Sample		Under 6 years old only		Both under and over 6 years old		6-16 years old only	
On Children's programs	11/72 %	11/74 %	11/72 %	11/74 %	11/72 %	11/74 %	11/72 %	11/74 %
Should be no commercials	32	27	39	34	37	31	31	27
All right to have them	60	63	58	65	62	66	64	67
Don't know/No answer	8	10	3	1	1	3	5	6

"If eliminating commercials on children's TV programs meant considerably reducing the number of children's programs, which would you favor . . ."

	11/71	11/72	11/74
Eliminating the commercials and considerably reducing the number of children's programs, or	43 %	38 %	35 %
Keeping the commercials to keep the children's programs	47	53	54
Don't know/No answer	10	9	11

Source Roper Organization (1975)

(item 3), and almost all the townspeople feel that commercials often persuade children to want things they don't need (item 2).

As to level of regulation, the townspeople favor an increase (item 5) but, as reported in other research, do not favor an outright ban on children's commercials (item 7). The ACT sample was the most regulation-oriented of all, by a substantial margin over the government sample (items 5, 6, 7). Given the regulatory alternatives, the townspeople are more inclined toward industry self-regulation than toward government regulation (items 8, 9), whereas the ACT sample placed little confidence in self-regulation (item 8)

In summary, parents do appear to be concerned and to have some complaints about children's television advertising, but, for the most part, this concern is not so intense as to favor banning commercials altogether. Parents do favor increased regulation, with a preference for industry self-regulation and some sentiment for more government regulation. Parental opinions about children's commercials may not be strongly held or highly salient. Attitudes toward children's commercials obviously vary across publics, from advertising agency executives on the positive side of the spectrum to Action for Children's Television representatives on the negative side

Parental Mediation of Television Viewing Behavior

Here we are concerned with two main issues: the extent of parent-child co-viewing, and the level of

Table 10-2

Attitudes of Consumer, Advertising, ACT, and Government Regulatory Agency Group Samples Towards Children's TV Advertising

Item	Townspeople Sample (N = 455)	Agency Sample (N = 71)	ACT Sample (N = 51)	Government Sample (N = 21)
A. TV Advertising Effects on Children		*(Percent Agreement)*		
1 Advertising helps develop a child's ability to make good consumer decisions	27	65	2	23
2. Commercials often persuade children to want things they do not really need	95	66	200	95
3. Television commercials lead to an increase in parent-child conflict	67	7	93	64
4. Television commercials often arouse anxieties and feelings of insecurity in children	51	3	76	41
B. Level of Regulation				
5. Television advertising to children should be more regulated than it already is	77	23	100	91
6. Children's television advertising requires special regulation because of the nature of the viewing audience	89	61	98	86
7. Advertising on children's television programs should be banned completely	32	3	89	36
C Mode of Regulation				
8. Commercials to children should be regulated by advertisers themselves	54	63	14	23
9. Commercials to children should be regulated by the government	30	11	70	50
10. It is up to the parents to regulate children's television viewing behavior	93	97	81	67

Source Culley, Lazer, and Atkin (1976)

parental control over the amount and type of programs viewed by their children A related factor is the presence of multiple-television sets within a household and the resulting effects on family viewing patterns.

Parental control over the amount and type of programs viewed is a direct form of mediation The presence of a parent as a viewing partner provides a further opportunity for mediation of program and advertising content Parents and children may exchange comments, and instruction may take place, even if it is not deliberately studied

Co-viewing levels Levels of co-viewing vary by time of day, number of sets in a household, and age of the child Nielsen data are useful in examining such co-viewing levels, since the distortions of self-reporting are avoided and the Nielsen sampling plan is well developed

Nielsen data (1975) reveal considerable differences in adult-child co-viewing levels by time of day, reaching a high of 70 percent for prime time programing (7 30 - 11 00 p m), falling to 57 percent weekdays (10 00 a m - 4 30 p m Monday to Friday), and showing a low of 20 percent for Saturday mornings Unfortunately, the level of co-viewing during the late afternoon (4 30 - 7 30 p m) on weekdays, a time when children view heavily, is not reported Nielsen data also reveal that co-viewing

varies by specific program, but does not seem to have been affected by the rise in multiple set ownership from 1971 to 1975. Co-viewing is also found to be most pronounced for younger children.

Lyle and Hoffman (1972) examined co-viewing patterns within a working-class community in a small town outside Los Angeles. There are obvious limitations to these data, including the nonrepresentativeness of the sample, reliance on child reports, and failure to examine patterns by time of day. Nevertheless, the data do reveal a broader range of co-viewing patterns, since they include siblings. The most complete data, for 1st graders, are as follows:

Watch with siblings	37%
Watch with parents	8%
Watch with siblings and parents	27%
Watch with friends	8%
Half alone, half with someone	14%
Mostly alone	11%
Total	100%

These data indicate that sibling co-viewing is the dominant pattern (37 percent) and that parent children co-viewing is next most frequent (35 percent). The study also examined parental co-viewing by age and found a declining pattern as the child grows older.

Co-viewing was also studied by Bower (1973) with a national probability sample of about 1,900 households. It is subject to the same limitations of self-reporting and lack of time-segment breakdowns, and the data do not isolate the incident of child-only viewing, since the questions all refer to joint-viewing patterns. However, Bower found that in multiset households, sibling co-viewing is the predominant pattern (in 43 percent of cases), followed by husband-wife viewing (33 percent), entire family viewing (12 percent), and parent-child viewing (7 percent). For single-set households, the most common joint viewing pattern is the entire family (55 percent) followed by husband-wife (17 percent), sibling (13 percent), and parent-child (13 percent). Mother-child co-viewing is more common among blacks (20 percent of co-viewing) than whites (8 percent) and is slightly more common among white collar families (10 percent of co-viewing) than among blue collar families (7 percent). Bower also found that when mothers and children view together, the mother determines the program in 37 percent of the cases, the child in 33 percent of the cases. In 27 percent of the cases a joint decision is made.

Parental control. Regarding parental restrictions of television viewing, Bower reports definite rules about children's viewing among 46 percent of college-educated parents and 25 percent of parents with a grade school education. Surprisingly, the amount of viewing control is not related to children's age (see table 10-3). However, the *type* of viewing control does differ according to age. For example, parents of older children are more likely to forbid watching certain programs whereas parents of younger children are more likely to change the channel when they considered a program to be objectionable. Children from higher-education households have some influence upon which program the family is to watch but children in households with less education more often decide program selection. In these latter households watching television is more likely to be encouraged to occupy the child's time—the "pacifier" role.

Consensus of parent-child reports. There are two problems in evaluating research on television viewing patterns. The first is that television use is often accompanied by a variety of other activities, such as eating, reading, and studying (see Bechtel et al., 1971, Lyle and Hoffman, 1971). Thus, the term "viewing" can take on a variety of different interpretations, and consensus as to what constitutes parent-child co-viewing becomes problematic. For example, does joint viewing occur if a parent is in the same room but engaged in another activity? The second problem is discrepancies between parents and children in their descriptions of viewing patterns. Greenberg et al. (1971) found a significant lack of agreement between reporting by mothers and children on rules regarding television viewing. There was best agreement on the frequency of parents being present, good consensus on the amount of viewing with friends, but a relative lack of consensus as to the level of viewing by children alone.

Research by Rossiter and Robertson (1975) examined 253 mother-child dyads regarding television control and found that parents claimed less total viewing, more co-viewing, stricter control, and greater parent-child interaction than their children reported. Examining social class, the study found that upper class parents consistently seem to give the more socially desirable response. Therefore, actual parental control by better educated parents may be

Table 10-3

Parental Control of Viewing

	Age of child:		
	4-6 yrs. (N = 197)	7-9 yrs. (N = 217)	10-12 yrs. (N = 189)
Rules about viewing time			
Restrict amount of viewing			
Often	30%	39%	34%
Occasionally	27%	25%	27%
Never	43%	36%	39%
Set special hours			
Often	41%	48%	46%
Occasionally	26%	18%	22%
Never	32%	34%	32%
Rules about program content			
Decide on programs			
Often	45%	37%	46%
Occasionally	28%	35%	38%
Never	27%	27%	11%
Change channel when program is objectionable			
Often	40%	27%	30%
Occasionally	30%	36%	40%
Never	31%	29%	31%
Forbid watching certain programs			
Often	39%	39%	52%
Occasionally	27%	29%	22%
Never	35%	32%	25%

Source Bower (1973)

as low as that among the poorly educated, and we cannot necessarily accept the Bower data, since his figures are based only on parental reporting.

Mediation of Buying Behavior: Request Levels

Children act as consumers in several ways. Wells (1965) posits the following

- by making personal purchases—spending small amounts of money on their own,
- by making direct requests at home;
- by making direct requests in the store;
- by "passive dictation"—i.e., parents buying what they know their children willingly consume and avoiding what they resist consuming

Our concern here is primarily with request rather than independent purchases by children, since our focus is on direct parent-child interaction regarding consumption. This section examines the *incidence* of request, to parents, the next section focuses on the *process* of parental mediation.

In general, the research evidence indicates that the incidence of children's in-family purchase requests varies with the age of the child and the product category There is also some tendency for social classes to relate to the incidence of purchase requests

- *Age of child.* Requests generally decrease somewhat among older children (Wells, 1965, Atkin, 1975a; Ward and Wackman, 1972; Caron and Ward, 1975; Robertson and

Rossiter, 1976, Clancy-Hepburn, 1974) This may be due to a number of factors, including the child's increasing sophistication in dealing with his parents in less direct ways than explicitly asking

- *Product category.* Children are more likely to make requests for products which are frequently consumed by them, such as breakfast cereals, or of particular interest to them, such as toys. This is intuitively obvious but has been substantiated in a number of studies, including Wells (1965), Ward, and Wackman (1972), and Ward, Wackman, and Wartella (1975)
- *Social class.* There is some tentative indication of increasing request levels the higher the social class (Atkin, 1975a; Caron and Ward, 1975, Wells and Losciuto, 1966)

It is, of course, difficult to demonstrate a cause-and-effect relationship in regard to the role of television advertising in encouraging purchase requests to parents. Nevertheless, there is evidence suggesting that television advertising's impact, relative to other information sources, can be fairly great under certain conditions.

Caron and Ward (1975), in a study of 84 third and fifth grade child-mother pairs, report that children cite television as the source of Christmas-gift requests in 27 percent of the cases, followed closely by friends in 26 percent of the cases. Television advertising as an information source was also found to increase in importance with the age of the child. In another assessment of television advertising's impact on Christmas-present requests, Robertson and Rossiter (1976a) found it to be the dominant information source among a sample of 289 1st, 3d, and 5th graders. This study also examined the "magnitude" of advertising effects by assessing the proportion of toy and game requests *versus* requests for other generally nonadvertised presents during the period of concentrated toy and game advertising preceding Christmas. During this pre-Christmas period, there was an approximate 5 percent increase in the proportion of toy and game requests across all grade levels. Furthermore, heavy viewers were significantly more likely to request advertised toys and games than light viewers.

Two exploratory studies by Clancy-Hepburn (1974), of 50 and 55 children in grades 3 through 6, indicate a significant correlation between the number of requests made for food products and the amount of Saturday morning television viewing However, the author cautions that "this could be a function of age." A positive correlation was also found between the child's attitudes toward advertising and the number of requests made.

Atkin (1975g) assessed children's self reports of request preferences among 738 children, from preschoolers to 5th graders. Parallel data were also derived from 301 mothers of these children. Consistent with our earlier discussion, Atkin finds that the younger children are considerably more likely than the older children to report requesting cereals and toys after seeing commercials. Requests for cereals and toys appear to be roughly equal. In general, there is a reasonably strong consensus between mothers and children about the level of requests.

As reported in table 10-4, requests are significantly greater among heavy viewers of Saturday morning television than among light viewers. The correlation between viewing and requests is +.41, and drops to + 29 when age, sex, race, and scholastic performance are controlled. Atkin also correlates the amount of children's viewing, based on a combined mother/child measure, with requests for specific products, reporting a + 28 correlation between viewing and advertising-simulated cereal request, and a +.17 correlation for toy requests. Again, when age, sex, race, and school performance are controlled, the correlations fall somewhat, to + 22 for cereals and + 10 for toys

In summary, Atkin concludes "There is a clear pattern of evidence showing that Saturday morning television advertising has an important influence on children's asking for cereal and toy products." We share Atkin's conclusion. Television advertising is an important information source for child-oriented products, primarily foods and toys. Such advertising encourages requests to parents, especially among younger children.

Process of Parental Mediation Yielding Denial

What are the levels of yielding or denial when children initiate purchase requests? In general, yielding varies by product category and seems to increase with the age of the child. The relationship between social class and yielding is inconsistent across studies. There is some preliminary evidence that parental attitudes toward television and advertising may be related to yielding levels.

Table 10-4

Advertising-initiated Requests

	Light viewers (N = 444)	Heavy viewers (N = 294)
Many of the TV commercials are for toys—things like dolls and racing cars. After you see these toys on TV, how much do you ask your mother to buy them for you?		
A Lot	16%	40%
Sometimes	64%	46%
Never	20%	14%
After you see commercials for breakfast cereals on TV, how much do you ask your mother to buy the cereal for you?		
A Lot	24%	41%
Sometimes	50%	39%
Never	26%	20%

Source Atkin (1975g)

Product category. Yielding seems to depend on the product and whether it is primarily for the child's consumption. For example, Ward and Wackman (1972) report yielding levels of 87 percent for cereals, 63 percent for snack foods, 54 percent for games and toys, 42 percent for candy, 39 percent for toothpaste, 16 percent for shampoo and 7 percent for pet food—all based on the report of mothers from middle-class families

In an observational study of 516 families, Atkin (1975f) found that 62 percent of parents yield to the child's cereal "request" or "demand." In another observational study, Wells and Loscuito (1966) reported that parents acquiesce to 69 percent of the children's requests for cereal and 57 percent of requests for candy

Berey and Pollay (1968) also examined the relations between mothers and children in the purchase of ready-to-eat cereals. They found that the mother is a strong "gatekeeper" in children's selections, a finding that seems contrary to the Ward and Wackman and Atkin reports that parents acquiesce to most purchase requests by children for breakfast cereals. However, the Berey and Pollay data must be regarded as highly preliminary due to the limited sample size and measurement procedures.

Examining yielding patterns for toys, Caron and Ward (1975) found that parents yield to 31 percent of children's requests. Robertson and Rossiter (1976b) found that parents yield to 43 percent of children's Christmas-gift requests

Thus, yielding levels seem substantial for child-relevant products. For cereals, the available research indicates parental yielding to roughly two-thirds of requests. Further research, however, should document yielding levels according to price and other relevant variables

Age of child. Positive associations between the child's age and parental yielding levels have been found in research by Ward and Wackman (1972), Atkin (1975a), Wells (1965), and Ward, Wackman, and Wartella (1975). Other research, however, failed to find this relationship, including that of Caron and Ward (1975), and Berey and Pollay (1968). The latter conclude that the mother's purchases of cereals are independent of the child's age, as well as the number of siblings, the mother's outside employment, and the number of trips to the store by the child

The strength of the relationship between age of child and parental yielding may logically vary as a function of yet unspecified variables, such as social

class and family structure Berey and Pollay, for example, found that highly child-centered mothers yield less often to cereal requests, prompting these authors to speculate that " . given her overriding concern for the child's well-being, she tends to ignore the child and to purchase what she thinks will do the child the most good." (Berey and Pollay do not, however, examine the amount of conflict created by such overruling of child preferences.) According the presence of an age/yielding relationship, Wells (1965) offers an interesting hypothesis, "Older children are more selective and more circumspect . . . especially when the product is one they are going to consume themselves "

Social class Mixed results are obtained across studies when social class is related to yielding (Atkin, 1975a, Caron and Wa[illegible], 1975; Lyle and Hoffman, 1971; Ward and Wackman, 1972; Ward, Wackman, and Wartella, 1975; Wells and Losciuto, 1966). On balance, however, the weight of the evidence favors the hypothesis of a positive relationship between the two. However, it may well be that social class is not a particularly meaningful or robust variable in this context.

Parental knowledge and attitudes. Research on adolescents by Ward and Robertson (1970), suggests that television advertising may complement intrafamily communication about consumption Commercials sometimes do provoke family communications. Ward and Robertson found that adolescents in families with high levels of communication about consumption are more favorable toward advertising, and are more materialistic in orientation. Preliminary research by Clancy-Hepburn (1974) further supports the interaction between parental attitudes and children's attitudes—in this case, toward food advertising. Children whose mothers have a good understanding of the validity of nutritional claims express significantly lower preferences and fewer requests for advertised foods and report lower consumption of these products. Furthermore, mothers with a good understanding of advertising claims tend to yield less to children's requests for snack foods.

Thus, parental yielding may be a function of product, age of the child, social class level, and parental knowledge and attitudes. These few relationships certainly do not fully explain yielding or denial Other variables, especially family interaction style, are undoubtedly involved, and multivariate analysis is badly needed to understand their relative impact.

Outcomes of Parental Mediation Learning/Conflict

Parental mediation of children's purchase requests is both an opportunity for parental instruction regarding consumption and a source of possible conflict. Most existing research on children and advertising has focused on intrafamily conflict and disappointment. Almost no studies focus on possible positive learning outcomes.

Conflict. In research cited previously, Robertson and Rossiter (1976b) probed children's disappointment upon not receiving Christmas-present requests. Disappointment, measured 2 weeks after Christmas, is not as high as might be anticipated. Parents "refused" 57 percent of children's requests, and only 35 percent of the children indicated disappointment after denial. Of course, higher levels of disappointment might have been observed if measures were taken immediately after denial. Disappointment was most pronounced among younger children, children with high television exposure and, contrary to expectation, among children from homes with a high level of parent-child interaction. Regarding this last finding, the authors suggest that children from these homes may feel more "let down" if they have discussed presents but did not receive them

Atkin (1975g) focuses more on parent-child arguments and anger than on disappointment One-sixth of the children report arguing with their mothers "a lot" and another one-third arguing "sometimes" after denial of toy requests One-fifth of the children become angry "a lot" about toy denials, and two-fifths become angry "sometimes." For denials of cereal requests, the degree of argument and anger is basically similar but somewhat lower

Atkin reports a tendency for arguments and anger to increase as children grow older, and a slight correlation between Saturday morning television exposure and a combined conflict/anger index However, based on path analysis, Atkin concludes that television exposure has no *direct* link on conflict/anger, but works indirectly through increasing the frequency of children's product requests In parallel interviews with mothers of these children. Atkin finds that mothers detect disappointment in 21 percent of cereal denials and 29 percent of toy denials. Overt anger is reported in 5 percent of

cereal denials and 10 percent of toy denials The correlation between television exposure and anger is .11 for cereals and 18 for toys

In another study based on unobtrusive in-store observations, Atkin (1975f) recorded conflict and disappointment over parental denials of cereal requests. In the instances of denial, conflict occurred in 65 percent of the cases and unhappiness resulted 48 percent of the time There is some tendency for conflict and unhappiness to be highest among 6-8 year olds. Atkin notes that "conflict is seldom intense or persistent Displays of child anger or sadness are also short-lived in most cases." This research does not attempt to relate levels of conflict and disappointment to television advertising exposure.

However, an experimental study by Goldberg and Gorn (1976) assessed the extent to which exposure to a TV commercial for a toy affects a child's feelings toward a parent who denies a request for the advertised toy as well as the level of disappointment on nonreceipt of the toy. One hundred and sixty-six 4-5 year old children were randomly allocated to control and experimental groups Children in the experimental groups (n=112) viewed commercials for a toy (labeled "Ruckus Raisers Barn") in the context of a 10-minute neutral program A control group (n=54) viewed the program without any commercials.

Following exposure to the commercials and or program material, children were shown pictures of the same boy either happily embracing his father or walking glumly away from him. The experimenter then asked:

> I know a boy whose daddy didn't get him the Ruckus Raisers Barn, when his daddy didn't give him the Ruckus Raisers Barn do you think he wanted to play with his daddy like this . or do you think he wanted to go away from his daddy like this ."

While about three-fifths of the control group thought the boy would "still want to play with his Daddy," only about two-fifths of those in the experimental groups thought so. The responses remained consistent 24 hours later. While some of the comparisons with the control group were not quite significant, the evidence appears to suggest that, at least in this experimental setting, exposure to TV commercials for toys can contribute directly to negative feelings on the part of the child toward his parent.

In order to examine the relationship between the child's level of disappointment upon nonreceipt of a toy and exposure to the commercial, each child was shown a picture of a boy watching television, with only the back of his head visible in the picture. The experimenter then asked

> You see this boy; he didn't get the Ruckus Raisers Barn, so he went to watch television instead. Do you think he was sad that he didn't get the Ruckus Raisers Barn, or do you think he was still happy because he could watch television?"

Close to two-thirds of the control group thought the boy was "still happy" compared to about one-third of those in the experimental groups who gave the same response, (24 hours later the responses were slightly but not significantly close to those of the control group). It thus appears that direct exposure to a TV commercial for a toy increased the likelihood that children would consider failure to receive the toy as inducing "sadness." This approach to measuring the direct relationship between exposure to television commercials and various emotional and social outcomes would appear worthy of replication and generalization

Learning. Children's requests provide an opportunity for parental teaching about consumption. This focus, however, has not been pursued in research. It would seem, for example, that parents' responses to children's requests could help to teach the child about the realities of the marketplace—whether explicitly or implicitly. In the Atkin (1975g) survey, the most frequent reason for parental denial of toy requests was "expense" followed by "poor value." Very few parents simply said "no" without further explanation (The chapter in this volume on "Consumer Socialization" is a fuller account of this perspective)

SUMMARY AND NEEDED RESEARCH

Since the foregoing analysis is based on such scattered and incomplete research, we must consider it

only a source of hypothesis for future studies These propositions seem worthy of further research.

- *Parental concern* Parental attitudes toward children's television advertising are generally negative, but are probably not very strongly held or important in their lives. Parents seem willing to pay the price of children's advertising if the alternative were discontinuing children's programing However, they favor increased regulation
- *Parental mediation of viewing behavior* Levels of parent-child co-viewing vary by time of day and are lowest, as might be expected, for children's programs. Co-viewing is considerably less prevalent than children viewing alone Viewing rules for children appear to be more common among college-educated parents. However, parents from higher social-class levels may be giving what they consider to be socially-desirable responses to the questions asked in research, thus, the actual exercise of parental viewing rules needs better documentation
- *Children's requests to parents* Purchase requests generally decrease among older children They vary by product and are highest for products frequently consumed by children (such as cereals) or of particular interest to them (such as toys) Exposure to television advertising is found to be associated with children's request for both toys and cereals
- *Parental yielding denial* Yielding to children's purchase requests varies by product category, and seems to increase with the age of the child. Yielding may also be associated with parental attitudes toward television advertising
- *Outcomes: learning and conflict.* Disappointment, conflict, and even anger are found when parents deny requests. Television exposure seems linked to these outcomes How parents teach good consumer habits when responding to child-initiated requests needs systematic study.

