Television advertising aimed at children
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Citation for published version (APA):

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CHAPTER 4

THE EFFECTS OF TELEVISION ADVERTISING ON
MATERIALISM, PARENT-CHILD CONFLICT, AND UNHAPPINESS:
A REVIEW OF RESEARCH

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Manuscript Submitted for Publication

Abstract

In this article, we introduce a model for the unintended effects of advertising. This model describes the existing hypotheses about the impact of advertising on (a) materialism, (b) parent-child conflict, and (c) unhappiness. The validity of each of these hypotheses is tested using a vote-counting analysis. Our analyses yielded a small to moderate effect size for the relation between advertising and materialism as well as a small to moderate effect size for the relation between advertising and parent-child conflict. Support for the hypothesized relation between advertising and unhappiness was not found. Our vote-counting analysis provides several working hypotheses for further research as well as some suggestions for moderator variables that should be taken into account in future research.

Introduction

Television advertising aimed at children has been the subject of considerable public concern, both in the United States and in Europe. In the United States, policies restricting advertising aimed at children were formed as early as the 1970s. Two decades later, several European countries implemented rules or regulatory policies concerning advertising directed at children. Belgium for example, issued the Five-
minute rule in 1995, a decree which states that children’s programs may not be immediately preceded or followed by children’s advertisements. In the same period, Greece proclaimed a partial ban on advertising, prohibiting toy advertising between 7 A.M. and 10 P.M. Finally, in 1995, Norway introduced a total ban on television advertising directed at children, followed by Sweden in 1996.

These restrictions on television advertising directed at children are based on either ethical concerns among parents and policy makers about the unfairness of advertising to children or on beliefs that television advertising has harmful effects on children. However, although the possible aversive effects of advertising have been debated since television was introduced, there is still no consensus about what these effects are, and whether they are supported by empirical research. The main aim of this review study is to identify and analyze the existing hypotheses on the negative effects of television advertising, and to examine the extent to which these hypotheses are supported by empirical research. Our literature review focuses on three possible harmful effects of television advertising: The effects on materialism, parent-child conflict, and unhappiness.

Studies on the effects of advertising to children are generally based on two paradigms: the paradigm of the empowered child and the paradigm of the vulnerable child. According to the empowered child paradigm, children are skilled consumers capable of critically processing commercial messages. Research based on this paradigm, mostly marketing research, generally focuses on the intended effects of advertising. Intended advertising effects refer to children’s brand awareness, brand attitudes, and purchase intentions.

Advertising-effects research based on the vulnerable child paradigm assumes that children lack the cognitive skills to protect themselves against advertising messages. It is believed that children are, more than adults, susceptible to the seductive influences of commercials. Research within the vulnerable child paradigm usually investigates to what extent advertising is harmful for children and whether children should be protected from these possibly harmful effects. This research focuses on the unintended effects of advertising, for example on family conflict and materialistic values. In other words, unintended effects are the secondary, usually negative, effects of exposure to advertising.

Several earlier reviews have discussed the unintended effects of advertising (Atkin, 1980; Goldstein, 1998; Kunkel, 2001; Young, 1990). The present review differs from these reviews in two respects. First, unlike earlier reviews, which were
narrative in nature, we conducted a vote-counting analysis. A vote-counting analysis is a formalized count of the number of studies that either produce or fail to produce statistically significant findings in the hypothesized direction. A vote-counting analysis is considered the most suitable and accepted method of research synthesis when a meta-analysis is not appropriate (Bushman, 1994; Cooper, 1990). Although a meta-analysis is undoubtedly the most valuable method of literature synthesis, not all literatures qualify for such an analysis. For example, in the case of the advertising-effects literature, each advertising effect (materialism, parent-child conflict, unhappiness) has been addressed by only a handful of studies. Moreover, most of these studies reported only partial relations, which do not allow for meta-analytic procedures (Cooper, 1990; Johnson & Eagly, 2000). However, as Cooper and Hedges (1994) have pointed out, even if a literature is small and heterogeneous it is important to conduct a formal literature synthesis when the literature has accumulated in a certain period of time. Such a synthesis can lead to sophistications in academic theories, demonstrate which hypotheses have received more or less research attention, and give direction to future empirical research.

Second, unlike earlier narrative reviews, our vote-counting analysis provides a comprehensive review of the research literature. Earlier narrative reviews on the unintended effects of advertising have usually discussed a selection of the research, without reporting any criteria on how they selected the empirical studies that were included in their reviews. Non-systematic literature searches can easily lead to biased samples and, as a result, to biased conclusions (Davies, 2000; Johnson & Eagly, 2000). This could explain why conclusions about advertising effects have been inconsistent. Whereas some narrative reviews acknowledge that advertising has negative effects on children (Kunkel, 2001), others conclude that advertising has no, or only negligible, effects (Goldstein, 1998). In preparing this vote-counting analysis, we collected all relevant references from the standard computer-searchable databases (Econlit, ERIC, PsycInfo, Sociological Abstracts, and Social Sciences Citation Index), including studies published up to the Fall of 2001. In addition, references from these publications were examined in order to trace articles, chapters, and unpublished reports that were not recorded in these databases.
Advertising enhances materialism (path 1). Several authors suggest that advertising stimulates materialistic values in children (Greenberg & Brand, 1993; Liebert, 1986; Pollay, 1986; Wulfemeyer & Mueller, 1992). According to these authors, advertising enhances materialism because it is designed to arouse desires for products that would not otherwise be salient. Advertising propagates the ideology that possessions are important and that desirable qualities, such as beauty, success, and happiness can be obtained only by material possessions (Pollay, 1986; Wulfemeyer & Mueller, 1992).
Advertising causes parent-child conflict (path 2). A second hypothesis states that exposure to advertising leads to parent-child conflict (see path 2; Atkin, 1980; Robertson, 1979). However, although it possible that advertising exposure directly influences parent-child conflict, it seems more plausible that this relation is mediated by children's purchase requests and parental denial of these requests. According to this mediated hypothesis, advertising (a) leads to an increased number of requests for advertised products, which (b) leads to an increased number of product denials (given that not all requests can be granted), which (c) causes conflict between parent and child. These mediated relations are represented by paths $2_a$, $2_b$, and $2_c$ in Figure 4.1.

As Figure 4.1 shows, the product denial variable is represented by a dashed square box. This dashed box indicates that studies investigating the relation between advertising exposure and parent-child conflict only implicitly assume that this relation is mediated by parental denial. None of these studies have actually operationalized product denial as a mediating variable.

Advertising makes children unhappy (path 3). Finally, several authors argue that advertising may cause unhappiness in children. Most of these authors have investigated a direct relation between exposure to commercials and unhappiness, represented by path $3_a$ (e.g., Martin & Kennedy, 1993; Richins, 1991). One explanation for this direct relation stems from social-comparison theory. Advertising is assumed to depict a world with beautiful people and desirable products. When children watch television advertising and compare their own situation with this idealized world in the commercials, the discrepancy between the two worlds might cause unhappiness (Atkin, 1980; Richins, 1991).

Another explanation has to do with the way in which products and brands are depicted in commercials. By using special camera and editing techniques (e.g., close-ups, moving images of toys that are unable to move by themselves), commercials can create unrealistic expectations regarding the performance and quality of products. It is assumed that young children are not yet capable of seeing through these techniques. When after the purchase the product does not meet the child's expectations, the child becomes frustrated, dissatisfied, and unhappy (Atkin, 1980; Robertson, Rossiter, & Ward, 1985; Ward, Wackman, & Wartella, 1977).