All of these themes, parental mediation of the effects of television advertising is certainly one of the most important topics for future research. The existing tentative findings badly need replication. New studies must be initiated to describe the nature of parent-child exchanges about advertised products and children's purchase requests.

Describing and analyzing interactions within families is a difficult research task. Because of the distortions of self-reports, greater use should be made of direct observation and unobtrusive research methods. Studies must also observe family interactions over longer periods of time than in current studies. Parent-child relations are hardly limited to those surrounding the influence of television advertising on children's purchase requests; future studies must place family interaction about consumption into the larger context of ongoing family exchanges. Such studies of the mediation of television advertising by parent-child interactions will be among our most difficult research undertakings. They will also be among the most significant.

Chapter 11

SUMMARY OF RESEARCH FINDINGS

No one disputes the proposition that television advertisements have *some* effect on those who view them, if only in persuading viewers to try a sponsor's products. Given the variety and pervasiveness of television advertisements and the many specific issues we have identified, it seems likely that the "effects" of television advertising are multiple. Moreover, even among the special audiences with which we are concerned in this report—children 2 to 12—the range of variation among individual viewers is great. Children differ in tastes and interests, in television viewing patterns, in levels of cognitive ability and emotional maturity, in family circumstances, in school experiences, and in peer group and community influences. All of these variables may affect the impact of television advertising upon children.

Thus, we are dealing with a complex set of stimuli, with a variety of possible effects, and with a diversified population. Our major effort, therefore, has been to identify the specific issues which seem to be most amenable to research. We have attempted to identify the hypotheses which link specific, definable stimuli with specific, measurable outcomes, and which include, where appropriate, relevant mediating variables. We have also tried to evaluate the significance of these possible outcomes in terms of the basic principles already established for regulating advertising to children—that is, the FTC's requirement that advertising not be "deceptive" or "unfair" and the NAD's mandate "to ensure that advertising directed to children is truthful, accurate, and fair to children's perceptions."

In the preceding chapters, we have reviewed the existing research in terms of the 10 key issues which were selected as the framework for this report. In this chapter, we shall step back from this framework, which is oriented to currently outstanding issues, in order to summarize the present state of knowledge in terms of what is known about the links between the *stimulus properties* of advertising, the *possible outcomes* of children's exposure to advertising, and the role of *mediating variables* in affecting these outcomes. We present this alternative perspective in order to identify areas of relative strength and weakness in the body of existing research and to provide a broader background for our overall recommendations for future research, presented in the next chapter.

Thus, on the basis of our analysis of issues and existing research, we have derived the following schematic list of stimulus properties, proposed outcomes, and mediating variables. The list is almost certainly incomplete, but it provides a means for identifying the most important variables and the possible links among them.

I. Stimulus Properties
   - A. Amount and placement of advertising
   - B. Program-commercial separation practices
   - C. Nature of products advertised to children
   - D. Commercials *not* directed at children (drugs, etc.)
   - E. Content and techniques of commercials
     1. Format and audio-visual techniques (animation, music, pacing, special effects, etc.)
     2. Characters and spokespersons
     3. Product claims, disclosures, and disclaimers
     4. Premium offers

II. Possible Outcomes
   - A. Intended effects of advertising
     1. Attention to and recall of product brands and attributes
     2. Desire for advertised products
     3. "Trial and repeat purchases" of products or purchase requests to parents
   - B. Unintended effects of advertising
     Short-range
     1. Confusion between program and commercial materials; failure to understand selling intent of commercials.
     2. Failure to comprehend product attributes or disclaimers (complexity of assembly or operation, role of a food product in a "balanced diet," etc.)
     3. Incorrect (exaggerated) assessment of product performance or of satisfaction provided by product
     4. Encouragement of unsafe behavior through imitation

Mid-range

5 Encouragement of "inappropriate" standards for consumer choices (sweetness or "fun" rather than nutritional value; premiums rather than product attributes, etc.)
6 Promotion of parent-child communication and/or conflict
7 Learning about workings of marketplace and advertising (e.g., comparing advertising claims with actual product)

Long-range

8 Encouragement or reinforcement of unhealthy or hazardous behavior (e.g., poor nutritional habits, drug abuse)
9 Encouragement or reinforcement of social values (e.g., sex role or other stereotyping, distrust or cynicism toward society, unselfishness)
10 Development of consumer skills

III Mediating Variables

1 Child's characteristics (age, cognitive development, sex, socioeconomic status, intelligence, etc.)
2 Child's viewing patterns—volume of exposure to advertising
3 Parent-child interactions (parental control of viewing, co-viewing, control of consumption)
4 Other sources of consumer information (print, peers, school, stores, other TV content, etc.)

STIMULUS PROPERTIES

The existing literature provides fairly detailed and extensive descriptions of the stimulus properties of television advertising directed at children. The two principal sources of this information are self-regulatory codes and content analyses. The former, the NAB and NAD codes, specify what is and what is not permitted in children's advertising to children, but, of course, these guidelines are prescriptive rather than descriptive of the actual content of children's commercials. Content analyses (e.g., Winick et al., 1973; Atkin, 1975d; Barcus 1975 a & b) are more analytical, typically describing a sample of commercials according to such categories as products, audio-visual techniques, characters and frequency. However, in the process of breaking down and coding specific attributes of commercials, the researcher sometimes neglects the affective dimension of each commercial *as a whole*—even though this may well be the most salient aspect of a commercial's impact on viewers. Nevertheless, content analyses are useful in defining the nature of the advertisements viewed by children, and there is a continuing need for periodic analyses to keep the knowledge of actual practices up to date.

POSSIBLE OUTCOMES

Virtually all of the existing research is based on the assumption that advertising *does* have an impact on children. Thus, studies in this area have generally been designed to test the relative effectiveness of *specific* techniques (e.g., premium vs. no-premium offers, male vs. female actors, clustered vs. dispersed placements of ads). Because of the specificity of these studies, and the small sample of subjects they typically employ, their results can be generalized only to a limited degree. On the other hand, the broader survey-type studies, which attempt to assess the impact of advertising on actual attitudes and behavior, raise the question of the validity of self-reported data. In addition, the existing survey-type studies do not always examine their results in terms of specific measures of children's exposure to television advertising.

With these qualifications in mind, we can nevertheless reach some tentative conclusions about the effects of television advertising for children. We will look first at what is known about the intended effects of television advertising, then at evidence of unintended effects.

Intended effects. It is clear that children pay attention to television commercials, though the amount of attention seems to be dependent upon a number of variables. Research indicates that a child's attention is likely to be somewhat greater to (1) commercials for products relevant to children (Wartella and Ettema, 1974), (2) commercials with a greater degree of audio complexity (Wartella and Ettema, 1974); (3) commercials with a high level of physical action (Rust and Watkins, 1975), and (4) commercials shown in a clustered format (Atkin, 1975b). Other research, based on television programing rather than advertising, suggests that a child's attention is enhanced by the presence of both auditory elements, including lively music, singing, rhyming, and sound effects; and visual elements, including active movement, animation, and visual changes in general (Levin and Anderson, 1976).

There is also evidence from a number of studies about children's learning from television commercials. In a survey of mothers of preschool children, a majority of respondents said that their children sang commercial jingles learned from television (Lyle and Hoffman, 1972) Another survey of children (2 to 6 years) and their mothers found that television advertising was the most important source of new-product information for cereals and toys (Howard, Hulbert, and Lehmann, n d.) A series of experiments by Atkin (1975b & c) found that a majority of the children successfully recalled products and product attributes after being exposed to commercials for those products.

The Atkin experiments also tested the relative effectiveness of different strategies and formats of commercials (e.g , premium offers vs. no premiums, "rational" vs "emotional" presentations of a product, video disclaimers vs both audio and video disclaimers) In most cases, the alternatives did not produce significant differences in learning, although recall was greater when an ad made "modest" rather than "exaggerated" claims for product performance, when the children were exposed to an ad twice instead of once, and when a disclaimer ("batteries not included") was presented both auditorially and visually, rather than just visually. In another experiment, comprehension and recall of a disclaimer were shown to be increased when its wording was simplified (Liebert et al , 1976)

The impact of advertising on children's attitudes and behavior are of particular interest, since the most basic defining characteristic of advertising is its persuasive intent. The existing evidence indicates that advertising is at least moderately successful in creating positive attitudes toward a product and in stimulating requests for the product In Lyle and Hoffman's survey (1972) of mothers of preschoolers, 87 percent reported that their children asked for food items they saw advertised on television, and 91 percent reported requests for toys advertised on television. A field study conducted during the pre-Christmas period found that requests for heavily advertised toys and games increased by 5 percent (Robertson and Rossiter, 1976) Several laboratory studies (Goldberg and Gorn, 1974, Liefield and Norsworthy, 1974) have found modest correlations between children's exposure to specific television advertisements and increased short-range desire for the advertised products An experiment by Atkin (1975b) demonstrated that children exposed to an antilittering public service announcement were less likely to litter than subjects who did not see the announcement

In other experiments, few significant differences have been found in children's desire for or requests for products which were advertised using different techniques. In the Atkin experiments, for example, "rational" vs. "emotional" appeals for a cereal, male vs female announcer voices, and dispersed vs. clustered formats all ...red about equally effective in their persu... ness, While repeated exposure to the same commercial increased children's recall, it did not lead to an increase in their liking or desire for the advertised product (Atkin, 1975c, Gorn and Goldberg, 1976b). However, the presence of the "batteries not included" disclaimer in *both* audio and video tracks (vs. audio only) decreased the children's desire for the product at the same time that it increased their recall of the qualification (Atkin, 1975b).

In terms of "source effects," there is evidence from a number of studies (not all conducted with television advertising) that associating a product with an endorser can significantly change children's attitudes toward that product (Hyams et al., 1975, Iskoe, 1976) An experiment by Atkin (1975b) suggests that endorsement of a product by a figure not liked by children can actually diminish the product's appeal Adults, in general, seem to be more effective than children as product presenters, although adults shown *with* children are the most effective ... all (Robertson et al., 1975; Gardner, 1975)

Finally, the evidence regarding the effectiveness of premium offers is mixed Shimp et al (1975) reported no differences in children's attitudes toward a cereal advertised with and without a premium offer Atkin (1975b) found a more positive response to a breakfast cereal advertised with a premium offer, but he reported no differences in the children's expressed intention to request the purchase of the product. On the other hand, two surveys of mothers indicated that children's actual cereal requests are frequently based on advertised premiums (Ward, Wackman, and Wartella, 1975, Atkin, 1975g) Because of the inconclusiveness of these results and the continuing debate over premium offers in children's advertising, this is a topic that calls for further study.

Unintended effects Certainly, most advertisers do not deliberately set out to confuse or mislead children, nor to promote unsafe, unhealthy, or

socially undesirable behavior. Nevertheless, critics have claimed that such outcomes may in fact be the result of children's exposure to television advertising, and most of the policy issues we have identified lie in this area of incidental learning and other unintended effects. We will first consider the evidence regarding the short-term effects of individual commercials or specific techniques, then we will review the evidence concerning the cumulative impact of television advertising over time.

Perhaps the most fundamental short-term issues is the ability of children to distinguish program from commercial material, and the implications if children are unable to do so. There is evidence from a number of studies that younger children are very likely to be confused about the distinctions between programs and commercials. The evidence also indicates that as children become older, they often begin to distinguish between programs and commercials merely on the basis of superficial characteristics, such as duration or animation. Apparently, development of an understanding of the most salient differences—the selling intent of commercials—is a process that takes time. Several studies have attempted to trace the stages in this process and to delineate how children understand and respond to television advertising at each stage (Rubin, 1972; Ward and Wackman, 1973; Robertson and Rossiter, 1974).

The possibility of children being confused or misled by specific features of commercial messages has also been the subject of a few studies. For example, one aspect of the issue of premium offers is the possibility that inclusion of such offers makes it more difficult for children to determine what is being sold, and that these offers distract attention from other more important features of the product. One study (Rubin, 1972) suggests that premium offers create such confusion, at least among young children. Two more recent studies do not confirm this finding (Shimp et al., 1975; Atkin, 1975). However, each of these studies employs different measures, and so they are not directly comparable. Moreover, their usefulness is limited by their small samples. Given these mixed results, more research will be needed before this issue can be resolved.

Another area of unintended effects is the possibility that children will learn unsafe or undesirable behavior from commercial messages. The industry's self-regulatory codes recognize this possibility by prohibiting the use of violence and encouraging the portrayal of positive social values. Even so, the potentially harmful messages actually being conveyed to children by individual commercials are not always obvious. For example, a cereal commercial, which associated the product with wild-growing edible plants led some children to label similar-appearing poisonous plants as edible (Poulos, 1975). The incidence of such potentially hazardous messages is almost certainly quite small, but these results suggest that careful attention needs to be given to the totality of information conveyed to children by commercials.

The issue of the impact of adult-oriented advertising on children is entirely an issue of unintended effects, since these messages concern products presumably not of interest to children. Nevertheless, we know that children do most of their viewing at times other than those when children's programming is broadcast. Research evidence on the consequences of the exposure of children to adult-oriented advertising is extremely limited and has focused primarily on the impact of advertising for nonprescription drugs. The single experimental study on this topic tested children's responses to a commercial for an over-the-counter decongestant medicine (Atkin, 1975). Subjects shown this ad, along with a number of other child-oriented ads, were reported to have paid "substantially less" attention to the medicine commercial. Nevertheless, the children were found to have been affected by the ad: twice as many of the children exposed to this ad said "they would take a pill to combat a stuffed-up nose." Because of the artificiality imposed by the experimental design for this study—immediate responses to a single exposure to one commercial-message in a laboratory setting—the implications of the study, and of similar studies by Atkin and others, are not easily determined.

A final area of possible unintended effects on children's advertising concerns the role of commercials in promoting conflict between parents and children. We have already reviewed evidence that parents receive requests for the purchase of products advertised on television for children. Surveys and direct observation of parent-child interactions indicate that parents (usually mothers) deny from 31 percent (Wells and Losciuto, 1966) to 38 percent (Atkin, 1975f) of children's requests for cereals, and from 57 percent (Robertson and Rossiter, 1976b) to

69 percent (Caron and Ward, 1975) of children's requests for toys Robertson and Rossiter report that slightly more than one-third of the children they interviewed indicated disappointment over denial of their toy requests The expressions of disappointment were most frequent among younger children.

Atkin (1975e) found that one-sixth of children he surveyed said that they argue with their mothers "a lot" after denial of toy requests, while another one-third say they argue "sometimes " Atkin concluded that exposure to television advertising is indirectly linked to conflict by increasing the frequency of purchase requests and subsequent denials In a study based on direct observations in a supermarket, Atkin (1975f) found that conflict followed in two-thirds of the cases of mothers' denying children's cereal requests The children expressed unhappiness one-half of the time, although Atkin described such conflict as being "seldom intense or persistent." In an experimental study, Goldberg and Gorn (1976) found that children exposed to a toy commercial responded more negatively to a parental denial of a request for the toy than children who had not seen the commercial. Children who had seen the commercial also projected a greater level of disappointment to the possibility of denial of a request for the toy More needs to be known about the role of advertising in providing disappointment to the possibility of denial of a request for the toy. More needs to be known about the role of advertising in providing disappointment and family conflict, and whether such conflict places significant strains on the relationship between parents and children

In regard to the possible longer range, cumulative consequences of children's television advertising, most of the questions concern the impact of commercials upon children's development of consumer skills and their formation of behavioral patterns and attitudes in drug and food usage, as well as the development of broader social values. Once again, these are issues for which existing research offers little guidance A body of research is available on the process of children's consumer socialization, but little of it focuses explicitly on the contribution of television advertising. It is clear that parents still play the dominant role in training their children for an adult consumer role. Whether television aids this process, or conflicts with it, remains to be determined

Research on the long-term effects of nonprescription drug advertising indicates that children with a "high exposure" to such advertising are somewhat more likely to worry about getting sick, to feel better after taking medication, and to perceive higher incidences of illness in people generally (Atkin, 1975e). No positive correlation has been found between children's exposure to over-the-counter drug advertising and their attitudes toward usage of illicit drugs (Milavsky et al , 1975; Hulbert, 1974; Atkin, 1975e). Evidence on children's usage of proprietary medicines is mixed Atkin found no link with exposure to advertising, while Milavsky et al reported a moderately positive relationship

Knowledge about patterns of food consumption and nutritional knowledge and attitudes is also limited. Surveys by Atkin (1975e & g) provide preliminary indications that children's exposure to food advertising "affects general . . nutritional orientation." He found that "heavy" viewers of Saturday morning television were more likely to eat the types of foods advertised on television. They were also more likely to ask parents to buy advertised cereal brands and to eat at advertised fast-food restaurants. Finally, these children were less disapproving of sugar, gave a higher nutritional rating to sweetened cereals, and believed more strongly in the value of children's vitamin supplements These surveys also indicated that children who watched messages on good nutrition (both public service announcements and segments within cereal commercials) were more likely to give high nutritional ratings to the specific foods emphasized in these messages and to believe that a nutritious and balanced breakfast is important.

MEDIATING VARIABLES

Relatively extensive information is available regarding the influence of the various mediating variables on the effects of television advertising on children. In fact, more of the existing research deals with the role of the mediating variables than with direct links between independent and dependent variables.

The mediating variable which most clearly emerges among the many studies is the child's age. For example, the research we have reviewed indicates that young children (typically, below age 5 or 6) are more likely to believe claims they hear in commercials (Ward and Wackman, 1973), less likely to recall specific features and information from commercials they have seen (Rubin, 1972), and more likely to be confused or to fail to understand disclaimers (Atkin, 1975b, Liebert et al ,

1976). Perhaps most striking is finding that young children frequently do not understand the selling intention of advertising (Rubin, 1972, Robertson and Rossiter, 1974) Taken as a whole these studies demonstrate that as children grow older, they become more sophisticated in dealing with television advertising. This finding is hardly surprising in light of the considerable body of psychological literature documenting stages of child development in other areas. In fact, much of the research on age-related differences in relation to television advertising has been based on the prior work of Paiget and other child-development psychologists.

While existing research firmly establishes that age of viewers is an important mediating variable, the significance of this finding for policymaking is much less clear. From cross-sectional studies of different age groups, it appears likely that children's difficulty in understanding and assessing television advertising is primarily a short-term phenomenon. However, from a policy standpoint, the question is whether negative effects, even in the short term, are tolerable. Industry spokesmen take a positive view, suggesting that trial and error learning from television advertising provides children with experiences necessary for developing sophisticated adult consumer skills.

Even if exposure of young children to television advertising is ultimately judged to be a significant problem, it is not easy to envision practical and effective remedies Action for Children's Television has proposed that all advertising be removed from children's programs, but we have seen that children's programing accounts for only about 15 percent of children's viewing time. Thus, banning commercials on children's programs would not prevent children from being exposed to advertising The Canadian Association of Broadcasters has banned all advertising to children during *weekday* hours, on the assumption that only preschool children would be viewing television during those times

Race and sex are two other mediating variables which apparently affect children's responses to television advertising For example, summarizing a number of experiments, Atkin (1975b) found "significant . . although modest" differences between the responses of white and black children: The white subjects paid more attention to commercials and had slightly higher levels of recall and information acquisition Atkin acknowledged, however, that uncontrolled differences in socioeconomic status may account, at least in part, for these results. Evidence on sex-based differences is mixed, but is manifested most clearly in the attraction of boys and girls to products (primarily toys, such as dolls or racing cars) designed to appeal primarily to one sex (Atkin, 1975c).

Another mediating variable is the level of a child's exposure to television advertising Heavy television viewing seems neither to accelerate nor to retard children's understanding of commercials, although it does appear, in general, to be correlated with more favorable attitudes toward advertising and advertised products. There is little evidence that repeated exposure to individual commercials has any incremental effect on either children's attitude toward desire for the advertised product. Experimental studies (Gorn and Goldberg, 1974, 1976b; Atkin, 1975b) indicate that the primary effect of repetition is to prevent children from forgetting a commercial's content rather than greater persuasion.

The influence of parents clearly emerges as a final important mediating variable As the recipients of children's purchase requests, parents directly mediate most of their children's consumer behavior. The existing research on this topic has focused on parental compliance with or denial of purchase request (Wells, 1965; Atkin, 1975b; Caron and Ward 1975) Little attention has been given to the possibility that positive learning is provided by these interactions. Parents (especially mothers) also play key roles in controlling children's television viewing, and there is some evidence of a discrepancy between mothers' reports of the degree of this control and the level of parental control reported by their children (Rossiter and Robertson, 1975) This finding suggests the need for further study of how parents actually monitor and regulate children's viewing

Part III

Chapter 12

RECOMMENDATIONS FOR FUTURE RESEARCH

As we have noted, scientific inquiry into the effects of television advertising on children is still in its infancy. The number of studies specifically addressed to this topic is quite small, and a mere handful of investigators are responsible for a majority of these. Moreover, more than three-quarters of these studies have been published since 1974. Considering these facts, as well as the complexity of the issues and the limitations of current methods, it is not surprising that few firm policy-relevant conclusions can be reached at this point.

An even more fundamental reason for the lack of policy-relevant findings is that the questions which have been asked by researchers have often borne little relation to those asked by policymakers. As we indicated in the preceding chapter, many of the studies we reviewed attempted simply to document the *intended* effects of advertising. However, a demonstration that a particular commercial or advertising technique is persuasive, even irresistibly persuasive, does not necessarily lead to any directly policy-relevant conclusions. Similarly, what are policymakers to do with research findings which confirm age-related differences as a mediating variable in the effects of television advertising? This is not to say that such research is not useful in developing a better understanding of how advertising works. However, future investigations must go beyond the general lines laid down by the studies reported to date if they are to be helpful in clarifying and resolving the important issues in this debate.

We are proposing that new research efforts be directed in three areas more closely linked to ongoing policy concerns. We conceive of these three areas as "levels" of generality: (1) *"midlevel" research* to test specific hypotheses or premises upon which existing or proposed regulations are based, (2) *"macrolevel" research* on the role of television advertising in children's lives; and (3) *"microlevel" research* to examine how children perceive specific, individual commercials.

MIDLEVEL RESEARCH

As we have noted, one of the factors contributing to the gap between research and policymaking is the fact that much policy deliberation (and many actual code provisions) deals with the prohibition or requirement of specific advertising practices, without identifying the specific outcomes presumed to be linked with those practices. However, many outstanding policy questions can be usefully addressed using existing research methods. Each of the preceding literature review chapters contains suggestions for such research. The following listing simply illustrates the kinds of specific studies which seem likely to yield practical guidance on current issues:

What constitutes an "appropriate device" to separate programs and commercials?

> The NAB code requires that commercials directed at children "shall be clearly separated from program material by an appropriate device." In the absence of any more specific definition, each network has created a different separation device, as have the independent stations. No testing has been done to determine whether any of these devices do in fact assist children in distinguishing between programs and commercials. If some or all of the devices are proved to be effective, there are also the questions of how effective they are and how the various current devices compare. Finally, alternative devices, such as placing commercials within a visual "frame" (a technique now employed by some stations to identify so-called "free speech messages"), could be tested and compared. This data would be of immediate use to the NAB in refining its definition of an appropriate separation device.

How effective are commercial food messages in communicating nutritional information to children?

How much responsibility advertisers should bear for a nutritional education has been the subject of a continuing controversy. Currently, the FTC is considering adoption of a complex trade rule regulation requiring disclosure of a considerable amount of nutritional information in television and other advertising for food products. Although not specifically aimed at children's television advertising, the proposed regulation would affect food commercials for children. Industry spokesmen argue that the brevity of television commercials make them inappropriate vehicles for such disclosures, and they suggest that the addition of more nutritional information could conceivably produce more confusion than education among children. Testing children's perceptions of food commercials containing the proposed disclosures could establish the validity of these industry assertions. Experiments using a variety of audio and visual techniques could also determine the most effective means for communicating nutritional information to children.

How do children respond to adult-oriented advertising?

While the NAB and NAD advertising guidelines are intended to provide special protection to children, they apply to no more than 15 percent of all the television advertising that children see. Defenders of the guidelines argue that children are interested only in products relevant to them and therefore disregard obviously adult-oriented advertising. They also argue that most viewing by children of adult commercials takes place in the company of adults (parents), who mediate the effects of such advertising.

Neither of these assertions has been subjected to systematic testing, and the existing evidence is sparse and inconclusive. A single experiment indicated that although children's attention to an adult drug commercial was considerably less than to child-oriented commercials, the exposure produced modest attitudinal changes in the children (Atkin, 1975b).

One specific focus of concern about the effects of adult advertising on children is advertising for over-the-counter drugs. However, the issue of children's responses to adult advertising is a broader one. Studies of children's attention to these commercials, and their effects on children's knowledge, attitudes, and behavior are much needed. Descriptive studies of the extent and nature of adult-child co-viewing and its influences as a mediating process would also provide important data for evaluating the significance of children's exposure to adult advertising.

MACROLEVEL RESEARCH

The research we are proposing here is intended to determine, for the first time, the importance of television as an influence on children—in comparison with other major socializing factors, such as parents, relatives, peers, school, church, and other media. There is a pressing need for studies which could help settle the prolonged controversy between those who believe television is simply an innocuous source of leisure-time entertainment, which children quickly learn to treat with a casual and healthy skepticism, and others who believe that the medium has become a primary shaping force in children's lives, competing strongly with the traditional roles of parents, school, and church. The research we are proposing would *not* be focused on television, but rather on children and the shaping forces in their environment, *including* television and television advertising.

Such a program of research would be neither simple to organize nor inexpensive to conduct. It would undoubtedly require the extension of current research methods and the development of new techniques of measurement. Particular attention would have to be given to the validity of observational and survey measures. Despite these considerable

difficulties, we believe that the effort would be justified by the importance of the results, not only to issues relevant to television and television advertising, but also to a variety of other issues related to the quality of children's lives in this country

We are not proposing a multiyear, longitudinal study Following the development of a group of children over an extended period of time might well produce the most revealing data, but the cost of carrying out such research, and the long delay in reporting results, make this a less attractive alternative Rather, we envision a program of research with a relatively large and heterogeneous population of children (and other members of their families). It would employ a variety of techniques and measures to determine the relative importance of (and the interactions between) the sources from which children acquire the information that influences their values and attitudes and shapes their behavior Among the project's objectives would be an examination of the role of television within the context of family experience—and an examination of family interactions within the context provided by television While some time would be required for planning this research project, for solicitation of proposals, for site selection, and for startup, it should be possible for this research to be carried out and reported within a 2- to 3-year period

MICROLEVEL RESEARCH

The research we are proposing here is at the opposite end of the spectrum from the preceding recommendation. The objective of this microlevel research would be to determine how well actual television advertisements for children comply with the NAD's admirable principle that children's commercials be "truthful, accurate, and fair to children's perceptions " This research would resemble the type of studies routinely conducted by advertising agencies in preparing commercials It would focus on commercials as whole entities as well as on the specific techniques or component elements which were the concern of most of the academic studies reviewed in this report

However, the research we are proposing differs from that conducted by advertising agencies in several important ways. It would be conducted systematically, it would employ randomized samples of commercials as well as of children, it would examine unintended as well as intended effects; and, of course, it would be publicly available While the research would concentrate on commercials intended for children, it should also include adult-oriented advertisements This research would not be costly, nor would it require elaborate facilities to conduct it

The purposes of this research would be twofold. First, it would allow the development of methods to identify specific commercials which are confusing or misleading to children. Second, it would lead to the accumulation of data about children's perceptions of commercials (based on children's responses to a range of actual commercials), which could be used to determine the comprehensibility and fairness of advertising for a particular product or product category or the effectiveness of a particular technique. Ultimately, it may be possible to develop a standardized instrument to test commercials prior to broadcast to ensure that they are, in fact, "truthful, accurate, and fair to children's perceptions "

Appendix A

EVALUATION OF INDIVIDUAL STUDIES

The following 21 articles and papers are included in this analysis:

1. E. Wartella and J. Ettema, A Cognitive Developmental Study of Children's Attention to Television Commercials. *Communication Research*, Volume 1, Number 1, January 1974.
2. C. E. Lewis and M. A. Lewis, The Impact of Television Commercials on Health-Related Beliefs and Behaviors of Children. *Pediatrics*, Volume 53, Number 3, March 1974.
3. J. P. Liefeld, et. al., Television Advertising and Children: An Experimental Study. Working paper, University of Guelph, Guelph, Ontario.
4. R. S. Rubin, An Exploratory Investigation of Children's Responses to Commercial Content of Television Advertising in Relation to their Stages of Cognitive Development. Ph. D. dissertation, University of Massachusetts, 1972.
5. S. Ward, D. Wackman, and E. Wartella, Children Learning to Buy: The Development of Consumer Information Processing Skills. Marketing Science Institute Report, November 1975.
6. T. A. Shimp, R. F. Dyer, and S. F. Divita, Advertising of Children's Premiums on Television: An Experimental Evaluation of the FTC's Proposed Guide. Unpublished manuscript. George Washington University, 1975.
7. A. Caron and S. Ward, Gift Decisions by Kids and Parents. *Journal of Advertising Research*, Volume 15, Number 4, August 1
8. S. [illegible]d and D. Wackman, Family and Media Influences on Adolescent Consumer Learning. *American Behavioral Scientist*, Volume 14 [illegible]ber 3, (January/February 1971), pages 415-427.
9. T. G. Bever, M. L. Smith, B. Bengen, and T. G. Johnson, Young Viewers' Troubling Response to TV Ads. *Harvard Business Review*, November-December 1975.
10. J. R. Rossiter and T. S. Robertson, Children's Television Viewing: An Examination of Parent-Child Consensus. *Sociometry*, 1975, in press.
11. T. S. Robertson and J. R. Rossiter, Children and Commercial Persuasion: An Attribution Theory Analysis. *Journal of Consumer Research*, Volume 1, June 1974.
12. S. Ward and D. Wackman, Children's Information Processing of Television Advertising, in P. Clarke (ed.), *New Models for Mass Communication Research*, Beverly Hills: Sage, pages 119-146. 1973.
13. M. Goldberg and G. Gorn, Children's Reactions to Television Advertising: An Experimental Approach. *Journal of Consumer Research*, Volume 1, September 1974.
14. C. Atkin, Effects of Television Advertising on Children. First Year Experimental Evidence. Report #1, *TV Advertising and Children Project*, Final Report, June 1975.
15. C. Atkin, Effects of Television Advertising on Children, Second Year Experimental Evidence. Report #2, *TV Advertising and Children Project*, June 1975.
16. C. Atkin, Effects of Television Advertising on Children. Survey of Pre-Adolescent's Responses to Television Commercials. Report #6, *TV Advertising and Children Project*, July 1975.
17. J. R. Milavsky, B. Pekowsky, and H. Stipp, TV Drug Advertising and Proprietary and Illicit Drug Use Among Teenage Boys. *Public Opinion Quarterly*, Winter 1975-76.
18. Howard, Hulbert, and Lehmann, An Exploratory Analysis of the Effect of Television Advertising on Children. Unpublished.
19. T. S. Robertson and J. R. Rossiter, Short-Run Advertising Effects on Children: A Field Study. *Journal of Marketing Research*, Volume XIII (February 1976), pages 68-70.
20. J. R. Rossiter and T. S. Robertson, Children's TV Commercials: Testing the Defenses. *Journal of Communications*, Volume 24, Autumn 1974.

21 R Faber and S Ward, Validation of Mother-Child Purchase Influence Frequency Reports by the Multitrait-Multimethod Matrix Technical Report, Marketing Science Institute, April 1975

All of the studies included in these reviews are concerned with the relationship between TV advertising and some child-oriented outcome, such as purchase behavior or cognitive learning Since these studies investigated a variety of questions and used different outcome measures, they will be considered independently. For the purposes of this overview, however, it may also be informative to examine the area as a whole, so that some tentative "state of the art" generalizations about the research methods used may be made, discussing the following aspects of the studies population, sample selection procedures, sample size, outcome measures, unit of analysis, statistical tests, and experimental design

A. Populations

The populations investigated by these studies are fairly diverse The age or grade level of the subjects was specified in all studies Ages of the children ranged from as young as 2 years (study 18) to 12th graders (study 8), however, most of the subject populations were attending preschools or elementary schools The investigators often mentioned the social class of the subjects, and a range of SES levels represented in at least a few of the studies The choice of areas of the country from which to select the population for study appears usually to have been determined by the investigators location, as a result, several areas are underrepresented or excluded (e.g , the West Coast)

B. Sample Selection Procedures

(Note Since all four studies by Rossiter and Robertson—10, 11, 19, and 20—apparently used the same subject population, they will be considered as a single study in this and the following section on sample size)

Five of the 17 separate studies (5, 7, 8, 12, 17) utilized some form of random selection procedure. Studies 7 and 12 randomly selected individual subjects. Studies 5 and 17 randomly selected individuals within schools, however, the method of selecting schools was deliberate in one case (17) and unclear in the other (5) Study 8 randomly selected classrooms within schools which were not randomly selected Several of the studies (2, 14, 15, Rossiter and Robertson studies) attempted to include all subjects within participating schools, in all instances the method of selecting schools was not random or was unspecified In eight of the studies (1, 3, 4, 6, 9, 13, 16, 18) the selection of subjects was not random or was unspecified Thus, it is unfortunate that the findings of most of these studies cannot be generalized beyond those students actually participating One investigator (Ward) participated in four of the five studies which used random selection to some degree, other investigators in this area could increase the generalizability of their findings by incorporating random selection procedures into their studies

C. Sample Size

The sample sizes used in these studies were generally quite large The sample sizes ranged from 30 (3) to 1,094 (8) All but five had more than 100 subjects, and eight included at least 250 subjects It should be noted that several studies (2, 5, 7, 12) had difficulty in getting subjects to participate or suffered from high attrition rates, thus reducing the size (and perhaps reducing the representativeness) of the intended sample

D. Outcome Measures

This area is characterized by the existence of a wide variety of measures of the effects of TV advertising on children It is appropriate here to comment upon some general characteristics of the instruments used in these studies

All but two of the studies (1, 11) utilized nonstandard outcome measures, that is, the investigator designed the instrument specifically for the purposes of the particular study Of the other two, one (11), used a *modified* version of a previously reported interview procedure, and the other (1), used a previously reported attention measure. The absence of standard test instruments is striking, and presents serious problems for consumers of this research (a) it makes direct comparisons of findings across studies difficult, since it is often

not possible to determine if the various measures are actually tapping the same outcomes, and (b) the fact that many of these investigators designed the outcome measures specifically for the purposes of their studies opens the possibility that their expectations may have been reflected in the design of the test instruments or procedures and thus influenced the findings For example, in attempting to determine how (or whether) attitudes toward TV advertising change with age, there is an unlimited number of interview questions which the child can be asked even if the different investigators all adhered to a structured, closed-ended interview format. It is obvious that the choice of which specific questions are asked may dramatically affect the outcome of a study It would seem to be of foremost importance to develop valid and reliable measures of the outcomes investigated in these studies which can be meaningfully administered in different experimental situations More content-specific measures may also be an essential component of these studies, but they should ideally be supplemented with more general indices

In addition to content-specific differences between measures tapping similar outcomes, the investigators adopted various formats for gathering information open-ended vs close-ended questions, written vs verbal interviews, behavioral vs less "active" indices, mother vs child reports, etc Choice of form may influence the findings, and efforts should be made to determine the comparability of the various research strategies An example of such an effort is provided by study 21, in which the authors investigated the agreement between mothers' and children's reports of child purchase influence frequency The fact that their data indicate convergent validity for the two measures increases the confidence that can be placed in comparisons between studies using these different indices

In addition to differences in specific content and format among measures designed to tap similar outcomes, the studies demonstrate considerable diversity with respect to the outcomes which they attempt to investigate While this diversity may hinder efforts to make general statements about the effects of TV advertising on children, it seems to be a necessary outgrowth of the realization that TV's influence pervades many aspects of the child's life. In order to accurately gage its effects, various outcomes related to cognitive development and consumer behavior must be investigated. Short-term outcome measures predominate, long-term outcome measures are rare.

E. Unit of Analysis

There was complete homogeneity with respect to the choice of the unit of analysis in these studies All 21 studies considered the individual subject as the unit of analysis, although several of the investigators performed additional analyses on other units (e.g., products requested). Thus, the problem of attempting to compare the results of studies which utilize different analytical units is not an issue in this area

F. Statistical Tests

All but two of these studies (9, 18) report statistical tests of the significance of their findings, although in a few instances (2, 7, 8, 12) all possible tests are not specified or carried out. The choice and use of tests generally appears appropriate, with a few exceptions (multiple statistical comparisons (3, 14), use of parametric tests when nonparametric tests appear more appropriate (6))

G. Experimental Designs

Seven of the studies (1, 3, 4, 6, 13, 14, 15) utilized truly experimental designs to investigate the effects of TV ads on children All of these studies used randomization to some degree. In studies 1, 3, 4, and 13, individual subjects were randomly assigned to treatment conditions Subjects in study 6 were randomly assigned to experimental vs control conditions, however, it is unclear how subjects were assigned to the different experimental variations. While treatments were randomly assigned to groups of four subjects in study 14, it is unclear how the groups were formed; in addition, the procedure for assigning subjects to several measurement conditions is unspecified In study 15, subjects in each classroom were randomly divided into two

groups, and one of four treatments was randomly assigned to each group It is commendable that all of these experimental studies incorporated randomization into their research design, thus minimizing the possibility of pretreatment between group differences biasing the outcome

The remaining 13 studies can be classified as "descriptive", the investigator did not expose subjects to an experimental treatment, but simply obtained information about subjects' existing behaviors. While these studies offer interesting descriptions of the relationship between TV advertising and children's behaviors, the lack of experimental controls does not permit causal inferences to be drawn from these findings. Thus, a principal function of these studies may be to generate hypotheses for future experimentation

Considering that only about one-third of the TV advertising studies are experimental, one may be tempted to conclude that these studies constitute a methodologically weak area Such a conclusion may not be justified, however Several of the questions which the experimenters chose to investigate (e.g , the relationship between attitudes toward TV and age) may not be amenable to experimental methods In addition, experimental research in this area is plagued by serious limitations It is not clear at this time whether the experimental efforts provide the best or most important evidence as to the real-life effects of TV advertising on children While experimental controls allow causal inferences to be drawn about the treatment effects, there is reason for concern as to whether the artificiality of the experimental conditions accurately reflect actual viewing and reacting behavior. For example, most of these experiments were conducted in viewing situations away from the home, which were generally free from distractions These conditions undoubtedly result in increased attention to commercials. The authenticity of other aspects of the experimental settings, such as opportunities for choosing desired products, the actual material viewed, and length of viewing time, is also questionable. A very important qualification of the experimental studies involves the fact that they generally focused on very short-term effects of TV advertising It is possible that these effects may wash out over longer periods of time (e g , even in the time it actually takes to get to the store!)

In contrast, the 13 descriptive studies sacrifice experimental controls for closer approximations to real consumer activities To the degree to which questionnaire and interview responses accurately reflect subject behavior, these studies provide valid evidence as to TV advertising's effects on children in natural settings. Unfortunately, the validity of the data collected in this manner is difficult to assess

There appears to be two reasonable strategies for attempting to integrate the evidence provided by both types of research. The first involves comparing the results of surveys and experimental research. Agreement between the findings should increase our confidence in the validity of *both* types of research Lack of agreement would pinpoint particular research topics on which to concentrate future efforts

The second strategy involves designing "naturalistic experiments" which attempt to impose experimental controls and yet maintain a realistic atmosphere as well Studies which successfully meet these requirements would provide the strongest evidence concerning TV advertising's effects Two of the studies included in this review, one experimental (3) and one descriptive (19), have made efforts in this direction Study 3 investigated subjects' purchase request behavior following experimental viewing of commercial advertising Subjects accompanied their mothers to a local grocery store, where investigators posing as employees or shoppers observed and recorded their behavior. Study 19 attempted to assess the effects of TV toy and game advertising on children's toy and game preferences by surveying subjects before and after the pre-Christmas advertising peak While these studies have serious limitations (e g , study 19 is largely uncontrolled), they represent important attempts to combine the benefits of descriptive and experimental studies into a single research paradigm

A striking difference between the experimental and descriptive studies should be mentioned. Most (5/7) of the experimental studies are unpublished (3, 4, 6, 14, 15), while a majority (10/13) of the descriptive studies are published (all but 5, 16, 18). Therefore, if only published sources had been considered in this review, descriptive studies would have outnumbered experimental studies by 10 to 2. The predominance of descriptive studies in the published literature may be a result of the research preferences of the leading investigators in the field (e.g., 7 of the 12 published articles were authored by Ward et al., or by Rossiter and Robertson), or, it may be that the publication of early descriptive work encouraged later efforts which built directly on the preceding studies, and thus gained easy access into the published literature. Whatever the reason, it is unfortunate that many consumers of TV advertising research, whose main access to this literature is through journal publications, must rely almost exclusively on descriptive studies for information about the effects of TV advertising on children. In the future, increased emphasis on experimental studies in the published literature would provide a valuable supplement to the regularly appearing descriptive studies.

Study 1

A Cognitive Developmental Study of Children's Attention to Television Commercials. E. Wartella and J. Ettema. *Communication Research*, Vol. 1, No. 1, January 1974.

Purpose: To test the relationship between stimulus complexity of television commercials (with content controlled) and children's attention to the stimuli.

Population: Nursery school, kindergarten, and second grade students in an upper middle class suburban St. Paul, Minnesota, school.

Sample Selection Procedure: Unspecified

Sample Size: 120 (40 at each grade level)

Specific Treatment: Subjects were free to watch (or not watch) a television show (situation comedy). The original commercials were deleted and commercials manipulated in terms of stimulus complexity were inserted. Twelve commercials were used, grouped in three blocks, 1) irrelevant commercials, composed of four commercials concerning products of low relevance for children, 2) three relevant commercials concerning foods, and 3) five relevant commercials also concerning foods. The commercials varied as to visual and auditory complexity, as rated by a measure developed by Watt and Krull (1972). Four versions of the program were used, with the commercials rotated within the blocks so that each appeared as the first commercial in the block in one version (except for one of the block 3 commercials). Blocks were not rotated within the program.

Experimental Design: Within each of the three age levels, 10 children were randomly assigned to view each of the four versions of the program. Subjects viewed the program in pairs. Since blocks were not rotated, commercial content was not used as an independent variable (due to possible fatigue factors).

Outcome Measures: Attention was measured by a scheme devised by Ward, Levinson, and Wackman (1972). Attention was coded as full, partial, or none at given observation intervals. Full attention indicated that the child was in a viewing position with eyes on the screen; partial attention indicated that the child was in a viewing position with eyes off the screen, "apparently not listening," or verbally or physically reacting to the television content; no attention indicated that the child was not in a viewing position and eyes were not on the screen. Interobserver reliability on a subsample of subjects was 90.6%.