Finally, there are hypotheses about one or more mediated paths between advertising exposure and unhappiness. A first mediated hypothesis is that advertising exposure (a) leads to materialism, which (b) leads to unhappiness.
because materialistic people are assumed to be less happy (path 3b). Materialistic people consider objects as an important means to gain happiness (Sirgy, 1998). When the products fail to yield the promised state of happiness, disappointment and unhappiness will follow (Richins, 1991). A second mediated hypothesis states that parental denial of children's purchase requests causes unhappiness (path 3c). It is assumed that greater exposure to advertising causes children to make more purchase requests to their parents. When children do not receive the requested products, they may become disappointed, dissatisfied, and hence, unhappy (Atkin 1980; Goldberg & Gorn, 1978; Sheikh & Moleski, 1977).

**Empirical Evidence: Materialism**

A total of eight studies examined the direct relation between television advertising and materialism in children (path 1 in Figure 4.1): five correlational studies (Atkin 1975a, 1975b; Churchill & Moschis, 1979; Moschis & Churchill, 1978; Ward & Wackman, 1971), one causal-correlational study (Moschis & Moore, 1982), one quasi-experiment (Greenberg & Brand, 1993) and one laboratory experiment (Goldberg & Gorn, 1978). Five of these eight studies were conducted among adolescents and three among children until the age of 12.

**Definition and Operationalization of Materialism**

Materialism is considered as a preoccupation with money and possessions (Belk, 1985; Rossiter, 1980) and the idea that personal wealth and material possessions are the key to success and well-being (Fournier & Richins, 1991). Most correlational studies on the relation between advertising and materialism have used Ward and Wackman's (1971) operationalization of materialism (Churchill & Moschis, 1979; Moschis & Churchill, 1978; Moschis & Moore, 1982). In these studies, a four- or five-item scale was used with items such as "It is really true that money can buy happiness," and "My dream in life is to be able to own expensive things." In Goldberg and Gorn's (1978) experiment, materialism was operationalized as a preference for toys over friends.
# Table 4.1: Correlational Studies on the Relation Between Advertising Exposure and Materialism

<table>
<thead>
<tr>
<th>Study</th>
<th>N (Age in years)</th>
<th>Measures of exposure</th>
<th>Control variables</th>
<th>Moderator variables</th>
<th>Direction of relation</th>
<th>Strength of relation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward &amp; Wackman (1971)</td>
<td>1094 (13-15; 15-18)</td>
<td>TV viewing frequency</td>
<td>SES, IQ, money; family communication; motivations for watching commercials; magazine readership</td>
<td>0 Age</td>
<td>0 (TV viewing frequency)</td>
<td>Younger children: $\beta = -0.01$ ns, Older children: $\beta = -0.07$ ns</td>
</tr>
<tr>
<td>Atkin (1975a)</td>
<td>775 (9-11; 11-13)</td>
<td>TV viewing frequency</td>
<td>None and age, sex, SES, school performance</td>
<td>0 Age, 0 Sex, 0 SES</td>
<td>0 (Advising viewing frequency)</td>
<td>$r = 0.24$, $pr = 0.18$</td>
</tr>
<tr>
<td>Moschis &amp; Churchill (1978)</td>
<td>806 (12-18)</td>
<td>TV viewing frequency</td>
<td>None and age, sex, SES, family communication, peer communication, motivations for watching commercials and TV programs, newspaper readership, consumer education</td>
<td>0 Age</td>
<td>0 (TV viewing frequency)</td>
<td>$r = 0.13$, $\beta = 0.07$ ns</td>
</tr>
<tr>
<td>Churchill &amp; Moschis (1979)</td>
<td>806 (12-18)</td>
<td>TV viewing frequency</td>
<td>Age, sex, SES, family communication, peer communication, birth order</td>
<td>None</td>
<td>0 (Advising viewing frequency)</td>
<td>$\beta = 0.11$</td>
</tr>
<tr>
<td>Moschis &amp; Moore (1982)</td>
<td>211 (12-15; 15-18)</td>
<td>Advertising viewing frequency</td>
<td>None</td>
<td>0 Age</td>
<td>Cross-sectional results:</td>
<td>$r = 0.32$</td>
</tr>
<tr>
<td>Idem</td>
<td>Idem</td>
<td>Idem</td>
<td>Idem</td>
<td>Idem</td>
<td>Idem</td>
<td>Longitudinal results:</td>
</tr>
</tbody>
</table>