Unit of Analysis: Individuals

Statistical Tests: Yes (ANOVA)

Results: Analysis employed the observations of only the first two blocks. The authors predicated that differences in stimulus complexity of the commercials should produce differences in attention with the most complex commercial (high on both visual and auditory) receiving the most attention and the least complex (low-low) receiving least. It was also predicted that this difference should decrease with age. An attention score (the subject's

average attention across all observations during a single commercial) for each subject on each commercial was computed The attention scores were analyzed by a two-way ANOVA (age by stimulus complexity with repeated measures on the first factor A separate analysis was computed for each of the two blocks For the irrelevant product block, both main effects were significant, while the age x stimulus complexity interaction was not significant A comparison (not statistically tested) of the means indicated that kindergarteners had the highest mean attention and nursery schoolers the lowest mean attention, and that attention was highest for the high-visual/high auditory commercial and lowest for the high visual low auditory commercial The interaction was in the predicted directions (although not significant) the difference in attention to the high-high (h-h) and low-low (l-l) is greatest for nursery schoolers, smallest for second graders For the relevant product block, both main effects and the age x stimulus complexity interaction were significant Attention to these commercials was not ordered according to stimulus complexity (l-visual, h-auditory highest, l-l lowest) As predicted, the (h-h) (l-l) difference is largest for the youngest group The authors note that the fact that the irrelevant block came first may have influenced the insignificant interaction for that block, since the subjects may have been adjusting to the environment during that period

Further analyses were undertaken with an attention change measure, which is the sum of the changes in attention from one observation to the next for 12 observations marking transitions from commercials to programs and vice versa A one-way ANOVA for age was significant Nursery school children appeared to change the most in their attention from observation to observation The authors feel that this finding supports the hypothesis that younger children are more sensitive to shifts from program to commercial and vice versa Further data analyses demonstrated that, for the irrelevant block, mean attention scores of all children were higher for high-auditory than low-auditory commercials this suggests that variation in auditory complexity may be more important than variation in visual complexity (differences not tested statistically) In addition, high auditory commercials exhibit more movement toward full attention than low auditory commercials and the decline in attention for the former is generally more gradual

Success: The treatment effects partially supported the author's hypotheses of the effects of stimulus complexity on children's attention

Criticisms: The authors point out two weaknesses of the study 1) the older subjects had a uniformly high attention mean, which may have produced a ceiling effect depressing the different scores of these children—thus, "the issue of whether or not the influence of perceptual attributes declines with age remains open to debate," and 2) stimulus complexity only accounted for 2% of the variances in attention Thus, the absolute effect of this variable (while significant) was small The attention measure appeared to be more sensitive to the child's visual reaction than his auditory reactions For example, a child who was not in a viewing position and whose eyes were not on the screen would be rated "no attention" although he could have been listening quite attentively

The block 2 commercials differed in length—this factor may have had an effect on children's attention scores in addition to complexity Also, the commercials within blocks differed in specific content (e g , Burger King vs Gatorade) which may have influenced attention to them—children's familiarity or interest in the products apparently was not controlled It would seem to be more effective to create different versions (with different complexity levels) of one commercial and to present the different versions to different groups of subjects

The authors do not state why the third block data (representing intermediate ratings of complexity) were not reported It would be informative to know if finer gradations of complexity did not demonstrate a signficant effect on attention

It would have been informative to test the specific contrasts within factors with a post hoc test or, better yet, to have built planned contrasts into the analysis This would have been possible since the authors had a priori hypotheses about the outcome

Sponsorship: Office of Child Development

Published: Yes

Summary: This study suggests that the stimulus complexity of commercials and age are related to children's attention, and that the effects of

differences in stimulus complexity on attention decrease with age. The study's principal weaknesses are a possible ceiling effect for the older subjects, the fact that stimulus complexity only accounted for a small percent of the variance in attention, and the potential biasing effects of differences in length and specific content of commercials w[illegible] blocks

Study 2

The Impact of Television Commercials on Health-Related Beliefs and Behaviors of Children. C E Lewis and M. A. Lewis *Pediatrics*, Vol 53, No 3, March 1974

Purpose. To study the impact of health-related television messages on children

Population: There were two populations under study: 1) university lab school students (5th and 6th grades) presumably of middle to upper class and mostly white (group A), 2) public elementary school 5th and 6th grades classified as disadvantaged and mostly nonwhite (group B)

Sample Selection Procedure: All students were asked to participate However, only 90% of group A subjects and 54% of group B subjects actually participated .The method of selecting the two participating schools is unclear

Sample Size: School A 117 (out of 130) actually completed reports School B 91 (out of 170) actually completed reports

Outcome Measures: Written student responses to several questions concerning health messages they viewed on TV

Experimental Design: Written instructions were distributed to children and parents explaining that the "assignment" was part of a social studies program and students were to complete it without assistance The forms requested data about six messages concerning health or illness which students viewed on TV in their home The students apparently could choose which messages to report The students supplied information about time of viewing, nature of the program, what the message was, if they believed the message, and (if they reported on a commercial) whether or not they had ever tried the product and if their parents had ever used it Subjects had 1 week to complete the assignment This study was not experimental since the researchers did not assign subjects to groups and there was no "treatment" in the strict sense, the investigators were simply interested in the reactions of two naturally-occurring groups to one condition (watching health-related messages on TV)

Unit of Analysis: Commercial messages (advertised products) and individuals

Statistical Tests: Yes (X^2) and descriptive data; no tests specified

Results: Most of the messages viewed in both groups were commercials. There were differences (not tested statistically) in the types of commercials reported by the two groups A higher percent of school B students believed the messages, used the product, and parents used the product There were other specific differences with respect to these factors for various types of product There was a statistically significant association (X^2) between children's beliefs and parents' use of the products advertised the child is more likely to believe if the parent uses or vice versa The authors report that there were statistically significant positive associations between children's beliefs and their use of the products, and parent use and child use, but the analyses are not presented for these latter findings Percentages seem to indicate that parental use was more influential with respect to children's beliefs than children's use Students attending school A were classified as to the number of commercials they believed and were rated by their teachers as to their "critical thinking ability" (rated from 1-9) There was little apparent difference between the critical thinking ability ratings of "believers," and "in-betweeners," and "skeptics" (the authors report that no association between these variables was found—test unspecified) Finally, over 90% of students in both schools made inferences from their descriptions exactly as intended by the sponsors, and the viewing patterns of the two groups were similar

Success: Not applicable, since a program of treatment was not being evaluated

Criticisms: The authors point out 3 weaknesses 1) television programs were viewed by groups A and B at different points in time (10 weeks apart) In addition, what shows (and commercials) were actually watched and reported on was not controlled, it is possible that some subjects reported only certain types of commercial messages—e.g., those that they believed, 2) the data on drug taking behaviors of both children and parents are unvalidated; and 3) no attempt was made to determine what types of errors in judgment the children made (disbelieving a true message or believing a false one)

As was mentioned above, the response rates were low, especially for the disadvantaged group. In addition, the authors report that certain responses were incomplete and thus were eliminated. An effort should have been made to determine if those subjects not participating were different from those included

Published: Yes

Sponsorship: Public Health Service

Summary: This essentially descriptive study indicated that children generally believe TV health-related messages, and that associations exist between children's beliefs and parent's use, children's beliefs and their own use, and parent use and child use Its major weaknesses are high attrition rate and questionable validity of data

Study 3

Television Advertising and Children An Experimental Study. John P. Liefeld et al., working paper, U. of Guelph, Guelph, Ontario, 1974

Purpose: To investigate the effects of TV advertisements on selected physical and verbal behavior of 5-year-old male children

Population: Mother and son pairs who were from whitecollar or managerial/professional families who were at least second generation, or Anglo-Saxon Canadians

Sample Selection Procedure: 50 subjects meeting the above specifications were identified through ads in newspapers, letters to mothers of children in public school kindergarten classes, and through "personal references" Questionnaire responses allowed the investigator to eliminate those subjects who consumed the two cereals or owned the two toys to be advertised in the experiment.

Sample Size: 32 mother-son pairs met the above requirements and agreed to participate, of which 30 pairs completed the experiment.

Experimental Design: Subjects were randomly assigned to two treatments. Both groups of subjects viewed cartoons. Subjects in the first group were shown four commercials advertising each of two cereals "cereal subjects", subjects in the second group viewed four commercials for each of two toys "toy subjects" After the viewing sessions, the subjects in both groups were told that they could play with some toys Eight out of the 17 toys were the products advertised in the commercial seen by the subjects in the second group Observers recorded the physical and verbal behavior of the subjects for a 10-minute period, and their observations were checked by viewing video tape records During the toy play period, the subjects exposed to toy commercials were the experimental (E) group, while the children exposed to the breakfast cereal commercials made up the control (C) group

Following the toy play session, mothers collected their sons and proceeded to a large grocery store. Each mother entered the supermarket and began shopping "normally" No more than one mother and son pair entered the breakfast cereal aisle at one time Children's reactions to the cereals were recorded by observers dressed in clerk uniforms, and verbalizations were tape recorded (the recorder was buried in a cart full of groceries which was "unobtrusively" pushed by a woman shopper) In the shopping condition the subjects exposed to cereal commercials were the E subjects, while the subjects exposed to toy commercials acted as C subjects Two days after the experiment a sample of subjects (selection procedure unspecified) was interviewed to determine if the child had developed awareness of the experiment none of the subjects indicated such awareness

Outcome Measures: Background information provided by mother, and observations of the child's TV

watching behavior, shopping behavior, and toy playing behavior.

Statistical Tests: Yes (t tests, z tests)

Unit of Analysis: Individuals

Results: There were few differences between the groups in background, TV viewing, playing, and shopping behaviors not directly related to the experimental hypotheses—thus, the groups appeared comparable. The results demonstrate that E subjects were more likely to direct their behavior toward the advertised toys. Also, E subjects in the shopping experiment showed more "approach" behavior toward the advertised cereals than C subjects (the group differences were not dramatic, however). There was no difference between the groups in purchase influence attempts Differences in behavior between C subjects or between E subjects on two different testing days (1 week apart) were interpreted as resulting from differences in background variables—however, n's were so small for these comparisons that little confidence can be placed in them

Success: If success is defined or the E subjects approaching the advertised products more than C subjects, there was only slight indications that this occurred

Sponsorship: Unspecified.

Published: No

Criticisms: The authors are aware of the study's major weaknesses small sample sizes, using multiple statistical comparisons, failure to control for differences in initial attractiveness between the E and other products, and measuring only the short-term effects of TV advertising. The authors admirably emphasize that as a result, these findings are only tentative "These procedures were deemed justifiable given the exploratory nature of this study. They are useful for developing hypotheses for further study and for providing tentative evidence on the effects of television advertising on children."

Summary: This study suggests that TV advertising increases approach behavior of subjects toward advertised toys and cereal. Subjects were randomly assigned to treatment groups, and the investigators attempted to observe children's behavior in a natural setting (grocery store). The study's principal weaknesses are small sample size, use of multiple statistical comparisons, failure to control for the initial attractiveness of the E and other products, and measuring only short-term advertising effects.

Study 4

An Exploratory Investigation of Children's Responses to Commercial Content of Television Advertising in Relation to their Stages of Cognitive Development. Ronald S Rubin, Ph D dissertation, U of Mass , 1972

Purpose: To explore TV advertising viewing as it affects the "consumer learning process" of the child

Population: First, third, and sixth graders attending Bondsville Elementary School within the Palmer School district in Western Massachusetts

Sample Selection Procedure: Not random. The youngest subjects (and subjects not repeating a grade level) at each grade level were selected

Sample Size: 72

Experimental Design: The experiment tested for the effect of six experimental conditions The six levels were determined by three levels of cognitive development (the three grade levels) and two formats of commercial content Subjects were randomly assigned to the two formats of commercial content Subjects were randomly assigned to the two commercial content formats (12 subjects per cell, 6M, 6F) Subjects viewed two different versions of a new breakfast cereal commercial—one version was product-oriented, while the other emphasized a toy racing car premium which comes in the cereal box The commercials had not been previously viewed by subjects. The outcome measure was recall of selected elements of the commercials and understanding of the commercial message, as measured by a flexible questionnaire interview, designed for this study. Subjects were interviewed immediately following the presentation of the commercial

Outcome Measure: Flexible questionnaire interview, designed for this study

Statistical Tests: Yes (X^2)

Unit of Analysis: Individual

Results: There was a significant association between the specific elements recalled and stages of development. older children were more able to recall detailed information The recall of specific elements was independent of level of commercial content presentation The amount of elements recalled was significantly related to stages of development (older subjects recalled more information) and to the form of commercial presentation (children viewing the premium-oriented commercial recalled more elements). The action sequence recall of the subjects was significantly associated with developmental stage (trend toward sequence recall with increasing age), and with commercial content presentation (improved sequence recall with product-oriented commercial) The child's understanding of the use of the product was independent of his developmental levels (although there was a trend toward increased understanding with age), but was related to commercial content (children viewing the product-oriented commercial were more often classified in the "understanding" category) There was a relationship between awareness that they were viewing a commercial and stage of cognitive development (increased awareness with age) while children's awareness was independent of commercial content presentation Understanding of why commercials are shown (selling aspects) was related to stage of development (increased understanding with age), but this variable was not related to commercial content presentation. Similar findings existed for the child's understanding of why commercials are made. There was a relationship between the child's understanding of "what is supposed to be wanted" and stage of development (older understand better) and also with commercial content presentation (product children more often answered "cereal" while premium children mentioned the premium). The reasons subjects gave as to why they were supposed to want the product were related to developmental level and commercial content presentation (older and product presentation subjects were more aware of buying motive)

The author presents additional analyses concerning results using aided recall and breaking down the stage of development comparisons into comparing two consecutive stages of development (instead of analyses involving all three levels). These results will not be presented here

Success: If "success" is arbitrarily defined as the existence of a relationship between children's ability to recall and understand commercial messages and stages of development or form of commercial content presentation, the study was generally successful for stage of development but mixed for commercial content presentation.

Sponsorship: Unspecified

Published: No.

Criticisms: Differences (e g , use of animation) other than premium presentation existed between the two commercial versions which may have influenced children's responses.

Coding of responses into categories, such as level of recall of action sequences, appeared to depend somewhat on the coders judgment and thus may reflect an unconscious bias in the direction of the experimental expectations, especially if the ages or commercial content data were available while coding

In classifying subjects as to their understanding of the use of the product, responses about the premium were classified as reflecting lower level understanding. However, the child may view the premium as part of the product, failure to comment on the product does not necessarily indicate a lack of understanding of its use.

While the authors refer to grade levels as "stages of cognitive development," "age" would be a more accurate label for that variable.

This study is subject to the usual qualifications accompanying the use of flexible questionnaire interview techniques with children.

Summary: This study indicated that there is generally an association between children's ability to recall and understand commercial messages and their cognitive level (determined by age), and that at times commercial content presentation (product versus premium emphasis) is related to children's responses, but to a lesser extent than stage of development. Subjects were randomly assigned to types of commercial presentation. The study's principal weaknesses are differences between commercial types other than premium emphasis, possible bias due to using flexible interview techniques, and possible coding biases.

Study 5

Children Learning to Buy The Development of Consumer Information Processing Skills S. Ward, D. Wackman, and E Wartella Marketing Science Institute Report, Nov 1975

Purpose: To investigate children's acquisition of buying skills

Population: Kindergarteners, third, and sixth graders in Boston (Sommerville area) and Minneapolis-St Paul (Mounds View area). The Boston subjects were from a predominantly working class community, while the Minneapolis subjects were from middle class suburbs

Sample Selection Procedure: It is unclear if all available schools were included; the authors randomly sampled subjects from the participating schools, but the response rates were far below 100% (55% in Boston, 87% in Minneapolis)

Sample Size: 615 child-mother pairs (301 in Boston, 314 in Minneapolis) The sample was divided almost equally among grades, cities, sexes, and SES levels

Experimental Design: This study was descriptive. Children and mothers were interviewed for 1 hour each In addition, mothers completed a self-administered questionnaire. Children's responses to open-ended questions were coded as to "theoretical categories of interest "

Outcome Measures: Nonstandard interviews and parent questionnaires (see Tables, Variables).

Unit of Analysis: Individuals and individual responses (an individual may respond more than once on certain items).

Statistical Tests: Yes (X^2, correlations, multiple regression).

Results: The major independent variable in this study is the child's grade in school, sex and SES differences are also considered. There are many results reported in this book-length study, thus, they will not be reported in detail here. The following summary comments describe the general findings

1. *Children's consumer information processing.* "There are consistent age-related changes in the kinds of information children attend to, select, and use to describe and conceptualize the consumer environment. This change appears to reflect basic developmental growth in children's cognitive capabilities toward increased awareness and use of more abstract, functional kinds of information in consumer information processing."

2. *Children's money use and purchase requests:* "Children's money use skills (e g., saving) increase as children grow older"; however, the authors did not find age-related changes in nonskilled money use (e.g , frequency of *purchase requests*) except for "child relevant products."

3 *The family context of children's consumer socialization:* "The family context for consumer learning varies in rather consistent ways for different SES levels" (in particular, interaction with the child about consumption increases as the mother's social status increases, while lower status parents appear to give their children more opportunities to operate as independent consumers) . . Also, "The family context for consumer socialization differs substantially for children of different ages". . . (e.g , mothers of older children are more likely to negotiate with their child about purchases, and to provide them with greater opportunities for independence as consumer).

4 *The relationship between the family context and children's consumer behavior.* In regression analyses with all age groups combined, "age was the best predictor for nearly all child behavior variables and the family support variables did not increase explanatory power to any major extent In the subsequent analyses for the three separate grade levels, family context variables did increase our explanatory power, but the importance of specific support variables changed, between kindergarten and third grade. In particular, mother-child interaction variables were consistently important for the development of kindergartener's consumer skills. On the other hand, mothers' own

consumer behavior appeared to be consistently unimportant for older children's skill development.

5. *Additional finding:* The relationship between exposure to commercials and children's consumer learning is mixed and of rather limited importance. Also, exposure to commercials "does not appear to motivate children consistently toward increased spending or asking for products."

Success: Not applicable (no treatment).

Sponsorship: Office of Child Development, Marketing Sciences Institute, and the Educational Foundation of the American Association of Advertising Agencies.

Published: In press

Criticisms: This study is based solely on survey data, and thus is subject to the usual qualifications accompanying survey research.

Summary: This descriptive study presents several relationships between children's consumer behavior, family context, and level of cognitive development. (See above summaries in results section.)

Study 6

Advertising of Children's Premiums on Television: An Experimental Evaluation of the FTC's Proposed Guide. T. A. Shimp, R. F. Dyer, and S. F. Divita. Unpublished Manuscript, George Washington University, 1975.

Purpose: To empirically test the Federal Trade Commission's position that television advertising of premium offers to children are harmful and should be discontinued. Two specific research questions were investigated. (1) does the inclusion of a premium portion in a TV commercial distract the child's attention from merits of the principal product?, and (2) is the necessary effect of the premium offer to cause children to purchase or want to purchase the advertised product?

Population: First to sixth grade children attending a Washington, D.C. suburban parochial school which volunteered to participate in the study.

Sample Selection Procedure: The school volunteered to participate, it is unclear if all of its students actually participated.

Sample Size: 197

Experimental Design: TV commercials were constructed for a hypothetical cereal product. Four versions of a 30-second TV commercial were prepared: a control commercial which only presented information concerning the cereal and three experimental ads which included both premium and product information. The three experimental ads differed only as to the length of time devoted to premium presentation (10, 15, or 20 seconds). The premium object was a football team patch. Subjects were presented with a 5-minute cartoon, the 30-second commercial, and a 1-minute announcement about pet care.

Students within the four groups (viewing different commercial versions) were watched on age and sex and "balanced" on "cognitive ability" (memory and verbal comprehension measures). Subjects were randomly assigned to the control condition, but it is unclear whether subjects were randomly assigned to the different E treatments.

Immediately postexposure, subjects' recall of specific features of the commercial and attitudes towards the product and the premium were measured. In addition, a "simulated purchase setting" was used to test the children's cereal preference (the advertised product versus two well-known brands).

Outcome Measures:

recall — subjects completed a pencil-and-paper multiple choice test (yes, no, not sure). There were 15 "product" questions. In addition, E subjects answered an additional 11 premium oriented questions.

attitude — children selected one of five faces (ranging from an extreme smiling face to an extreme

frowning face) corresponding to their feelings about the premium and the experimental product

brand choice preference — the child selected the cereal he would most and second most prefer from three cereals (E brand and 2 others).

Unit of Analysis: Individuals

Statistical Tests: Yes

Results: The first set of findings pertain to the hypothesis that including premium offers distracts the child from relevant information about the quality of the product

A two-way ANOVA (cognitive level[1] by length of commercial time devoted to presenting information about premium) demonstrated significant main effects Higher cognitive level subjects exhibited greater recall of product information than lower cognitive level subjects. Scheffe's post hoc comparisons indicated that the "10-second premium" E group had significantly higher product recall than the other two # groups However, the performance of the C group was not significantly different from the E groups' "children exposed to a product/premium ad did not have significantly less product recall than the product version only subjects" (p. 18)

A two-way ANOVA (cognitive development x treatment) was performed on the amount of product recall (this was taken to be a measure of distraction) The treatment differences were again significant in the same fashion as in the previous analysis However, the cognitive development factor was not significant

The E groups' accuracy in recalling product information was *compared* to their premium recall accuracy using t-tests for differences between proportions These results suggest that as the length of premium presentation increases, the proportion of accurate product information recall decreases and premium recall increases Even when equal time is devoted to product and premium information, subjects were able to more accurately recall premium information (It should be noted, however, that premium recall decreased from the 15-second to the 20-second premium presentation)

The second set of findings pertain to the hypothesis that the premium presentations will influence subject reactions to the product

The E groups' responses to the "happy face" attitude measures toward the premium and the advertised product were correlated (Pearson) The correlations for both sex-groups were positive, they were quite small and nonsignificant. Thus, "it appears that greater liking of a premium object does not necessarily create greater liking of the product containing the premium" (p. 24). In addition, the C group actually displayed a *more* favorable attitude toward the advertised product than the E subjects (t-test comparing mean attitudes) even though the E subjects were very favorably disposed to the premium.

In the brand choice experiment, the majority of subjects chose the experimental product as their least preferred cereal. While there is a tendency for subjects to become more favorable to the experimental product as the proportion of time devoted to presenting the premium increases, the results (X^2) were not statistically significant Correlations between the respondents' brand choice preferences for the experimental product with their attitudes toward it were significant, as were the correlations between attitudes toward the premium object and preferences for the experimental product. Although the latter correlation is modest, it suggests that "the more a premium is liked, the more appealing is the advertised product containing the premium" (p 28)

Sponsorship: The School of Government and Business Administration, George Washington University

Published: No

Success: If "success" is arbitrarily defined as the different treatments differentially affecting subject's recall of relevant commercial information and, brand-choice preferences, the support is mixed, and appears to lean toward the "not successful" conclusion

Criticisms: The authors' decision to divide the sample according to age (less than 8 years versus 8 or older) and to claim that this division corresponds to "level of cognitive development" is questionable.

[1]The authors arbitrarily labeled children less than 8 years "preoperational" and children 8 or older "concrete-operational"

The fact that two variables are correlated (in this case age and cognitive level) is not sufficient reason to substitute one for the other It would have been more accurate to refer to the variable as "age "

It is possible that in selecting brand preferences the child responded according to his desire for the product, but that in an *actual purchase situation*, he would purchase the product one time to obtain the premium

The authors compute Pearson correlations when one of the variables is the five "face values " While these data are ordinal, they may not be interval scale and thus a nonparametric analysis may have been more appropriate In addition, the t-tests computed for differences between proportions of correct product and premium recall should have been for correlated samples, whether or not this is the case is unspecified.

Summary: The results indicate that product recall accuracy may decline as greater proportions of commercial time are devoted to presenting premiums However, it does not appear that devoting relatively short periods of time to premium presentations distracts from the child's product recall ability In addition, liking a premium object does not necessarily insure that children will desire the product containing the premium. The study was experimental, with subjects randomly assigned at least to the control condition The use of the "cognitive level" label appears inappropriate, and the use of certain statistical procedures is questionable

Study 7

Gift Decisions by Kids and Parents Andre Caron and Scott Ward, *J of Advertising*, Vol 15, No 4, Aug 1975.

Purpose: To examine certain aspects of the relative influences of mass media and interpersonal sources on children's product desires and parental decision-making regarding their children's product desires.