$r = $ product-moment correlation coefficient; $pr = $ partial correlation coefficient; $\beta = $ standardized multiple correlation coefficient.
Correlational Studies
The specific characteristics (sample size, age of children, control variables, and moderator variables) of the correlational studies on the relation between television advertising and materialism are presented in Table 4.1. The two right-hand columns in Table 4.1 present the direction and strength of the observed relations. The coefficients ($r, pr, \beta$) are included in the table to give an indication of the effect sizes that have been found.

Four studies reported zero-order correlations (Atkin, 1975a, 1975b; Moschis & Churchill, 1978; Moschis & Moore, 1982). In each of these studies, the reported correlations were positive and significant, ranging from $r = .13$ (Moschis & Churchill, 1978) to $r = .32$ (Moschis & Moore, 1982). In three out of the four studies, the relation between viewing frequency and materialism was still significant when controls were added for age and sex, socioeconomic status, school performance, ethnicity, parent and peer communication about consumption, and birth order. The significant correlation observed by Moschis and Churchill (1978) disappeared when they simultaneously controlled for nine variables, including family communication about consumption and motivations for watching commercials. Similarly, Ward and Wackman (1971) did not find a significant correlation between television exposure and materialism when controlling for motivation for watching advertising. However, it is questionable whether exposure and motivation variables should be included simultaneously in a regression analysis. It is very well possible that motivation measures are correlated highly with exposure measures. Highly correlated predictors can lead to serious estimation problems and spurious relations (Lewis-Beck, 1980; Stevens, 1996), and, hence, may lead to questionable results.

Quasi-Experimental and Experimental Studies
Two (quasi-)experimental studies investigated the relation between advertising exposure and materialism. Greenberg and Brand (1993) studied 782 adolescents and examined differences in materialism between teenagers enrolled in schools receiving the commercial school program Channel One and teenagers attending schools without this program. Teenagers attending schools with Channel One were more materialistic than teenagers from schools without the program ($r = .11$).\(^1\)

Goldberg and Gorn (1978) exposed 231 four- to five-year-old children to a 10-minute preschool program. The children were randomly assigned to three groups. The first group watched a program into which two identical toy commercials were
edited. A second group was exposed to the same program and commercials on two successive days. A control group saw the program without the commercials. After the television program, all children were shown two photographs. The first photograph showed a boy holding the advertised toy. The second one pictured another boy, who was not holding a toy. The children were told that the boy who was holding the advertised toy was a "not so nice boy." The children were then asked whether they would like to play with the not-so-nice boy with the toy or with the nice boy without the toy. More than half of the children who were exposed to the commercials chose to play with the not-so-nice boy with the advertised toy, whereas in the control group only 30% of the children chose to play with the not-so-nice boy with the toy.

In the same experiment, Goldberg and Gom (1978) used a second operationalization of materialism. The children were asked whether they would like to play with the advertised toy or with their friends in the sandbox. More than half of the children who had watched the commercials preferred the toy over their friends, whereas only 30% of the children in the control group preferred the toy. However, it is doubtful whether this experiment has really demonstrated that advertising makes children materialistic. It is also conceivable that the attractive toy commercial temporarily aroused children's curiosity, and that it is curiosity and not materialism that caused the children to choose a toy over a friend.

**Moderator Variables**

The majority of studies among older children and adolescents did not find age differences in the effect of advertising on materialism. Neither did they find a moderating effect for sex, SES, or peer communication. In the causal-correlational study by Moschis and Moore (1982) among adolescents, the effect for advertising on materialism held only for (a) adolescents who initially scored low on materialism, and (b) adolescents from families who do not discuss consumption matters.

The first moderator effect found by Moschis and Moore (1982) is probably a ceiling effect. After all, when children already score high on materialism at the outset of the study, it is less likely that advertising can still contribute to this materialistic attitude. The second moderator effect can be explained by the mediating role of parents. A series of studies have shown that parents can reduce or even counteract the negative effects of television, including advertising effects (Nathanson, 1999; Valkenburg, Krcmar, Peeters, & Marseille, 1999). Moschis and Moore's (1982) findings demonstrate that this also holds true for advertising effects on materialism.
Empirical Evidence: Parent-Child Conflict

Eleven studies have examined one or more causal paths linking advertising to parent-child conflict (see path $2_a$, $2_b$, and $2_c$ in Figure 4.1): Nine correlational studies (Atkin, 1975a, 1975b; Buijzen & Valkenburg, 2000; Galst & White, 1976; Isler, Popper, & Ward, 1987; Robertson & Rossiter, 1976, 1977; Robertson, Ward, Gatignon, & Klees, 1989; Ward & Wackman, 1972) and two experiments (Goldberg & Gorn, 1978; Stoneman & Brody, 1981).²

Definition and Operationalization of Parent-Child Conflict

Parent-child conflict has been operationalized in two ways. In correlational research, children or parents were asked to indicate how often they had a conflict with the other party about product purchases. In experimental research, diary studies, and observational research, parent-child conflict was indicated by children's negative reactions to parental denial of a purchase request.

Correlational Studies

Eight studies investigated the relation between advertising exposure and purchase requests (path $2_a$; Atkin, 1975a, 1975b; Buijzen & Valkenburg, 2000; Galst & White, 1976; Isler et al., 1987; Robertson & Rossiter, 1976, 1977; Robertson et al., 1989), four studies the relation between purchase requests and parent-child conflict (path $2_{bc}$; Atkin, 1975a, 1975b; Robertson et al., 1989; Ward & Wackman, 1972), and two studies examined the direct relation between exposure to advertising and parent-child conflict (path 2; Atkin 1975a, 1975b).

The specific characteristics (sample size, age of children, control variables, and moderator variables) of the correlational studies on the relations between television advertising and parent-child conflict are presented in Table 4.2. The three right-hand columns of the table represent the coefficients of the relations between exposure and purchase requests (path $2_a$), between purchase requests and parent-child conflict (path $2_{bc}$) and between advertising exposure and parent-child conflict (path 2), respectively.
Table 4.2: Correlational Studies on the Relation Between Advertising Exposure and Parent-Child Conflict

<table>
<thead>
<tr>
<th>Study</th>
<th>N (Age in years)</th>
<th>Control variables</th>
<th>Investigated relation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atkin (1975a)</td>
<td>506</td>
<td>None and age, sex, SES, school performance</td>
<td>Age, Sex, SES</td>
</tr>
<tr>
<td>Atkin (1975b)</td>
<td>738</td>
<td>None and age, sex, ethnicity, school performance</td>
<td>Age, Sex</td>
</tr>
<tr>
<td>Robertson &amp; Rossiter (1976)</td>
<td>289</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Galt &amp; White (1976)</td>
<td>41</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Isler et al. (1987)</td>
<td>250</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Buljzen &amp; Valkenburg (2000)</td>
<td>250</td>
<td>None and age, sex</td>
<td>None</td>
</tr>
<tr>
<td>Robertson et al. (1989)</td>
<td>287</td>
<td>Age, demanding behavior, communicating behavior, independent behavior</td>
<td>None</td>
</tr>
<tr>
<td>Ward &amp; Wackman (1972)</td>
<td>109</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*\( r \) = product-moment correlation coefficient; \( pr \) = partial correlation coefficient; \( \beta \) = standardized multiple correlation coefficient.
The correlation studies between advertising exposure and purchase requests show without exception that advertising exposure is positively related to children's purchase requests. The zero-order correlations vary from $r = .18$ (Isler et al., 1987) to $r = .41$ (Atkin, 1975b). In the majority of studies the zero-order correlations were around $r = .30$.