Population: Middle and upper class mother-child pairs in Montreal The children were third and fifth graders

Sample Selection Procedure: Random

Sample Size: 84 mother-child pairs actually produced data (initial random included 54 third and 52 fifth graders)

Experimental Design: 4 weeks before Christmas, subjects (children) were asked to write a letter to Santa, telling him what they wanted for Christmas Children were asked where they got the idea for each gift requested "Mothers were trained to obtrusively record each Christmas gift request during a 7-day period and to note their verbal response (if any) to the child " A content analysis of television commercials directed to children in these age groups was also conducted although not used in this study Following Christmas vacation, the specific gifts which children received were noted

Statistical Tests: Yes, but not all necessary tests were carried out (or perhaps, simply not reported)

Outcome Measures: Children's requests, mothers' notes of children's requests and their responses, and parent's buying behavior (not standard)

Unit of Analysis: Gift requests, gifts received, and individual subjects

Type of Analysis: Descriptive and X^2

Results: Children requested "much the same kinds of items (to Santa, parents, or both) regardless of age or social class " Children most often cited television as the source of gift ideas, followed by friends Older children were considerably more likely to cite TV and less likely to cite friends than younger children, and older children were more likely to cite catalogs (differences not tested statistically)

Gift requests—Younger children asked for more gifts than older children However, they were less likely to receive specifically requested gifts Middle class children requested more gifts than upper class children, and they requested more gifts from "Santa only " Middle class kids received more gifts, although the receipt of specifically requested gifts (conversion rate) was "very similar" in both economic groups

There were significant differences (X^2) in the types of gifts requested by children of different social classes, and there were also significant age differences Sex differences were not significant

Parents most often responded verbally in neutral terms (e.g , "we'll see") to children's gift requests The age and social class differences in parental verbal responses were not significant

There were significant age, social class, and sex differences in types of gifts received. Fifty percent of the gifts received had been explicitly requested either in the letter to Santa or to the parents. The percent of specific gift requests that were fulfilled is "somewhat higher" for upper class children. Requests made both to Santa and to parents were most likely to be fulfilled. Middle class families were more likely to yield to requests for certain types of toys, while upper class parents were more likely to yield to requests for other types of toys

Criticisms: This was not an experimental study It is possible that mothers did not accurately record all of the children's gift requests and their own responses to the requests In addition, participation in the research study may have affected parents' gift buying

Since there was a high attrition rate, there should have been an effort to determine if those not producing data were atypical

The authors state that the finding that older children more often cite TV as a source of product information, and that younger children are more likely to find out about products hrough seeing them in stores However, their data indicate that the store is as often an information source for fifth graders as for third graders

Sponsorship: Grants from Radio Canada and Marketing Sciences Institute

Published: Yes

Success: The authors did not initiate an actual program or treatment, thus it is not possible to evaluate the success of the study

Summary: This nonexperimental study demonstrated several age and social class differences with respect to sources of gift ideas, gift requests, and gifts received, although the differences were generally not dramatic

Study 8

Family and Media Influences on Adolescent Consumer Learning S Ward and D Wackman, *American Behavioral Scientist*, Vol 14, No 3 (Jan/Feb 1971) pp 415-427

Purpose: To investigate the development of consumer learning in adolescents

Population: Eighth through twelfth graders in the Prince Georges County, Maryland, school district

Sample Selection Procedure: Classrooms in 12 schools were randomly selected The 12 schools were not randomly selected (e g , black schools refused to participate)

Sample Size: 1,094

Experimental Design: This study is descriptive The subjects completed self-administered questionnaires

Outcome Measures: The four criterion variables recall of commercial content, attitudes toward TV advertising, materialistic attitudes, and self-reported effects of commercials on buying behavior These and other variables were measured by the questionnaire responses except

SES (measured by Duncan socioeconomic index) and
IQ (measured by "teach" in school)

Statistical Tests: Yes for some analyses

Unit of Analysis: Individuals

Results: Subjects were divided into two age groups for the analyses, eighth and ninth graders versus tenth eleventh, and twelfth graders Comparisons between the age groups indicate no significant differences on the four learning criteria recall, attitudes, materialism, and buying behavior There were significant (test unspecified) age differences on

almost all of the "communication" variables younger subjects watch more TV, talk more with their parents about consumption, and are more likely to watch commercials for "social utility" and "communication utility" reasons According to the authors, "Their results suggest that although younger and older adolescents may be at the same level in terms of consumer learning, the processes of learning may differ for the two age groups "

Correlations (product-moment) among the criterion variables for both younger and older adolescents are "nearly all essentially zero," indicating that "several criteria of consumer learning are quite independent of each other "

The investigators conducted "step-up" regression analyses to study differences in "consumer learning processes" across age groups Each criterion variable was predicted by three sets of independent variables (demographic, communication, and reasons for watching TV commercials) The authors discuss those independent variables which when added to the regression equation increased the proportion of variance accounted for by at least 1% Intelligence was the major predictor of TV recall for older and younger subjects Two variables—social utility reasons for viewing commercials and time spent watching TV—account for much of the younger group variance in attitudes toward TV advertising In contrast, three different variables—vicarious consumption reasons for viewing commercials, family communication about consumption, and SES—accounted for much of the variance for older subjects Social utility and vicarious consumption are major predictors of materialism for both age groups However, the amount of money the adolescent has available is a predictor for younger subjects, while IQ was a predictor for older subjects Three variables are important predictors of the effects of TV advertising on buying behavior for both age groups family communication about consumption, social utility reasons for viewing TV commercials, and exposure to magazines In addition, communicatory utility reasons for viewing commercials is also a predictor for younger subjects According to the authors, these results suggest that "simple exposure to advertising is not a sufficient condition for buying behavior other variables involving the processing of information about consumption intervent between exposure to the commercial and purchase "

Success: Not applicable

Sponsorship: National Institute of Mental Health, and the Marketing Science Institute

Published: Yes

Criticisms: Since the study was not experimental, it is not possible to make inferences about "directionality" of relationships between variables, or "causality " Thus, the authors' claims that certain independent variables which predict the criterion variables are involved in the "learning process" for the criterion variables are not justified For example, it is possible that consumer learning as indicated by attitudes toward TV advertising influences the amount of time spent watching TV, and not the reverse

This study is subject to the usual qualifications associated with obtaining data with self-administered questionnaires

Summary: This descriptive study suggests that older and younger adolescents do not differ with respect to consumer learning (as measured by the four criterion variables), but that the factors influencing the learning processes may differ across age groups Particularly interesting was the fact that several factors were better predictors of the effects of TV advertising on buying behavior than TV exposure, in fact, table 3 indicates that there is small but negative relationship between TV exposure and effects of TV advertising on buying behavior. While this finding is not discussed by the authors, it would seem to warrant further investigation

Study 9

Young Viewers Troubling Response to TV Ads T G Bever, M L Smith B Bengen, and T G Johnson *Harvard Business Review*, Nov -Dec 1975

Purpose: To examine trends in children's attitudes toward advertising during the years 5-12

Population: 5 12 year old children from middle and working class families in northern New Jersey

Sample Selection Procedure: Unspecified

Sample Size: There were 6 boys and 6 girls in each of four 2-year interval age groups (5-6, 7-8, 9-10, 11-12) for a total of 48 subjects.

Experimental Design: Subjects were interviewed about morality, fantasy, economics, and TV commercials, and the responses were tabulated

Outcome Measure: Nonstandard interviews

Statistical Tests: None reported (although the authors state in the introduction that some were performed).

Unit of Analysis: Individuals (frequencies).

Results: The authors report in an anecdotal manner the ability of different age subjects to make judgments about fantasy, morality, and economics and their reactions to TV advertising. Their reported results generally suggest that "children between 5 and 12 gradually learn to interrelate their understanding of fantasy, morality, and economics. This integration appears to coincide with an increased ability to deal with advertising. . ." Six to five year olds "largely ignored advertising as being irrelevant to their lives," 7-9 year olds "attempt with great difficulty and little success to integrate advertising into their lives," and at age 10, "they resolve the conflict temporarily through an overgeneralization that all advertising is misleading." Eleven and twelve year olds "resolve conflicts more satisfactorily thus they can identify both the good and the bad aspects of advertising." The authors conclude by stating that "the 10 year olds' anger towards misleading advertising as well as the 11 and 12 year olds' increased tolerance of social hypocrisy raise serious questions about the role of TV advertising in the socialization of children." The only data supplied by the authors are two histograms which show the average number of children in each age group who: 1) comprehend questions about morality, fantasy, and economics, and 2) are able to respond "figuratively" and/or "operationally" to advertising. Both histograms demonstrate increases with age.

Success: Not applicable (no treatment).

Published: Yes

Sponsorship: Unspecified.

Criticisms: This study informally presents children's responses which support the authors' interpretation of their data. The reader needs more information to fairly assess the authors' conclusions.

No statistical tests are reported in this study and the method of selecting subjects for participation is unspecified

While the authors cite the 7-10 year olds' "limited operations powers" as a major reason for their problems in dealing with misleading advertising, one of the histograms indicates that approximately half of 7-8 year olds were able to respond "operationally" to advertising

Summary: This descriptive study suggested that children's sophistication with respect to their attitudes toward TV advertising increases with age The data which are presented in support of many of the authors' contentions is informal

Study 10

Children's Television Viewing An Examination of Parent-Child Consensus John R. Rossiter and Thomas S Robertson, *Sociometry*, 1975

Purpose: To compare parent and child reports with respect to TV viewing and television advertising influence, and to examine response patterns in relation to children's ages and parental social class

Population: First, third, and fifth grade boys from Philadelphia area Catholic schools

Sample Selection Procedure: How schools and subjects within schools were selected are unspecified in this article However, this sample appears to be identical to the one used in Robertson and Rossiter (1974), in which all of the boys in four of the schools were included, and all the boys in one class at each grade level in the fifth school were included. The method of selecting schools and the classes in the fifth school is unspecified in the 1974 article Interviews were completed with the mothers in 87 percent of the cases, thus eliminating 13 percent of the subjects from this study

Sample Size: N=253 mother-child dyads

Experimental Design: This study was essentially correlational in nature Children's responses were obtained through personal interviews at school by trained graduate students Parents responses were obtained through telephone interviews conducted by the same interviewing team

Specific Outcome Measures: Parent and child reports with respect to two sets of variables were obtained The first set (televisions exposure, viewing supervision, co-viewing, and parent-child interaction) assessed parentally imposed television controls with closed-end questions The second set (persuasive intent recognition, liking, believability, motivation) assessed the perceived susceptibility of children to TV commercials with closed-end questions for parents, and open-end questions for children The response sets for all of the variables were trichotomized either by utilizing closed-end questions with three categories, inspecting the total response distribution for each variable and dividing the responses on this basis, or by coding open-ended responses into three categories

Statistical Tests: Yes (parametric and non-parametric)

Unit of Analysis: Individuals

Results: Only two of the television control measures and two of the commercial susceptibility measures show significant parent-child correlations (Pearson r) The TV control variables producing a significant (positive) correlation between parents and children were television exposure and parent-child interaction The commercial susceptability variables producing significant (positive) correlations were persuasive intent recognition and believability The reported r's for all of the variables are low (all under .18)

X^2 analyses for aggregate response similarity indicated that parents and children respond differently, parent and child response distributions were significantly different for all but one (believability) of the response variables Parents reported exerting more viewing supervision than the children reported experiencing In addition, parents appeared to underestimate their children's commercial susceptability

An analysis of parent and child consensus by grade level indicated that the age variable can not account for the parent-child reporting discrepancy Analysis of parent and child responses by parent s education and occupation indicated tnat parents report stronger social-class effects than their children "The added bias by social class means that the sound practices of more enlightened parents may not be as prevalent as they appear" (p 21)

Success: Not applicable

Sponsorship: Leo Burnett, Inc , Mattel, Kellogg, Nestle, Management and Behavioral Science Center of the University of Pennsylvania, and National Science Foundation

Published: Yes

Criticisms: The principal criticism of this study concerns the questionable validity of parent and child reports without observation of children's actual viewing patterns, etc Also, it is difficult to determine if parents' and children's responses are equivalent For example, when both a child and parent report that the child "likes" commercials (or report differently), it is questionable whether the concept of "likes commmercials" means the same thing for children and adults

Summary: This correlational study suggests that parents' and children's perceptions of TV control exerted by parents' and children's susceptability to commercials may differ

Study 11

Children and Commercial Persuasion An Attribution Theory Analysis, Thomas S Robertson and John R Rossiter *Journal of Consumer Research* 1, June 1974

Purpose: To examine the extent to which children are capable of understanding the purposes of television commercials and the effects of such understanding on attitudes and purchase requests

Population: First, third, and fifth grade boys in five schools within the Philadelphia area Catholic school system

Sample Selection Procedure: All of the boys in four of the schools were included (census), while in the fifth school all the boys in one class at each grade level were included. The procedure for selecting the classes included in this latter school is unspecified. In addition, the procedure for selecting the five schools is unspecified. Only two students did not participate.

Sample Size: N=289

Outcome Measures: Interviewers used open-ended questions adapted from Ward (1972) "and modified in line with our conceptual framework and questionnaire pretests"—thus, the measures were not standard.

Experimental Design: This was a descriptive study. Children were interviewed using open-ended questions by trained graduate students. Subject responses were coded blind by three judges. The few cases (less than 5 percent) where the judges did not agree were eliminated from the study. Several variables were coded in this manner—for example, whether or not a child could discriminate between programs and commercials, or could recognize the intent of commercials. Parent-child interaction was based on child reports, and peer interaction was based on the child's designation by other students in the sample as a "best friend."

Unit of Analysis: Individuals

Statistical Tests: Yes (Kendall correlation coefficients and multivariate discriminant analyses)

Results: An overview of the results suggests "increasingly sophisticated cognitions and less positive attitudinal structures" toward commercials with age (increasing grade levels).

Children's attribution of persuasive intent to commercials was significantly and positively related to age and parental education. Discriminant analysis suggested that age was the most significant factor. The child's interaction level with parents, the presence or absence of older siblings, and level of peer integration were all unrelated to the perception of persuasive intent. The only factor significantly associated with attributing assistive (helpful or informational) intent to commercials was absence of older siblings—the older or only children tend to see advertising as designed to assist.

Children who are capable of recognizing commercials as persuasive 1) can distinguish commercials from programing, 2) can recognize the existence of an external source or a commercial sponsor, 3) perceive the idea of intended audience, 4) are aware of the symbolic nature of commercials, and 5) cite instances of negative discrepancies where the product did not meet their expectations based on the commercial message (correlations between each of these 5 variables and recognition of persuasive intent were all significant, however, all are probably highly correlated with age). Stepwise discriminant weights suggested that symbolic perception was the primary determinant of persuasive intent recognition. Only two of the correlations between recognizing assistive intent and these five variables were significant: recognition of an external source or sponsor and perception of an intended audience.

The two intent variables (assistive and persuasive) were also related to attitudes (trust, liking, and consumption motivation). There are several significant results. Children holding assistive intent attributions tend to trust commercials more (positive correlations), whereas if he sees them as persuasive he tends not to like them (negative correlation). While ability to recognize either type of intent is negatively related to consumption motivation, only the correlation between persuasive intent recognition and diminished desire for advertised products is significant. Discriminant analyses indicated that persuasive intent is the dominant factor (over assistive intent) in predicting trust, liking, and consumption motivation when both types are considered in combination.

Success: Not applicable (no treatment)

Sponsorship: Leo Burnett Inc., Mattel, Kellogg, Nestle, Management and Behavioral Science Center of the University of Pennsylvania and National Science Foundation

Published: Yes

Criticisms: As the authors point out, the sample was limited to Catholic boys. Thus the results are not generalizable to other groups. The authors mention that a pilot study in a public school found that religious differences "tended to complicate interview content and measurement," which suggests that differences between various religious groups on the measured variables may well exist.

This study is subject to all the criticisms accompanying the use of open-ended questionnaire techniques—especially the question of whether the responses accurately represent reality. The use of three judges adds confidence to the scoring of the interviews, although the subjects who were eliminated due to lack of rater agreement may have been atypical, thus further limiting the generalizability of the results.

Summary: This descriptive study suggested the following relationships. Children appear to develop increasingly sophisticated cognitions about commercials, including attribution of persuasive intent, with age. Parent education was also positively related to attribution of persuasive intent, as were five cognitive variables. Children who attributed persuasive intent to commercials, tended to like them less, trust them less, and were less likely to express a desire for the products advertised. Children who attributed assistive intent tended to like and trust the commercials, but not necessarily to express a desire for the products. Recognition of persuasive intent was dominant over recognition of assistive intent in predicting liking, trust, and commercial motivation. The study's principal weakness are limited generalizability of the results and the weaknesses associated with the use of a nonstandard open-ended interview format. Since the study was nonexperimental, causal inferences are not justified.

Study 12

Children's Information Processing of Television Advertising. Scott Ward and Daniel Wackman. In P. Clarke, (Ed.), *New Models for Mass Communication Research*, Beverly Hills: Sage, pp. 119-146.

Purpose: To examine two aspects of children's information processing of TV commercials—selection of information and cognitive processing of information.

Population: Children of mothers participating in Boston area service clubs.

Sample Selection Procedure: A random sample of the service clubs was initially contacted. From each of these clubs, "approximately" equal numbers of mothers of 5-12 year olds were randomly selected. Of 108 mothers initially contacted, 90 agreed to participate. The final sample, for which all of the collected data are available, numbered 67.

Sample Size: N=67.

Outcome Measures: Children's information processing was investigated through direct interviews with the children. The interview transcripts were coded by two research assistants. Children's selection of information was examined through training mothers to code their children's attentional behavior while watching TV. Mothers completed viewing logs which indicated when the child was likely to be watching TV. Specific times for observation were sampled from these logs. Every 10th commercial sequence that the child watched was coded and included in the study.

Experimental Design: This study was completely descriptive.

Statistical Tests: Test (X^2) for information processing data, but not for selection of information data.

Unit of Analysis: Individuals and individual responses.

Results:

Information Processing of Commercials. Most 5-8 year olds exhibited a low level understanding of what a commercial is, while the majority of 9-12 year olds exhibited a medium level understanding (significant X^2 age by level of awareness).

Most 5-8 year olds exhibited low level differentiation between commercials and programs, whereas three-fourths of the 9-12 year olds exhibited high level differentiation (significant X^2). For both of these variables (commercial understanding and program-commercial differentiation) low level responses indicated a reliance on perceptual cues while higher level responses indicated a greater understanding of the meaning of the message.

The sample was coded into three "cognitive levels" low (children who gave low level responses to both of the above two questions), medium (children who gave a medium or high level response to the commercial understanding question and a high level response to the program-commercial differentiation question), and high (the performance

characterizing these subjects is unspecified) These classifications were related to the subjects' ages

Children's awareness of the purpose of commercials was shown to increase with cognitive level A similar result was demonstrated for the relationship between complexity of recall of liked and disliked commercials and cognitive level The reasons given for liking or disliking commercials differed somewhat across cognitive levels, in particular, a third of low and medium level children based their feelings toward the commercial on their response to the product advertised, compared to only 5 percent of high level children Lower cognitive level children are more likely to perceive commercials as truthful, to judge the commercial's truthfulness on a perceptual (as opposed to a reality-testing) basis, and to give trusting responses (not aware of the selling motive) when asked why commercials do or don't tell the truth

Children's Selection of Information Attention to commercials decreased from the first to later commercials in a sequence, lower cognitive level subjects showed the smallest decrease in attention from the program to the first commercial, while the high level children showed the greatest differentiation between attention to the program and the first commercial Low cognitive level children also demonstrated the most stability in their attentional behavior toward commercials appearing at the beginning or end versus the middle of a program, or at different viewing times Children's attention to commercials was related to the types of products advertised, however, the low level subjects did not appear to demonstrate greater stability across different product types than the higher level subjects

Success: Not applicable

Sponsorship: National Institute of Mental Health, The Marketing Science Institute, and the American Association of Advertising Agencies

Published: Yes

Criticisms: A large proportion of the subjects initially contacted were not included in the final analysis An attempt should have been made to determine if these subjects were atypical

It is unclear if the coders of the information processing interviews were aware of the subjects' ages If this were the case, the ratings of subject responses may have been unintentionally biased Also, one may question the accuracy and comparability of the mothers' codings of their children's viewing patterns (e g , mothers of children of different levels may have differed in their coding behaviors)

The authors neglect to specify the criteria for a "high cognitive level" classification

Summary: This descriptive study indicated that "children's information selection and processing is influenced by their cognitive development" (p 143) Lower cognitive level children tended to focus on perceptual features of commercials, while higher level subjects focused on more abstract features In addition, lower level children were more likely to trust commercials than higher level children The attentional patterns of the lower level children were stable across different conditions, while the higher level subjects showed more differentiation in their attentional behavior The study's principal weakness is the possibility of bias in the coding of subject responses

Study 13

Children's Reactions to Television Advertising An Experimental Approach M Goldberg and G Gorn, *Journal of Consumer Research*, Vol 1, Sept 1974

Purpose: To determine the extent to which TV commercials motivate children to try to obtain advertised products

Population: 8 to 10 year old boys associated with a recreation department in an English speaking upper middle class suburb of Montreal

Sample Selection Procedure: Unspecified

Sample Size: N=133

Experimental Design: Subjects were introduced to two new toys (not yet on the market). Baseline measures of attitudes toward each of the two toys were obtained on a 5 point bipolar scale (apparently not standard). On another 5 point bipolar scale with the first toy (CC) representing one pole and the other toy (HW) representing the other, the subjects specified which of the two toys he would rather get.

Expectancy was experimentally manipulated by the experimenter telling the children that he had only 1 (low expectancy), 8 (moderate expectancy), or 14 (high expectancy) CC's for the 15 boys in each group. Subjects were told that to win the toy they would have to solve a puzzle. If they were the first, among the first 8, or the first 14 boys (depending on level of expectancy), they would win the toy. If they quit before the winners in their group solved the puzzle they would receive HW's, but if they were still working after the winners solved the puzzle they would win nothing. HW was chosen as the alternative prize because pilot tests (unreported) indicated that the children had a slight preference for the CC. Children were asked for their perceived chances of winning on a 5 point scale. Groups of children were subsequently shown a program with either 0, 1, or 3 CC commercials inserted. After the program children rated their attitudes toward the program on a 5-point scale. The preprogram measures of the desirability of the toys and the perceived probability of winning CC were readministered. Children were then reminded of the number of toys available and the perceived probability of winning was measured a third time. Children then worked in separate cubicles on a difficult experimental puzzle. When a child decided to stop he left the cubicle, and the other children were unaware of his departure. E noted the time each child worked on the puzzle. Finally, subjects rated the task's interest and difficulty on two 5-point scales, and were given a set of HW for participating.

In summary, the design was a 3x3 factorial (3 levels of commercial exposure and 3 levels of expectancy) with approximately 15 subjects/cell. Subjects were randomly assigned to cells. The dependent measures were time spent on the task and the attitudinal data.

Unit of Analysis: Individuals

Statistical Tests: Yes, ANOVA, ANCOVA, and post hoc comparisons.