The correlations between purchase requests and parent-child conflict (path $2_{pc}$) were mostly investigated when possible third variables were controlled. These studies yielded partial correlations varying from $pr = .25$ (Atkin, 1975b) to $pr = .72$ (Robertson et al., 1989). Finally, the two studies that investigated the direct relation (path 2) between advertising exposure and parent-child conflict reported relations of $r = .08$ and $r = .20$.

**Experimental Studies**

Two experiments investigated the influence of advertising exposure on purchase requests and parent-child conflict. Stoneman and Brody (1981) demonstrated that exposure to advertising increases the number of children's purchase requests. This study examined the interaction between 36 mothers and their three- to five-year-old preschoolers in the store. First, the mothers and children were shown a cartoon. Half of the mothers and children saw just the cartoon, while the other half saw the cartoon with six commercials for candy and chips edited into it. After exposure to the cartoon, the mothers went shopping with their children. The children who had seen the candy and toy commercials, made approximately 50% more purchase requests than children who had not seen the commercial. Moreover, children who had been exposed to the commercials asked twice as often for the advertised products ($M = 4.4$) as the children who had not been exposed ($M = 1.9$).

Goldberg and Gom (1978) investigated the effect of advertising on parent-child conflict. They showed 231 four- and five-year-olds a television program, either with or without commercials. After exposure to the program, children were asked which product they preferred, a tennis ball or the advertised toy. They were also told that their mother preferred the tennis ball over the advertised toy. Children who had been exposed to the commercial were significantly more often opposed to their mother's wish (45.8%) than children who had not seen the commercial (21.3%).

In the same experiment, Goldberg and Gom (1978) used a second operationalization of conflict. After exposure to the preschoolers' program, children were told a story about a boy who asked his father for the advertised toy, but did not receive it.
Then, the children were presented with pictures representing two hypothetical responses of the boy. The first picture showed a child happily hugging his father, while the second showed a child glumly walking away from his father. The children were asked how they thought the boy in the story would react. The results showed that children who had seen the commercial more often chose the picture of the boy walking away from his father, although the differences between the two experimental groups were not statistically significant.

**Moderator Variables**

The moderating effect of gender has been established in two correlational studies (Atkin, 1975a, 1975b). In both studies the effect of advertising on parent-child conflict held only for boys and not for girls. This moderating influence is consistent with general theories on gender differences in parent-child interactions (e.g., Maccoby, 1990). It has been shown that boys are on average less compliant than girls to the requests and demands of their parents (Cowan & Avants, 1988). Boys also more often rely on forceful or demanding strategies when trying to persuade their parents to comply with them, whereas girls are more likely to rely on tact and polite suggestions (Cowan & Avants, 1988). These gender differences can explain why the relation between advertising exposure and parent-child conflict holds mainly for boys.

The moderating influence of age has also been addressed in the correlational studies by Atkin (1975a, 1975b). In the first study (Atkin, 1975a) no moderating effect was found. In the second study (Atkin, 1975b) the correlation between advertising exposure and parent-child conflict applied only to six- to nine-year-olds and nine- to eleven-year-olds, and not to four- to six-year-olds.

This greater advertising effect on parent-child conflict for older rather than younger children is surprising. After all, research on parent-child interaction has often found that younger children relatively often have difficulty delaying gratifications (Metcalf & Mischel, 1999), a characteristic which more easily results in parent-child conflict. In addition, younger children are generally less able to apply sophisticated persuasion strategies (e.g., negotiation; sweet-talk, white lies) than older children. It has been shown that such strategies usually lead to less parent-child conflict than the persuasion strategies of younger children (e.g., simple requests, whining, tantrums; Kuczynski, Kochanska, Radke-Yarrow, & Gimiuis-Brown, 1987; McNeal, 1992). However, since Atkin (1975b) is as yet the only study that has found developmental differences in advertising-induced parent-child conflict, future
research should reinvestigate possible developmental differences in the relation between advertising exposure and parent-child conflict.