Results: The manipulation of expectancy was successful in that the posttest results revealed a significant main effect. A Neuman-Kauls test revealed that the perceived chances of winning the CC were higher in the high expectancy group than in the other two groups, however, the moderate and low groups were almost identical.

Prior to exposure to the commercials CC and HW were seen as approximately equally attractive. The program was viewed as fairly interesting. The puzzle was perceived as very hard and fairly interesting. There were no significant differences among treatment levels on any of these measures.

Two-way ANOVA's were performed on attitudinal and behavioral data to determine the effects of expectancy and commercial exposure. Analyses with time spent on the puzzle before quitting (persistance measure) were meaningful for those subjects who could not solve the task (n=122). Thus, the subjects solving the task (n=11) were excluded from all analysis. The authors performed a logarithmic transformation to normalize the time at task data. ANCOVA's on the attitudinal data were performed, covarying on preprogram scores. The covariance analysis was essential since there were substantial preprogram differences on the attitudinal measures (despite random assignment). The two attitudinal measures were attitude toward the CC and comparative attitude (CC vs. HW).

There was a significant main effect of expectancy on both attitude measure. In both cases, the only significant difference occurred between subjects in the high and moderate expectancy groups (the attitudes for low expectancy groups fell in between). Thus, high expectancy of receiving the toy enhanced its value in comparison to moderate expectancy. There was also a significant expectancy effect on the amount of time spent working on the puzzle. High expectancy subjects worked significantly longer than those in the low expectancy group (with moderate expectancy in the middle). Thus, persistance behavior was related to expectancy.

There was a significant commercial exposure effect on the comparative attitude measure but not on the attitude toward the CC measure. The increases from 0 to both 1 and 3 exposures on the comparative measure were significant, but there was no difference between the means in the 1 and 3 exposure groups. The number of commercials also significantly affected time worked at the tasks to win

the CC. Only the difference between 0 and 1 exposures was significant, with 1 commercial resulting in increased time worked at the task. (The difference between the 0 and 3 conditions was "just" below the 5 percent level of significance.")

There were no significant interaction effects (commercial exposure x expectancy). Thus, children with low expectancy of obtaining a toy are still affected by commercials. Alternatively, the commercials did not create enough desire for a toy to eliminate the differential affects of expectancy.

Success: Although some subhypotheses were not supported (e.g., the authors predicted an interaction effect, and the predicted positive relationship between expectancy and attitude toward the product was only partially supported), the results generally supported the hypotheses that expectancy and commercial exposure affect attitudes and behavior in the predicted directions. Thus, the study should be considered successful.

Sponsorship: Canada Council Grant.

Published: Yes.

Criticisms: The experimental manipulation of expectancy was only partially successful, while the high expectancy group differed significantly from the moderate and low expectancy groups, these latter two groups had similar perceived chances of winning (expectancy). Thus, it may have been more appropriate to combine these two groups for the purposes of analysis, since differences between these two groups on the dependent variables would appear not to be caused by expectancy differences.

The exclusion of the 11 subjects who actually solved the puzzle may indicate that the brightest students were eliminated, thus limiting the generalization of the findings. In addition, excluding these subjects may have contributed to preprogram attitude differences between groups despite random assignment.

Summary: This study was well executed. Subjects were randomly assigned to treatment combinations, and the data analysis appeared careful and appropriate. The results suggest that commercial exposure to a toy and expectancy of receiving the toy influence the child's attitude toward the toy (in comparison to another toy) and his behavior in attempting to obtain it.

Study 14

Effects of Television Advertising on Children: First Year Experimental Evidence, Charles Atkin, Report #1, TV Advertising and Children Project, Final Report, Department of Communications, Michigan State University, June 1975.

Purpose: To examine the impact of various advertising practices on the knowledge, attitudes, and behavior of young children.

Population: Elementary and preschool children in the Lansing area.

Sample Selection Procedure: Five elementary schools and two preschools "were carefully selected to provide a substantial proportion of black students." Thus, they were not randomly selected. "Most students in each school participated (parent's permission required). While the sample included subjects of all SES levels, it was "purposively skewed to overrepresent children from less advantaged backgrounds."

Sample Size: N = 500.

Experimental Design: Subjects were exposed to one of the eight 20-minute stimulus tapes containing entertainment material, advertising, and news. There were nine experimental hypotheses being tested. The basic design for investigating each of the hypotheses involved comparing half of the total subjects exposed to one version of the stimulus and the other half viewing an alternate version (while there were eight stimulus tapes, there were not eight different E treatments — rather, there were nine hypotheses for which there were two conditions).

The stimulus tapes were played to groups of four children at a time. It is unclear how these groups were formed. One of the eight stimulus tapes was randomly selected for showing to each group. One-half of the subjects responded to postviewing interviews, while the other half underwent a product selecting procedure. In addition, one-half of all subjects were monitored for responses while viewing.

The method for assigning subjects to these conditions is unspecified

Outcome Measures: Coders rated the attentional and affective responses of half of the subjects during the tapes Attention was rated on a 5-point scale (amount of eye contact) Degr e of enjoyment and irritation were rated on 3-step scales (high, moderate, low) Verbalizations were coded according to topic and valence Change in interest was rated on a 3-point scale (increase, no change, decrease)

After viewing the tapes, half of the subjects responded to nonstandard interviews The other half participated in a product selection and play condition Behavioral and verbal preferences, expectations, and aggressive behaviors were re ded by an assistant

Statistical Tests: Yes (t-tests, X^2)

Results: This study of the impact of various advertising practices on the knowledge, attitudes, and behavior of young children reports a large number of findings Some are selected here

(1) PREMIUM OFFER STRATEGY—Children more often desired a breakfast food when the commercial featured a premium toy than when a premium was not mentioned however, they were not more likely to anticipate asking their mother to buy it for them

(2) PROGRAM CHARACTERS APPEARING IN COMMERCIALS—Those viewing a Flintstones cereal ad more often desired the product when the ad was shown in the context of a Flintstones cartoon than in a Bugs Bunny cartoon, this did not seem to be due to confusing the commercial with the content of the program, but rather a heightened identification with the program characters in the commercial

(3) RATIONAL MESSAGE STRATEGY—A rational vitan in-oriented cereal ad was readily learned and equally successful in terms of recall and desire, compared to a standard emotional presentation of the cereal

(4) LEARNING FROM PUBLIC SERVICE ANNOUNCEMENTS—Those who viewed an anti-l ng PSA less often exhibited littering behavior afterwards, compared to those who did not see this ad

(5) MEDICINE ADVERTISING—Children who viewed a Dristan commercial more often indicated that they would take medicine for a cold, thought pills were more effective, and perceived higher levels of illness in society, compared to those who did not see the ad

(6) DISCLAIMERS—A toy commercial with an audio as well as a video superimposed disclaimer of nonincluded batteries produced greater awareness of this qualification but created less product desire than a video-only disclaimer

(7) CLUSTERED VS DISPERSED STRUCTURE OF PRESENTATION—Slightly greater levels of commercial attention, enjoyment, learning, and desire were obtained when commercials were bunched together rather than conventionally dispersed

Success: It is difficult to determine if the treatments were generally successful, since a large number of hypotheses were tested In general, attention to and learning from commercials were strongly related to the age of the subjects, the effects of the various treatments on learning and other behaviors is *mixed*, and depends strongly on the specific aspect of the program which is being considered

Criticisms: The method of assigning subjects to the various measurement conditions is unclear In addition, while stimulus tapes were randomly assigned to groups of four subjects, the method of assigning subjects to groups is unclear

Ratings of subject responses (e g , degree of enjoyment) were based on observer judgments It is obvious that these ratings may not accurately represent the subject's underlying condition In addition, coder expectations may have unconsciously biased the results

This study focused on short-term effects of TV advertising It would be informative to conduct longer term studies to supplement these findings

The authors tested the significance of their findings with multiple t tests, thus increasing the probability of a difference appearing due to chance

Published: No

Sponsorship: Office of Child Development

Summary: This study tested several hypotheses concerning the effects of TV commercials on children's learning and other behaviors Learning and attention were strongly related to the age of the subjects, while the effects of the various treatment manipulations on subject behaviors were mixed and depended on the specific hypothesis being considered. The study's major weaknesses are failure to specify how subjects were assigned to groups and measurement conditons, and the questionable validity of coder's ratings of subject behaviors

Study 15

Effects of Television Advertising on Children — Second Year Experimental Evidence Charles Atkin, Report #2, TV Advertising and Children Project, June 1975

Purpose: To test children's intentional and incidental learning from television commercials

Population: Elementary school students (grades 2-5) in Lansing and East Lansing, Michigan

Sample Selection Procedure: While the author states that the schools represented "varying socio-economic neighborhoods," how these schools were selected is unspecified "Almost every student" in the selected grades in each school participated in the experiment (with parents' permission)

Sample Size: N=400

Experimental Design: Subjects viewed one of four versions of a 15-minute videotape containing children's news, entertainment, and advertising content The content of the commercials was manipulated across the four experimental tapes, to allow the testing of nine experimental questions The students from each classroom were randomly assigned to two groups One of the four stimulus tapes was randomly selected for showing to each group After viewing the tape, subjects responded to a 10-page multiple choice questionnaire

Outcome Measure: Ten page multiple-choice questionnaire (not standard)

Statistical Tests: Yes (X^2 and correlations)

Unit of Analysis: Individual

Results: Many findings are reported, some are selected here

(1) OCCUPATIONAL SEX ROLES—The occupational role portrayed by a woman in an ordinary eyeglass advertisement was varied one group saw her dressed as a court judge, another as a computer programer, a third group saw her as a technician repairing TV sets, and the control group saw no eyeglass commercial *Ss* who were exposed to a particular occupational model were more likely to select that occupation as appropriate for women.

(2) RECREATIONAL SEX ROLES—The sex of children shown playing with a traditionally male-oriented racing car set was varied one group saw two girls playing with the racing cars and the other group saw two boys. Not all *Ss* perceived the sex of the models, but those *Ss* who did perceive the actors to be girls were far more likely to feel that girls should appropriately play with racing cars and were slightly more desirous of playing with the toy themselves

(3) LEARNING FROM PUBLIC SERVICE ANNOUNCEMENTS—One group viewed a half-minute cartoon message emphasizing that sugar consumption produces cavities and may eventually cause teeth to fall out, the control group did not see this PSA Exposed subjects tended to believe that sugar causes cavities and makes teeth fall out, were more worried about getting cavities, and more often felt that sugar was not good for them Viewers were slightly more likely to say that they would eat less sugar in the future

(4) MEDICINE USAGE—The verbal script of a standard headache remedy commercial was altered to emphasize moderation in usage Half heard conventional claims of speedy headache relief, while the others also heard the qualification that the medicine should be taken only "when you really need it" and that one shouldn't take "too many" pills for a headache. The qualified ad was just as effective in terms of brand awareness and acceptance of relief claims There was a slight tendency for *Ss* hearing the qualified message to say that people shouldn t take pills for mild headaches and that they would personally take less pills for headache relief

(5) HERO-FIGURE ENDORSEMENT—In a commercial promoting a cookie product, the spokesman was dressed either in ordinary street clothes or in an astronaut uniform. The group viewing the ordinary spokesman were slightly more likely to want to eat the cookies than *Ss* exposed to the astronaut-hero figure, there was no difference in the intention to ask parents to purchase the product.

(6) COMPARATIVE MESSAGE STRATEGY—One version of a chocolate bar commercial employed a conventional "one-sided" strategy of describing only positive attributes of the product, while a "two-sided" version included comparisons with a competing brand along dimensions of size and nutrition. *Ss* in the two-sided condition were somewhat more likely to learn about the two attributes of the advertised product. Although many two-sided subjects mistakenly thought that they had seen an ad sponsored by the competing brand, they were no more likely to prefer the competitor. *Ss* receiving the one-sided message liked each candy brand about as well as the two-sided *Ss*.

(7) MESSAGE REPETITION—One group saw a blemish-cream commercial once and half saw it presented twice several minutes apart on the tape. Those in the double exposure condition were more likely to remember the brand name of the product and to worry about blemishes than those exposed once, but it did not express any greater liking for the product, intention to buy it, or belief in effectiveness.

Success: Depends upon specific hypothesis being considered.

Sponsorship: Office of Child Development

Published: No

Criticisms: As always, the validity of results obtained with nonstandard multiple-choice questionnaires is open to question. For this reason, the inclusion of behavioral indices would seem advisable.

The authors do not state the exact number of subjects at each age level viewing the different tape versions.

This study focused only on short-term effects. Also, the experimental setting (lack of diversions in experimental room) may have artifically heightened attention to commercials.

Summary: This study used a partially randomized design in investigating nine experimental hypotheses concerning the effects of TV advertising on children's sex-role attitudes and personal health practices, and the persuasive impact of certain advertising message strategies and source attributes. The results differ according to the specific hypothesis under consideration. The study's major weaknesses are questionable validity of the outcome measure, and the artificiality of the test situation.

Study 16

Effects of Television Advertising on Children — Survey of Pre-Adolescent's Responses to Television Commercials. Charles Atkin. Report #6 TV Advertising and Children Project, Department of Communications, Michigan State University, July 1975.

Purpose: To describe patterns of advertising exposure and evaluation in the naturalistic setting and to examine the role of commercials in late childhood socialization.

Population: Fourth through seventh graders from Michigan schools.

Sample Selection Procedure: While the author states that subjects came from "a number of schools in urban, suburban, and smalltown areas of Michigan," the method used to select these schools is unspecified. It is unclear, if all available subjects within the chosen schools participated in the study.

Sample Size: N=775

Experimental Design: This study was purely descriptive. An "omnibus survey instrument" containing multiple choice and open-ended questions designed to measure children's responses to TV advertising was administered to all subjects. In addition, each questionnaire contained a supplementary set of items. 256 fifth, sixth, and seventh grade students responded to a supplement containing questions about medicine, while 506 children (fourth-seventh grades) received a food and nutrition supplement. It is unclear how the supplements were

assigned to subject (but assignment apparently was not random)

Outcome Measure: Nonstandard questionnaire

Statistical Tests: Yes (correlation coefficients).

Unit of Analysis: Individual

Results: Selected findings are:

(1) ADVERTISING EXPOSURE—Preadolescence is a period of heavy television consumption, with respondents reporting more than 2 hours of prime time viewing each evening. They still view many Saturday morning programs (particularly fourth and fifth graders) and also watch teen-oriented music programs. These viewing patterns indicate that youngsters encounter a large number of commercials for a wide variety of product types. Across 26 specific ads, children report being moderately attentive when commercials appear.

(2) EVALUATION OF ADVERTISING—Most children report being irritated by commercial interruptions, the sample is divided on the question of banning Saturday morning commercials, with younger children and those who are highly irritated tending to favor removal. Preadolescents are generally skeptical of the trustworthiness of TV ads, less than one-fourth think that commercials always tell the truth. Children who disbelieve commercials tend to disbelieve authority figures such as adults and salesmen, but attention and liking of ads are not related to either form of distrust.

(3) ADVERTISING AND HYGIENE—There are substantial positive associations between exposure to deodorant/mouthwash/acne cream commercials and worry about personal hygiene, using hygiene products, perceiving the importance and societal usage of these products, and believing that the products work effectively.

(4) MEDICINE ADVERTISING—Exposure to ads for headache/stomach ache/sleeplessness remedies is moderately related to children's perceptions that people often become ill and rely on medicine, and to their personal concern about getting sick. Personal usage and approval of medicine is only weakly affected by advertising. There is no evidence that ads contribute to positive attitudes toward illicit drugs.

(5) CEREAL ADVERTISING—Children who watch the most cereal ads on Saturday television are much more likely to ask parents to buy cereals and to eat advertised brands, those from families with no snack rules are most strongly affected. Arguing with parents and becoming angry when requests are denied are mediated by increased request frequency. Advertising does not significantly affect beliefs of the value of sugar or the incidence of tooth cavities.

(6) CANDY ADVERTISING—Advertising has a modest impact on children's eating of advertised candy brands and quantity of candy bars consumed. There are negligible effects on beliefs about sugar and development of cavities.

(7) ADVERTISING AND NUTRITION—Children most exposed to informational cereal messages stressing nutritional breakfast habits tend to recognize the importance of eating a good breakfast and to give higher nutritional ratings for the cereal, toast, and orange juice foods that are emphasized in these ads.

Success: Not applicable, since there was no treatment.

Sponsorship: Office of Child Development

Published: No

Criticisms: The study's major weakness is its total reliance on survey research, the degree to which questionnaire responses represent the subjects' true behavior is open to question. The author feels that "the field setting allows more confident generalization of the findings to the real world in which the children live." This study underscores the recurrent problem of choosing between controlled (and possibly artificial) experimental conditions and surveys.

The author includes specific commercials and TV shows in their indices. It is unclear how they were chosen, and it may be that these specific choices influenced the outcome. (e.g., in assessing reported attention to medicine commercials, a subject may attend more closely to those included in the questionnaire than to medicine commercials in general). In addition, in comparing some indices the author used a "multiplicative technique" which combined degree of attention and frequency of viewing. It is unclear why these relationships are multiplicative.

Study 17

TV Drug Advertising and Proprietary and Illicit Drug Use Among Teenage Boys J R. Milavsky, B Pekowsky, and H Stipp. *Public Opinion Quarterly*, Winter 1975-76

Purpose: To empirically test the charge that drug advertising may be related to use of proprietary and illicit drugs

Population: 7th, 8th and 9th grade boys in low and middle SES midwestern schools The precise location of these schools is unspecified

Sample Selection Procedure: Schools were apparently selected in an attempt to obtain a sample "balanced with respect to SES and grade and, among the low-SES boys, balanced by race." Target boys were randomly selected from enrollment lists. The target boys were then asked for names of up to eight neighborhood friends, who were also recruited Additional subjects (friends and subjects participating in a separate study) were recruited in later phases of the study

Sample Size: 822 boys were present for at least one phase (wave) of the study

Experimental Design: The subjects were interviewed with questionnaires five separate times over a period of 3½ years (May 1970-Dec. 1973), while their parents were interviewed twice The subject questionnaires tapped the subjects' proprietary and illicit drug use and drug advertising exposure (note the authors followed an elaborate procedure for computing exposure to drug commercials from subjects' reports of TV exposure The exposure measure tapped the amount of drug advertising the subject could have watched). The authors made special efforts to insure that their measures were valid, and they randomly selected TV shows for inclusion in the initial (Wave I) questionnaire The questionnaires differed across the different measurement times

Outcome Measure: Unstandard questionnaires

Unit of Analysis: Individuals

Statistical Tests: Yes (nonparametric Tau — since data is only ordinal scale)

Results: Drug advertising exposure and proprietary drug use:

There is a small but significant relationship subjects with high exposure use more proprietary drugs than those with lower exposure

Drug advertising exposure and illicit drug use: A *negative* relationship was found between exposure and drug use. the higher the TV advertising exposure, the less are illicit drugs used. This relationship remained negative even when the amount of total TV exposure was partialed out, and was negative or not significant when low, medium, and high viewers were considered separately The authors "searched" for subgroups in which the relationship between drug advertising exposure and illicit drug use was positive by controlling for many variables, such as age, race, IQ, SES, etc. No subgroups were found in which the relationship was positive. The negative relationship appeared in part to be a result to the fact that eventual users of illicit drugs watch less TV (and experience less exposure to drug advertising) before experimentation with drugs begins. These results suggest that "television is not a factor leading directly to illicit drug use "

Indirect links between drug advertising exposure and illicit drug use: Subjects' use of proprietary drugs was not related to use of illicit drugs Subjects' *readiness* to take proprietary drugs was significantly related to their use of illicit drugs; however, there was no relationship between exposure to drug advertising and the subjects' *readiness* to take proprietary drugs—thus, TV was not indirectly related to use of illicit drugs

Published: Yes

Success: Not applicable

Sponsorship: National Broadcasting Company

Criticisms: There were differences in the descriptions of some drugs and the number of drugs listed between the last administered and the earlier questionnaires As the authors point out, therefore, a certain amount of caution should be exercised in interpreting changes over time

A fair percent of subjects responded to questions about nonexistent "dummy" shows, or reported their drug use inconsistently While the authors took precautions to insure that these errors did not bias the results, this fact is indicative of the questionable validity of survey research

It is difficult to determine why the N's for the different analyses vary

Summary: This correlational study suggests that exposure to TV drug advertising does not directly or indirectly lead teenage boys to take illicit drugs "On the contrary, the data indicate that it is the lighter viewer of drug advertising on TV who is more likely to use illicit drugs " Drug advertising exposure was positively related to proprietary drug use Since the study was not experimental, causal inferences are unwarranted.

Study 18

An Exploratory Analysis of the Effect of Television Advertising on Children Howard, Hulbert, and Lehmann (unpublished)

Purpose: To determine how children between the ages of 2 and 6 responded to television advertising

Population: "Relatively well-to-do" 2 to 6 year old children from rural New Hampshire and urban New Jersey.

Sample Selection Procedure: Unspecified

Sample Size: N=96

Outcome Measure: Nonstandard interview

Experimental Design: Children and mothers were interviewed

Statistical Tests: No (frequencies are presented)

Results: The authors collected data on a large number of questions — thus, interesting findings will be highlighted

1 Children almost never mentioned advertising as the important reason for buying toys or cereals

2 TV seems to be the most important source of new-product information for cereals and toys

3 Most mothers feel that children distinguish between commercials and programs, and most claim to discuss TV-advertised products with their children

4 Most mothers feel that TV causes their children to ask them to buy things

5 Mothers had mixed opinions as to their feelings about the value of watching TV ads for their children

Unit of Analysis: Individuals, or individual responses, frequencies

Criticisms: This study was entirely descriptive The authors make several statements (not listed above) which are not based on data presented

There is a ' y high incidence of "no response," which weakens iese findings

The findings of this study would be interpreted cautiously e g , the fact that children did not mention advertising as an important reason for buying products does not indicate that it has no effect on purchase requests Advertising may influence the other reasons listed (e g , taste, special feature)

Published: No

Success: Not applicable

Sponsorship: Faculty Research Fund of the Graduate School of Business, Columbia University

Summary: This purely descriptive study presents several findings concerning TV advertising, children, and mothers (See results section above)

Study 19

Short-Run Advertising Effects on Children A Field Study" Thomas S Robertson and John R Rossiter *Journal of Marketing Research*, Vol XIII (Feb 1976), pp 68-70

Purpose: To investigate the effects of TV advertising on children's toy and game choices in a "naturalistic setting"

Population: First, third, and fifth grade boys in Philadelphia area schools

Sample Selection Procedure: The procedure for selecting schools and subjects within schools is unspecified The study was conducted in five "diverse" Philadelphia area schools "to provide a wide range of socioeconomic backgrounds", thus, it appears likely that the schools were not randomly selected

Sample Size: N=289

Experimental Design: A two-wave survey was administered in which children were asked to nominate their five most strongly preferred Christmas present choices at two time periods 5 weeks before Christmas and 1 week before Christmas Children were also asked how often they had actually requested each item from their parents, and where they had seen or heard about each item mentioned

Children's item choices were assigned to one of four categories. (1) toys and games, (2) educatio and craft items, (3) leisure and personal items, and (4) sports equipment The authors then traced brand name items in TV advertising logs. this effort revealed that only the toy and game group received "substantial" T V advertising support, while items in the other three groups were advertised only "occasionally" On this basis, the authors conclude that "any change in the proportion of toy and game requests (versus requests for items in the other categories) from the first wave, which preceded the peak of TV advertising for toys and games, to the second wave, which followed the peak of TV advertising for toys and games, could be taken as prima facie evidence for TV advertising effects"

Unit of Analysis: Individual

Statistical Tests: Yes (ANOVA, Kendall's tau)

Outcome Measure: Survey (not standard)

Results: Overall toy and game preferences increased slightly from 45 percent to 48 percent during the 4-week measurement period The prepost choice changes were statistically significant (ANOVA) The authors state that the increase in toy and game choices may be conservative since the advertising campaign had already begun by the time of the first measurement In addition, the mean number of toy and game category requests to parents increased from 2 2 to 2 7 during the measurement period The correlation between TV as an information source and children's toy and game choices was 24 (p 001), larger than for several other sources

Sponsorship: National Science Foundation, Leo Burnett, Inc , Mattel, Kellogg, Nestle

Published: Yes

Success: Not applicable

Criticisms: The authors feel that this study demonstrates the short-term effects of TV advertising on children's toy and game choices and purchase requests However, the study suffers from several weaknesses First, the two different measurement times were supposed to reflect prepeak and postpeak TV toy [illegible] advertising efforts. However, no information on the *differences* in percentage of commercials dealing with toys and games at the times of measurement and between measurements is provided Second, there are many other factors besides TV advertising which may have influenced the increase in toy and game choices and purchase requests (e g , increased conversation about Christmas by peers and family, increased awareness that requests for toys were likely to be received favorably, storefront displays, etc). The authors' assumption that "the major difference in product information input over the survey period was television advertising, which was concentrated on the toy and game category," is not supported with data

The increase in toy and game requests was modest and not tested statistically

Summary: This study suggests that pre-Christmas TV advertising increased children's toy and game choices and purchase requests However, these findings must be viewed with caution

Study 20

Children's TV Commercials Testing the Defenses John R Rossiter and Thomas S Robertson *Journal of Communication*, Vol 24, Autumn 1974

Purpose: To investigate "persuasion processes" in children's susceptibility to television advertising

Population: Primary school boys (1st, 3d, th grade) from Philadelphia Catholic schools (same as other articles by these authors)

Sample Selection Procedure: The area was selected in an effort to provide a "broad social class profile." Selection of schools and subjects within schools is unspecified

Sample Size: N=289

Outcome Measure: Open-ended interviews (not standard) were used to measure each child's level of understanding of commercials (cognition) and his associated belief, affect, and motivational disposition with respect to them (attitude)

Commercial-instigated choice behavior was measured as follows children listed Christmas present selection in early November and again in December. The measure was the proportion of toy and game requests (for which there was concentrated TV advertising) in relation to total requests (See Study 19)

Experimental Design: This study is part of the 1976 study (Study 19) which investigated the effects of pre-Christmas toy and game advertising This study focuses on cognitive and attitudinal defenses with respect to commercials Cognitive defenses were indicated by the child's level of understanding of commercials, while attitudinal defenses were indicated by his beliefs, affect, and motivational disposition toward commercials Children were interviewed, and the interview protocols were scored anonymously with respect to the child's school and grade level by three independent coders into response dimensions developed a priori Cognitive and attitudinal defenses were related to a number of factors

Statistical Tests: Yes (Kendall's tau)

Unit of Analysis: Individual

Results: Predictors of children's cognitive and attitudinal defenses to television advertising Maturational development (age and grade) is the most significant determinant of children's cognitive and attitudinal defenses to television advertising (maturation results in a greater understanding of and a more defensive attitude toward commercials). The other correlations which follow were computed with age and grade partialled out

TV exposure was unrelated to cognitive defense level, but was significantly related to the child's attitude toward commercials (heavy viewers are more favorably disposed toward TV advertising)

Children of better educated parents exhibited stronger cognitive and attitudinal defenses to commercials, although parent-child interaction was not a significant variable Children with no older siblings were found to be more cognitively sophisticated Peers do not play a significant role in the child's acquisition of defenses to advertising

Cognitive and attitudinal defense effectiveness over the peak toy and game television advertising period (the correlations between children's cognitive and attitudinal defenses and their preference levels for television advertised toys and games, both before and after the peak of the toy and game TV ad period, were computed separately by grade level)

Children's cognitive and attitudinal defenses are strongest at the beginning of the peak ad period, but are "neutralized" at its conclusion (children with strong defenses to commercials selected fewer TV promoted toys and games on the premeasure than children with weaker defenses, however, on the postmeasure, defenses are generally ineffective predictors of preference). This is a result of increased TV item preference among children with the initially strongest defenses The cognitive defenses of the 5th graders appeared to be most resistant to advertising

There is a shift in importance from attitudinal defense to cognitive defense with increasing grade level (cognitive defenses are minimally important for 1st graders, as are attitudinal defenses for 5th graders)

Success: Not applicable

Sponsorship: Leo Burnett, Inc., Mattel, Kellogg, Nestle, National Science Foundation.

Published: Yes

Criticisms: The authors attribute effects to the concentrated toy and game TV advertising during the pre-Christmas weeks However, the authors do not provide information about the level of such advertising at the two measurement times In addition, there were no controls to insure that TV advertising, and not some other factor, was responsible for the "neutralization" of cognitive and attitudinal defenses with respect to TV advertised toys and games

Summary: This correlational study suggests that maturation is the most significant determinant of children's defenses to TV commercials, TV exposure was significantly related to attitudinal defenses to commercials There is some evidence that defenses were effective at the prepeak measurement time, but were less effective at postpeak, the cognitive defenses of 5th graders were most resistant to the effects of concentrated advertising. There was a shift from attitudinal to cognitive defenses with age The study lacks sufficient controls to confidently attribute deterioration of defenses to concentrated TV advertising

Study 21

Validation of Mother-Child Purchase Influence Frequency Reports by the Multitrait-Multimethod Matrix. Ronald Faber and Scott Ward. Technical Report, Marketing Science Institute, April 1975.

Purpose: To assess the validity of data from mothers and children concerning the frequency of children's attempts at purchase influence

Population: Mother and child (kindergarten, 1st, and 3d graders) pairs in the Boston and Minneapolis metropolitan areas

Sample Selection Procedure: Unspecified

Sample Size: N=615

Outcome Measures: Children indicated on a 4-point scale how often they attempt to influence their mothers to buy each of 12 different products Mothers responded to the same scale as to their perceptions of their children's purchase requests

Experimental Design: Interviews were conducted with each moth and child separately

Results: The authors use Campbell and Fisher's (1959) multitrait-multimethod matrix approach to test the convergent and discriminant validity of mothers' and children's ratings of children's purchase requests The data support the existence of both types of validity

When the data was analyzed by children's age groups, the most highly correlated reports of purchase influence attempts appeared to be those of kindergarteners and their mothers

Convergent validity existed for all three age groups (mother's and children's reports correlate highly) However, data for the younger children indicated considerably less discriminant validity than the data for older children

Summary: This article simply tests the validity of child and mother reports concerning children's purchase influence attempts. The results indicate convergent and discriminant validity, although discriminant validity is weaker for young children

Appendix B

RESEARCH RESOURCE ROSTER ON TELEVISION ADVERTISING AND CHILDREN

As a segment of the comprehensive project to study the effects of TV advertising to children, the National Research Roster was compiled with four major objectives in mind

(1) to identify professionals who have qualifications or have demonstrated interest in conducting research studies in the area of child development and television advertising

(2) to sample the breadth and depth of the national research resources currently available for relevant studies in terms of special populations, facilities, research modes, and professional orientation of investigators

(3) to provide investigators a means for making their interest and availability known to prospective research-sponsoring agencies

(4) to solicit investigator's views on important areas for new research

A comprehensive effort was made to disseminate the information widely regarding the roster Announcements of the organization of the roster were sent to 156 professional journals, newsletters, and other publications in numerous disciplines and occupational specialties associated with child development, mass communications, marketing and advertising, education, child care, and social policy studies Also, an extensive literature review was conducted to canvass names of investigators and commentators active in this field Roster questionnaires were sent to more than 600 prospective candidates

At the time the main roster closed, 348 completed questionnaires had been received from members of numerous professional specialties A statistical profile of the respondents and their research specialties follows The complete roster of researchers has been issued separately

NATIONAL SCIENCE FOUNDATION RESEARCH RESOURCE ROSTER ON TELEVISION ADVERTISING AND CHILDREN

Summary

Respondents: 333

	n	
Professional Status.		
Ph D	230	69%
M S or M A	53	16%
Ed D	17	5%
B S or B A	10	3%
M D	3	1%
M B A	3	1%
Others	10	3%
Not reported	7	2%
Professional Affiliation		
Colleges of universities	246	74%
Business organizations	57	17%
Schools	10	3%
None	7	2%
Libraries	7	2%
Radio/TV Stations	3	1%
Others	3	1%

Summary

Professional Discipline		
Psychology	120	36%
Mass Communication	93	28%
Education	30	9%
Marketing	26	8%
Sociology	17	5%
Educational Research	7	2%
Librarianship	7	2%
Advertising	3	1%
Others	30	9%
Research Specialty		
Social effects of mass comm	67	20%
Audience research	50	15%
Cognition	43	13%
Consumer research	23	7%
Verbal learning processes	17	5%
Survey research	13	4%
Information processing	10	3%
Program analysis and evaluation	10	3%
Others	100	30%

Summary

Research Facilities	n	
a Population-Age		
9 - 12 yrs	246	74%
5 - 8 yrs	243	73%
Adolescents	223	67%
Adults	210	63%
Infant - 4 yrs	150	45%
Minorities	137	41%
Women	117	35%
Elderly	117	35%
Poor	103	31%
Men	90	27%
b Population-Source		
Elementary schools	226	68%
Colleges, universities	220	66%
Junior high schools	180	54%
High schools	186	53%
Preschools	173	52%
Day care centers	167	50%
Private homes	137	41%
Community centers	97	29%
Libraries	97	29%
Business organizations	73	22%
Private clubs	60	18%
c Research Mode		
Field experimental	270	81%
Survey	256	77%
Literature review & analysis	236	71%
Laboratory study	230	69%
Case study	183	55%
Community participation	170	51%
d Facilities		
Schools	246	74%
Library	210	63%
Laboratory	170	51%
Studio	130	39%
Home	117	35%
e Equipment		
Standard audio-visual recorders	210	63%
Standard audio-visual receivers	200	60%
Psychophysical testing equipment	23	7%
Paper and pencil type	7	2%

Summary

New Project Lead Time:	n	
1 month	103	31%
3 months	100	30%
None	60	18%
Varies	27	8%
6 months	17	5%
Longer than 6 months	3	1%
Not reported	23	7%
Open Dissemination of Findings:		
Yes	260	78%
Maybe	43	13%
No	17	5%
Not reported	13	4%
Findings:		
In the published literature	196	59%
Upon request only	77	23%
Not available, confidential	23	7%
Not reported	37	11%
Length of Professional Service:		
Since 1970	180	54%
Since 1965	77	23%
Since 1960	33	10%
Since 1950	30	9%
Since 1940	7	2%
Since before 1940	3	1%
Not reported	3	1%
Length of Experience in Child/TV Research:		
1 - 5 yrs	160	48%
6 - 10 yrs	103	31%
11 - 15 yrs	27	8%
16 yrs +	23	7%
Not reported	20	6%
Prior Professional Interest:		
Social or Dev Psychology	50	15%
Social effects of TV	47	14%
Education	26	8%
Radio/TV Broadcasting & Production	26	8%
Advertising	17	5%
Consumerism	17	5%
Audience Research	13	4%
Verbal learning	10	3%
Others and not reported	127	38%

Interest in Research Topics:

	Considerable interest		Some interest		No interest	
	n	%	*n*	%	*n*	%
Advertising Practices						
Separating programs from commercials	93	28	53	16	187	56
Exaggeration or distortion	153	46	27	8	153	46
Misleading comparisons	113	34	37	11	183	55
Celebrity endorsements	53	16	53	16	227	68
Host selling	23	7	50	15	260	78
Premiums, contests	43	13	50	15	240	72
Direct pressure to purchase	90	27	40	12	203	60
Perceptual/Cognitive Issues						
Visual-verbal integration	117	35	50	15	166	50
Awareness of special effects	93	28	50	15	190	57
Vulnerability to broadcasting techniques	177	53	23	7	133	40
Information processing	196	59	30	9	107	32
Child Development Issues						
Safety	83	25	63	19	187	56
Medicines, vitamins	57	17	57	17	220	66
Nutrition	96	29	57	17	180	54
Sex roles/sex differences	153	46	43	13	137	41
Health information	83	25	60	18	190	57
Values orientation	226	68	20	6	87	26
Consumer Socialization						
Appeals to self-image	173	52	20	6	140	42
Sexual connotations	100	30	47	14	186	56
Social status appeals	157	47	26	8	150	45
Cost/value emphasis	93	28	50	15	190	57
Social Policy Issues						
Policy statements	183	55	7	2	143	43
Guidelines/codes	167	50	0	0	167	50

Appendix C

National Association of Broadcasters *Code News*,
Vol. 8, No. 10, October 1975

Children's Television Advertising Guidelines

PREAMBLE

Children, especially preschoolers, are highly dependent on the guidance and direction of the adult world around them—television included—for their individual development. Since children, especially when unsupervised by adults, may not in all situations be able to discern the credibility of what they watch, they pose an ethical responsibility for others to protect them from their own potential susceptibilities. However, broadcasters believe that advertising of products or services normally used by children can serve to inform children not only of the attributes of products/services but also of many aspects of the society and world in which they live. Everyone involved in the creation, production, and presentation of such advertising to children has a responsibility to assure that such material avoids being exploitative of or inappropriate to a child's still developing cognitive abilities and sense of value.

Recognizing these special considerations the NAB Code Authority issues these Children's Television Advertising Guidelines designed to assist manufacturers, their agencies, and broadcasters in the preparation and evaluation of television commercials.

Except where hereinafter stated, these *guidelines apply to advertising of products designed primarily for children or to advertising which is telecast during programs designed primarily for children or within station breaks between such consecutive programs designed primarily for children*

In addition to the following special guidelines, all such advertising is subject to review, where applicable, under the standards contained in the Television Code

I General

A. Documentation adequate to support the truthfulness and accuracy of all claims and representations contained in the audio or video of the advertisement must be made available upon request to broadcasters and/or the Code Authority.

B. The disclosure of information on the characteristics and functional aspects of a product/service is strongly encouraged. This includes, where applicable, relevant ingredient and nutritional information. In order to reduce the possibility of misimpressions being created, all such information shall be presented in a straightforward manner devoid of language or production techniques which may exaggerate or distort the characteristics or functions of the product.

C Television advertisements shall not include presumptions that a product or service requiring material investment can be had for the asking. Children shall not be directed to purchase or to ask a parent or other adult to buy a product or service for them.

D In order to help assure that advertising is nonexploitative in manner, style, and tone, such advertising shall avoid using exhortative language. It shall also avoid employing irritating, obtrusive or strident audio techniques, or video devices such as cuts of less than 1 second in length, a series of fast cuts, special effects of a psychedelic nature (e.g., flashing colors, flashing lights, flashing supered copy, or other effects which could overglamorize or mislead).

E Any representation of a child's concept of himself/herself or of his/her relationship to others must be constructively handled. When self-concept claims are employed, the role of the product/service in affecting such promised benefits as strength, growth, physical prowess, and growing up must accurately reflect documented evidence

F. Advertisements shall not portray attitudes and practices inconsistent with generally recognized social values and customs.

G. Appeals shall not be used which directly or by implication contend that if children have a product they are better than their peers or lacking it will not be accepted by their peers.

H. Material shall not be used which can reasonably be expected to frighten children or provoke anxiety, nor shall material be used which contains a portrayal of or appeal to violent, dangerous, or otherwise antisocial behavior.

I. Advertisements and products advertised shall be consistent with generally recognized standards of safety. Advertisements shall not include demonstrations of any product in a manner that encourages harmful use or dramatizations of actions inconsistent with generally recognized standards of safety.

J. The use of real-life authority figures/celebrities as product presenters shall not include their personal testimonials or endorsements.

K Persons who are recognized as being identified, specifically or generically, with an advertised product's counterpart in real-life may not be used as spokespeople or endorsers. This prohibition also applies to actors representing such persons.

L. Nonprescription medications and supplimental vitamin products, regardless of how taken or administered, shall not be advertised in or adjacent to programs initially designed primarily for children under 12 years of age. (This prohibition does not apply to products which have been vitamin enriched or fortified in accordance with accepted nutritional principles)

M. Advertisements shall not include dramatizations of any product in a realistic war atmosphere.

N Oversimplification or minimization of price such as "only" or "just" shall not be used.

Price may be employed in advertising only if it can be supported as the usual and customary price in a substantial number of retail outlets in the given trade area or areas where the advertising is scheduled.

O. Advertisements shall include audio and video disclosure when items such as batteries needed to operate a product as demonstrated in the advertising are not included.

P. Positive exposition of a product's own attributes are acceptable. However, because of their potential to encourage dissatisfaction on a child's part, competitive/comparison/superiority claims or techniques are disallowed.

Q. Advertising shall positively and clearly disclose a product's method of operation and source of power, where applicable.

R. Advertising shall disclose when a product requires assembly. There shall be no demonstration which creates the impression that a product comes fully assembled when such is not the case.

II. Products/Special Categories

A Toys

In addition to the foregoing I. General precepts the following guidelines are applicable to all television toy advertising and to other advertising designed primarily for children which emphasizes a product's play value. Excepted are those commercials primarily designed for and directed to adults.

1. Advertising shall present the toy on its actual merit as a play thing. It shall neither exaggerate nor distort play value.

2. Audio and visual production techniques shall not misrepresent the appearance and performance of toys Any view of a toy or

any demonstration of its performance shall be limited to that which a child is reasonably capable of reproducing.

3. When a toy is presented in the context of a play environment, the setting and situation shall be that which a child is reasonably capable or reproducing.

4. The use of stock film footage, real-life counterparts of toys, fantasy, and animation are acceptable if; (a) they are confined to the first one-third of the commercial, (b) no child or toy appears within them and, (c) the commercial as a whole conforms to the Children's Television Advertising Guidelines.

   Any other use of stock film footage, real-life counterparts, fantasy, and animation and any overglamorization (e.g., large displays, dazzling visual effects) is not permitted.

5. The original purchase must be clearly disclosed in the body of the commercial. There shall not be any implication that optional extras, additional units or items that are not available with the toy, accompany the toy's original purchase.

   In the closing 5 seconds of the commercial the original purchase must be disclosed by video with audio disclosure where necessary for clarification.

6. Advertising shall not employ costumes and props which are not available with the toy as sold or are not reasonably accessible to the child without additional cost.

Premiums and Offers

The Advertising Guidelines for Children's Premiums and Offers shall be applied to all advertising designed primarily for children which promotes premiums or offers. Excepted are those commercials which are primarily designed for and directed to adults.

1. The amount of time devoted to a premium or offer shall be a continuous segment and shall not exceed one-half of the commercial or 20 seconds, whichever is less in length. If the premium/offer is related to and used with the product advertised, its incidental appearance in the product segment of the commercial will be permitted on a case-by-case basis.

2. The premium/offer shall at some time be displayed in a still visual presentation, so that it is clearly depicted.

3. In the premium/offer segment, the use of stock footage, real-life counterparts, fantasy, or animation is not permitted. In order to maintain continuity, the product spokesperson may deliver a lead-in to the premium/offer segment, provided it contains no endorsement or sell copy for the premium or offer. Also for continuity, the voice-over used in the premium/offer segment may be that of the product spokesperson.

4. The number of items shown in a play situation shall not exceed two per child, or a maximum of four with two or more children, unless the possession of more by one child can be reasonably supported by the advertiser.

5. Positive disclosure of special information, such as the price or separate purchase nature of the items offered, shall be made in the audio. As deemed appropriate, supporting disclosure simultaneously in the video will be required.

6. If any conditions are attached to obtaining a "free" premium or offer, all the conditions must be clearly and conspicuously disclosed simultaneously in audio and video. The appearance of the word "free" in a video super shall not exceed in size that of the conditions disclosed.

7. Toy Advertising Guidelines and all Children's Television Advertising Guidelines shall apply where applicable to premiums and offers.

C. Food

All Children's Television Advertising Guidelines under I. General in addition to the following specific guidelines will apply to food advertising.

1. Given the importance of sound health and nutritional practices, advertisements for edibles shall be in accord with the commonly accepted principles of good eating and seek to establish the proper role of the advertised product within the framework of a balanced regimen. Any representation of the relationship between an edible and energy must be documented and accurately depicted.

2. Each commercial for breakfast-type products shall include at least one audio reference to and one video depiction of the role of the product within the framework of a balanced regimen

3 Special, enriched foods designed to serve as a substitute for a meal may be advertised as such provided their purpose and nutritional value are featured in the advertising and supported by adequate documentation.

EDITOR'S NOTE

During discussion of the new Children's Television Advertising Guidelines, the board offered the following interpretive comments:

1. An adult product may be advertised in or adjacent to a children's program if the commercial for the product meets all applicable Children's Television Advertising Guidelines and other Code standards and policies.

2. The word "buy" in Guideline I-C is to be understood in its broadest sense. Such words as "get," "obtain," are to be considered synonymous with "buy."

3. The word "adjacent" in Guidelines I-L and III-3 is to be understood as referring to station breaks that occur immediately before and after programs designed primarily for children.

4 The second paragraph of Guideline I-N is not intended to cover price/cost references in children's premiums/offers advertising.

5. In the implementation of Guideline I-P, a distinction should be made between nondurable (transient/consumable) products and durable products. A nondurable product (product designed to be used up and replaced in relatively short periods of time, e.g., foods, drinks, crayons, batteries) may be compared in a television commercial to the previous version of the same product. Advertising for all durable products is subject to review under Guideline I-P.

6. In certain limited situations, criterion #2 under III-Adult Interpretation may be waived. An example of such a situation is the use of a child actor/actress in advertising for a fast-food company that is adult oriented and scheduled in adult programs.

D. Snacks, Candy, Gum, and Soft Drinks

All Children's Television Advertising Guidelines under I. General in addition to the following guideline will apply to advertising for snacks, candy, gum, and soft drinks.

1. Commercials for products such as snacks, candies, gums, and soft drinks shall not suggest or recommend indiscriminate and/or immoderate use of the product

E. Clothing

All Children's Television Advertising Guidelines, I. General, will apply to clothing advertising. In addition where such advertising references the play value of clothing, the Toy Advertising Guidelines II. A. will also be applicable.

F. School/Educational Supplies

All Children's Television Advertising Guidelines, I. General, will apply to school/educational supply advertising. In addition where such advertising references the play value of the product, the Toy Advertising Guidelines II. A. will also be applicable.

G. Feature Film Trailers

Feature films, other than those appropriate for a general family audience shall not be advertised in or adjacent to programs initially

designed primarily for children under 12 years of age.

III. Adult Interpretation

Advertising of any product covered by the foregoing categories if designed for and directed to adults, will be exempted from the application of the provisions of the Children's Television Advertising Guidelines provided:

1. The creative concept and execution of the commercial, both the audio and video, are clearly and unequivocally designed to appeal to adults and not primarily to children under 12

2. Any use of a child is limited to a real-life situation and, if the child is used other than as an incidental, background character, such use is confined to a situation in which the parent/adult-child relationship is established and the parent/adult remains the dominant character.

3. The broadcast schedule does not include the placing of the commercial in or adjacent to programs designed primarily for children.

4. The commercial complies with all applicable Television Code standards.

With the exception of the section governing feature film trailers which takes effect January 1, 1976, the guidelines become effective September 1, 1976. Until that time current policies in each of the applicable areas addressed by the new guides will apply.

National Association of Broadcasters Television Code - 19th Edition, June 1976

Selected Sections Relevant to Children

II. Responsibility Toward Children

Broadcasters have a special responsibility to children. Programs designed primarily for children should take into account the range of interests and needs of children from instructional and cultural material to a wide variety of entertainment material. In their totality, programs should contribute to the sound, balanced development of children to help them achieve a sense of the world at large and informed adjustments to their society.

In the course of a child's development, numerous social factors and forces, including television, affect the ability of the child to make the transition to adult society.

The child's training and experience during the formative years should include positive sets of values which will allow the child to become a responsible adult, capable of coping with the challenges of maturity.

Children should also be exposed, at the appropriate times, to a reasonable range of the realities which exist in the world sufficient to help them make the transition to adulthood.

Because children are allowed to watch programs designed primarily for adults, broadcasters should take this practice into account in the presentation of material in such programs when children may constitute a substantial segment of the audience.

All the standards set forth in this section apply to both program and commercial material designed and intended for viewing by children.

ADVERTISING STANDARDS

IX General Advertising Standards

1. This Code establishes basic standards for all television broadcasting. The principles of acceptability and good taste within the Program Standards section govern the presentation of advertising where applicable. In addition, the Code establishes in this section special standards which apply to television advertising.

2. Commercial television broadcasters make their facilities available for the advertising

of products and services and accept commercial presentations for such advertising. However, television broadcasters should, in recognition of their responsibility to the public, refuse the facilities of their stations to an advertiser where they have good reason to doubt the integrity of the advertiser, the truth of the advertising representations, or the compliance of the advertiser with the spirit and purpose of all applicable legal requirements

3. Identification of sponsorship must be made in all sponsored programs in accordance with the requirements of the Communications Act of 1934, as amended, and the Rules and Regulations of the Federal Communications Commission.

4. Representations which disregard normal safety precautions shall be avoided.

   Children shall not be represented, except under proper adult supervision, as being in contact with or demonstrating a product recognized as potentially dangerous to them.

5. In consideration of the customs and attitudes of the communities served, each television broadcaster should refuse his/her facilities to the advertisement of products and services, or the use of advertising scripts, which the station has good reason to believe would be objectionable to a substantial and responsible segment of the community. These standards should be applied with judgment and flexibility, taking into consideration the characteristics of the medium, its home and family audience, and the form and content of the particular presentation.

6. The advertising of hard liquor (distilled spirits) is not acceptable.

7. The advertising of beer and wines is acceptable only when presented in the best of good taste and discretion, and is acceptable only subject to federal and local laws. *(See Television Code Interpretation No. 4)*

8. Advertising by institutions or enterprises which in their offers of instruction imply promises of employment or make exaggerated claims for the opportunities awaiting those who enroll for courses is generally unacceptable.

9. The advertising of firearms/ammunition is acceptable provided it promotes the product only as sporting equipment and conforms to recognized standards of safety as well as all applicable laws and regulations. Advertisements of firearms/ammunition by mail order are unacceptable. The advertising of fireworks is unacceptable.

10. The advertising of fortune-telling, occultism, astrology, phrenology, palm-reading, numerology, mind-reading, character-reading, or subjects of a like nature is not permitted.

11. Because all products of a personal nature create special problems, acceptability of such products should be determined with especial emphasis on ethics and the canons of good taste. Such advertising of personal products as is accepted must be presented in a restrained and obviously inoffensive manner.

12. The advertising of tip sheets and other publications seeking to advertise for the purpose of giving odds or promoting betting is unacceptable.

    The lawful advertising of government organizations which conduct legalized lotteries is acceptable provided such advertising does not unduly exhort the public to bet.

    The advertising of private or governmental organizations which conduct legalized betting on sporting contests is acceptable provided such advertising is limited to institutional type announcements which do not exhort the public to bet.

13. An advertiser who markets more than one product should not be permitted to use advertising copy devoted to an acceptable

product for purposes of publicizing the brand name or other identification of a product which is not acceptable.

14. "Bait-switch" advertising, whereby goods or services which the advertiser has no intention of selling are offered merely to lure the customer into purchasing higher priced substitutes, is not acceptable.

15 Personal endorsements (testimonials) shall be genuine and reflect personal experience. They shall contain no statement that cannot be supported if presented in the advertiser's own words.

X Presentation of Advertising

1. Advertising messages should be presented with courtesy and good taste; disturbing or annoying material should be avoided; every effort should be made to keep the advertising message in harmony with the content and general tone of the program in which it appears.

2. The role and capability of television to market sponsors' products are well recognized. In turn, this fact dictates that great care be exercised by the broadcaster to prevent the presentation of false, misleading or deceptive advertising. While it is entirely appropriate to present a product in a favorable light and atmosphere, the presentation must not, by copy or demonstration, involve a material deception as to the characteristics, performance, or appearance of the product.

   Broadcast advertisers are responsible for making available, at the request of the Code Authority, documentation adequate to support the validity and truthfulness of claims, demonstrations, and testimonials contained in their commercial messages.

3. The broadcaster and the advertiser should exercise special caution with the content and presentation of television commercials placed in or near programs designed for children. Exploitation of children should be avoided. Commercials directed to children should in no way mislead as to the product's performance and usefulness.

   Commercials, whether live, film, or tape, within programs initially designed primarily for children under 12 years of age shall be clearly separated from program material by an appropriate device

   Trade name identification or other merchandising practices involving the gratuitous naming of products is discouraged in programs designed primarily for children.

   Appeals involving matters of health which should be determined by physicians should not be directed primarily to children.

4. No children's program personality or cartoon character shall be utilized to deliver commercial messages within or adjacent to the programs in which such a personality or cartoon character regularly appears. This provision shall also apply to lead-ins to commercials when such lead-ins contain sell copy or imply endorsement of the product by program personalities or cartoon characters.

5. Appeals to help fictitious characters in television programs by purchasing the advertiser's product or service or sending for a premium should not be permitted, and such fictitious characters should not be introduced into the advertising message for such purposes.

6. Commercials for services or over-the-counter products involving health considerations are of intimate and far-reaching importance to the consumer. The following principles should apply to such advertising:

   a. Physicians, dentists, or nurses or actors representing physicians, dentists, or nurses, shall not be employed directly or by implication. These restrictions also apply to persons professionally engaged in medical services (e.g., physical therapists, pharmacists, dental assistants, nurses' aides).

   b. Visual representations of laboratory settings may be employed, provided

they bear a direct relationship to bona fide research which has been conducted for the product or service. *(See Television Code X, II,)* In such cases, laboratory technicians shall be identified as such and shall not be employed as spokespersons or in any other way speak on behalf of the product.

XIII. Premiums and Offers

1. Full details of proposed offers should be required by the television broadcaster for investigation and approved before the first announcement of the offer is made to the public.

2. A final date for the termination of an offer should be announced as far in advance as possible.

3. Before accepting for telecast offers involving a monetary consideration, a television broadcaster should be satisfied as to the integrity of the advertiser and the advertiser's willingness to honor complaints indicating dissatisfaction with the premium by returning the monetary consideration.

4. There should be no misleading descriptions or visual representations of any premiums or gifts which would distort or enlarge their value in the minds of the viewers.

5. Assurances should be obtained from the advertiser that premiums offered are not harmful to person or property.

6. Premiums should not be approved which appeal to superstition on the basis of "luck-bearing" powers or otherwise.

XIV Time Standards for Non-Program Material*

In order that the time for nonprogram material and its placement shall best serve the viewer, the following standards are set forth in accordance with sound television practice:

1. Non-Program Material Definition:

Nonprogram material, in both prime time and all other time, includes billboards, commercials, promotional announcements, and all credits in excess of 30 seconds per program, except in feature films. In no event should credits exceed 40 seconds per program. The 40-second limitation on credits shall not apply, however, in any situation governed by a contract entered into before October 1, 1971. Public service announcements and promotional announcements for the same program are excluded from this definition.

2. Allowable Time for Non-Program Material:

a. In prime time on network affiliated stations, nonprogram material shall not exceed 9 minutes 30 seconds in any 60-minute period.

Prime time is a continuous period of not less than 3 consecutive hours per broadcast day as designated by the station between the hours of 6:00 p.m. and midnight.

b. In all other time, nonprogram material shall not exceed 16 minutes in any 60-minute period.

c. Children's Programing Time—Defined as those hours other than prime time in which programs initially designed primarily for children under 12 years of age are scheduled

Within this time period on Saturday and Sunday, nonprogram material shall not exceed 9 minutes 30 seconds in any 60-minute period.

Within this time period on Monday through Friday, nonprogram material shall not exceed 12 minutes in any 60-minute period

*See Time Standards for Independent Stations p 20

3 Program Interruptions:

a. Definition. A program interruption is any occurrence of nonprogram material within the main body of the program.

b. In prime time, the number of program interruptions shall not exceed two within any 30-minute program, or four within any 60-minute program.

Programs longer than 60 minutes shall be prorated at two interruptions per half-hour

The number of interruptions in 60-minute variety shows shall not exceed five.

c In all other time, the number of interruptions shall not exceed four within any 30-minute program period.

d In children's weekend programing time, as above defined in 2c, the number of program interruptions shall not exceed two within any 30-minute program or four within any 60-minute program.

e. In both prime time and all other time, the following interruption standard shall apply within programs of 15 minutes or less in length:

5-minute program—1 interruption,

10-minute program—2 interruptions;

15-minute program—2 interruptions

TIME STANDARDS FOR INDEPENDENT STATIONS

1. Nonprogram elements shall be considered as all-inclusive, with the exception of required credits, legally required station identifications, and "bumpers." Promotion spots and public service announcements, as well as commercials, are to be considered nonprogram elements

2. The allowed time for nonprogram elements, as defined above, shall not exceed 7 minutes in a 30-minute period or multiples thereof in prime time (prime time is defined as any three contiguous hours between 6 00 p.m and midnight, local time), or 8 minutes in a 30-minute period or multiples thereof during all other times.

3. Where a station does not carry a commercial in a station break between programs, the number of program interruptions shall not exceed 4 within any 30-minute program, or 7 within any 60-minute program, or 10 within ary 90-minute program, or 13 in any 120-minute program. Stations which do carry commercials in station breaks between programs shall limit the number of program interruptions to 3 within any 30-minute program, or 6 within any 60-minute program, or 9 within any 90-minute program, or 12 in any 120-minute program News, weather, sports, and special events are exempted because of format.

4. Not more than four nonprogram material announcements as defined above shall be scheduled consecutively. An exception may be made only in the case of a program 60 minutes or more in length, when no more than seven nonprogram elements may be scheduled consecutively by stations who wish to reduce the number of program interruptions

5. The conditions of paragraphs three and four shall not apply to live sports programs where the program format dictates and limits the number of program interruptions.

CHILDREN'S REVIEW UNIT
National Advertising Division
Council of Better Business Bureaus, Inc
845 Third Avenue, New York, N.Y 10022

CHILDREN'S ADVERTISING GUIDELINES

PREAMBLE

These Guidelines have been developed for the use of advertisers and advertising agencies and for the self-regulatory mechanism which they have

established, the National Advertising Division, to help ensure that advertising directed to children is truthful, accurate, and fair to children's perceptions

Because trends in advertising are continually changing and because research and study are constantly shedding new light on children's development and understanding of advertising, these Guidelines will continue to be revised and modified on an on-going basis, as circumstances dictate

PRINCIPLES

Five basic Principles underlie these Guidelines for advertising directed to children

I Advertisers should always take into account the level of knowledge, sophistication, and maturity of the audience to which the message is primarily directed Since younger children have a limited capability for discerning the credibility of what they watch, they place a special responsibility upon advertisers to protect them from their own susceptibilities

II Realizing that children are imaginative and that make-believe play constitutes an important part of the growing up process, advertisers should exercise care not to exploit that imaginative quality of children Unreasonable expectations of product quality or performance should not be stimulated either directly or indirectly by advertising

III Recognizing that advertising may play an important part in educating the child, information should be communicated in a truthful and accurate manner, with full recognition on the part of the advertiser that the child may learn practices from advertising which can affect his or her health and well-being

IV Advertisers are urged to capitalize on the potential of advertising to influence social behavior by developing advertising that, whenever possible, addresses itself to social standards generally regarded as positive and beneficial, such as friendship, kindness, honesty, justice, generosity, and respect for others

V Although many influences affect a child's personal and social development, it remains the prime responsibility of the parents to provide guidance for children, and to exert necessary and proper influences in children's exposure to the world Advertisers should contribute to this parent-child relationship in a constructive manner.

A. Interpretation

Advertisers are reminded that the interpretation of these Guidelines should conform to and implement the Principles stated above. The intent in all cases should be to deal fairly and honestly with children, fulfilling the spirit as well as the letter of the Guidelines Each individual commercial or advertisement should be considered in that context Differences in the nature of broadcast media and print media should be taken into account The Guidelines should not be regarded as prescribing rigid or inflexible rules which may deprive children and advertisers of the benefits of innovations and new approaches

B. Scope

The clauses in these Guidelines embrace advertising designed to appeal to children 11 years of age and under. This includes children's advertising which is broadcast in children's programs and programs in which audience patterns typically contain more than 50% children. Commercials appearing in shows in which children are a substantial audience segment, but less than 50%, will be regarded as subject to these Guidelines only when they are clearly addressed to children 11 and under. Print advertising is subject to these Guidelines when it is primarily directed to or primarily read by children

C Social Values

Advertising should emphasize positive social and moral values and enrich the dignity of human life, as opposed to portrayals of violence, appeals to fear, or prejudice of any kind To this end

1 Advertisements should never portray as desirable any practices which are generally

considered unacceptable from the standpoint of social, legal, moral, institutional, or family values. Social stereotyping which is demeaning or derogatory to any group should be avoided.

2. Advertisements should not reflect disdain for parents or parental judgment, nor reflect unfavorably on other generally recognized sources of child guidance.

3. Advertisements should never portray undesirable living habits. Advertising should convey respect for others and the world in which the child lives. Civility and good manners should be encouraged.

4. Advertisements should encourage good use of language. This does not preclude informal usage.

5. Advertisements should avoid the contention that, by possessing a product, a child will be more accepted by his peers, or by lacking it, he or she will be less accepted by his peers.

6. Advertisements should avoid the implication that a parent or adult who purchases a given product or service for a child is better or more generous than one who does not.

7. Advertisements should not falsely imply that purchase and use of a product or service will confer upon the user the prestige, skills, or other special qualities of characters appearing in the commercial or ad. Material benefits attributed to the product or service should be inherent in the use thereof.

D. Presentation

Children have vivid imaginations. Use of imagination enables a child to project himself beyond his immediate capacities and reach for his future potential. Advertisers should, therefore, always respect a child's imagination.

The use of imaginative situations relevant to the audience concerned is an acceptable and normal communications practice. Implicit in the foregoing is the concept that fantasy, including animation, is an appropriate form of communication to any audience, including the very young.

However, the use of special situations and fantasy in advertising should not suggest unattainable expectations of performance.

To [illegible], presentations should not exploit the child's difficulty in distinguishing between the real and the fanciful.

Particular control should be exercised to assure that:

1. Copy, sound and visual presentations—as well as the advertisement in its totality—do not mislead on performance characteristics such as speed, method of operation, size, color, durability, nutrition, noise, etc.; on perceived benefits such as the acquisition of strength, popularity, growth, proficiency, intelligence, and the like; or on the expectation of price range or cost of the product.

2. The advertisement clearly establishes what is included in the original purchase of the advertised product, employing where necessary positive disclosure on what items are to be purchased separately in a way that will be understood by the child audience to which the advertisement is primarily addressed. All advertising for products sold unassembled should indicate that assembly is required. If any other product is essential in order to use the advertised product—such as batteries—this should be disclosed.

3. A clearly depicted presentation of the complete advertised product is shown in the advertisement. When appropriate in helping to identify the product, the package may also be depicted, provided it does not mislead as to product characteristics, content, or the price range to be expected.

4. Advertising demonstrations showing the use of a product or premium can be readily duplicated by the average child for whom the product is intended.

5. Representations of food products should be made so as to encourage sound usage of

the product with a view toward healthy development of the child and the development of good nutritional practices Advertisements representing mealtime in the home should clearly and adequately depict the role of the product within the framework of a balanced diet Overconsumption of food products and beverages should be avoided, nor should it be implied that any one food provides all the nutrients contained in a well-designed daily food plan

6 To ensure accurate and truthful representation of playthings, they should be shown in normal play environments and situations

7 A fair and equitable number of products should be featured, consistent with the number of children shown in the play setting. Should a whole line of toys or more toys than might be reasonably owned by the average child be featured, limbo settings (which are defined as nonrepresentational settings with a plain background) or in-store settings are suggested, as they might provide a better context for fair demonstration of these products to children.

E Promotion by Program Character, Editorial Character, or Personal Endorsement

It is recognized that very young children may not fully recognize differences between editorial and program content and advertising content Hence, endorsement by characters on the programs or in the editorial content of a publication may confuse children Therefore

1 Program personalities or program characters (live or animated) on children's programs should not be used to promote products, premiums, or services in or adjacent to any program where the personality or character appears

2 In print media, characters and personalities associated with the editorial content of a publication should not be used to promote products, premiums, or services in the same publication

3 Subject to paragraph (1) of this section, "product characters"—personalities live or animated who are closely associated with or identified with the product—may be used as presenters for the advertised product or service, provided they do not do or say anything to mislead children as to the product or service concerned.

4 Nationally known persons may not be used to attribute a characteristic or quality to a product (including a premium) unless they are generally recognized as qualified to speak on the subject. All personal endorsements should reflect the real experience and beliefs of the endorser

F Comparative Claims

It is recognized that advertising which compares the advertised product to another product may be difficult for children to understand and evaluate and may therefore be misunderstood Therefore, advertisers are urged to represent products on their merits without reference to competition

In the event that a true and significant advantage may exist in a product which can be readily understood by children, this advantage should be clearly explained If advertisers should develop comparative advertising to children this should be done with the following cautions in mind

1 Comparative statements should be informational and not demeaning to other products or to previous versions of the same product

2 Comparative statements should not suggest that the advertised product is superior to another in individual attributes or overall characteristics unless such statements can be documented

3 Comparative statements implying overall superiority should be avoided when such statements are based on attributes in which the advertised product excels, and where the competitor's product excels in other attributes not mentioned

4 Comparative price statements should be based on the usual and customary price paid in a substantial number of sales in the trade area where the advertising is carried Price comparisons should be understandable to the average child for whom the product is intended

G. Pressure to Purchase

The purpose of advertising to children is to encourage trial and repeat purchase However, children are not as prepared to make independent decisions—or contribute to family decisions—as are adults. Accordingly, to avoid undue pressure to purchase:

1. Children should not be urged to ask parents or others to buy any product.
2. Products which by their very nature are not primarily intended for use by children should not employ advertising directed to children; nor should such products be promoted by premiums or other means directly to children.
3. All price representations should be clearly and concisely set forth in a manner so as not to exert undue pressure to purchase, and price minimizations such as "only" or "just" should not be used in any advertising directed to children.
4. When toys or any other product can be purchased either individually or as a collection of related items, price representation should clearly indicate to the child that the cost of the collection is greater than the cost of the individual item.

H. Safety

For the child, imitation, exploration and experimentation are important facets of the learning process The various media can enhance this process, as can advertising in each of the media which the child encounters. Recognizing this, advertisers should guide their advertising to contribute to the establishment of safe and sound habits in children.

Moreover, children, and occasionally parents, may not be cognizant of hazards that may exist through use or abuse of products. Therefore:

1 Advertisements, except specific safety messages, should not portray adults or children in any unsafe acts, situations, or conditions or in acts which are harmful to others.

2. Advertisements should avoid demonstrations or portrayals that encourage misuse, or dangerous or inappropriate use of the product which is inconsistent with generally accepted standards of safety.
3. Medications, drugs, and supplemental vitamins (liquid or pills) should not be advertised to children.

I Claim Substantiation

In accordance with the basic principle of dealing fairly and honestly with children:

1. Advertising to children should not claim or imply any product or performance characteristics which are not supportable by factual data or research which conforms to sound professional practices
2. Puffery (defined as "flattering publicity" or "extravagant commendation") is not acceptable support for an objective product claim. Advertising claims which might be construed as literally true must be literally true.

J. Additional Guidelines for Premium Advertising

The use of premiums in advertising has potential to enhance the appeal of a product to a child. Special attention should, therefore, be paid to the use of premiums in advertising. To guard against premiums exploiting the children's immaturity:

1 Care should be taken that the child's attention is focused primarily on the product rather than the premium. Therefore, major emphasis should be given to the product and its benefits. Emphasis on the premium should be clearly secondary.

2. It is recognized that limitation of the time devoted to a premium offer within a commercial may not be sufficient to ensure primary attention to the product offer. Therefore, advertisers are urged to weigh all factors, including time, to ensure that the product message is primary.

3 When a premium offer is used, the conditions of the offer should be stated simply,

in terms which a child can understand. Every effort should be made to communicate so-called "mandatory" statements and disclaimers in terms which will be understood by a child audience.

CHILDREN'S REVIEW UNIT
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