**Empirical Evidence: Unhappiness**

*Definition and Operationalization of Unhappiness*

Unhappiness can occur as a short-term, temporary emotional state, but it can also be a longer term, enduring state of mind. Long-term unhappiness has been investigated in studies on the direct effect of advertising (path 3a), and in studies on the indirect effect of advertising, mediated through materialism (path 3b). In these two types of research, unhappiness has been conceptualized as dissatisfaction with one’s life situation or with oneself (e.g., Richins, 1991). Short-term unhappiness has been investigated in studies into the consequences of parental denial of children’s purchase requests (path 3c). In these studies, unhappiness has been operationalized as crying and being sad or disappointed (Atkin, 1975b; Goldberg & Gorn, 1978).

*Evidence of Path 3a: The Direct Relation Between Advertising Exposure and Unhappiness*

Two types of studies have addressed the direct relation between exposure to advertising and unhappiness. The first type investigated whether people become unhappy because they compare themselves unfavorably with the beautiful world of advertising. This type of research has not been conducted with children. The existing research has focused on the impact of beautiful models in print advertising on the self-perceptions of female teenagers (Martin & Kennedy, 1993), female graduate students (Richins, 1991), and male graduate students (Gulas & McKeage, 2000). These studies have produced mixed results. The experiments by Richins (1991) and Gulas and McKeage (2000) found that exposure to print advertisements containing idealized images of physical attractiveness and financial success negatively affects males’ and females’ self-perceptions. In an experiment among 9- to 18-year-old girls, however, Martin and Kennedy (1993) found no effect for advertising on the self-perception of physical attractiveness. All three studies were restricted to print advertising; therefore, the question whether television advertising negatively affects children’s or teenagers’ self-perception is still open.
The second type of research on the direct relation between advertising and unhappiness has concentrated on the influence of commercials on disappointment with the advertised product after purchase. Only one correlational study has investigated this relation (Robertson et al., 1985). In this survey, among 253 six- to eleven-year-old boys, a small though significant negative relation was found between exposure to advertising and satisfaction with the product ($r = -.06$). However, this finding applied only to the youngest children in the sample.

**Evidence of Path 3a: Does Materialism Lead to Unhappiness?**

One of the hypotheses modeled in Figure 4.1 states that materialism mediates the relation between advertising and unhappiness. Although there is empirical evidence to support the relation between advertising exposure and materialism (path 1), the path between materialism and unhappiness has never been investigated among children. There is, however, evidence for this relation among adults. A meta-analysis on the relation between materialism and life satisfaction has yielded a negative relation of $r = -.25$ (Wright & Larsen, 1993), suggesting that adults who are more materialistic are unhappier than adults who are less materialistic. Although it is conceivable that this finding also applies to children, no empirical evidence exists to confirm this proposition.

**Evidence of Path 3b: Does Product Denial Lead to Unhappiness?**

Two correlational studies have investigated the relation between purchase requests and unhappiness. Atkin (1975b) asked 211 mothers of 3- to 11-year-old children how often their children became unhappy after they had denied a purchase request. He found a significant positive correlation between advertising and unhappiness after denial of requests for cereals ($r = .14$) and toys ($r = .20$). Both correlations remained positive when controlling for age, sex, ethnicity, and school performance. A survey by Robertson et al. (1985) among 253 6- to 11-year-old boys, yielded a smaller, though still significant correlation between advertising exposure and disappointment after denial of a purchase request ($r = .08$).

In Goldberg and Gorn's (1978) experiment, four- and five-year-olds were exposed to a preschoolers' television program. One group of children watched the program with commercials and a second group watched the same program without commercials. After the program, the children were asked how they thought a hypothetical child would react when a request for the advertised product had been
denied. More than half of the children who had been exposed to the commercials thought that the child would be sad, compared to 35% of the control group.

**Discussion**

The main aim of this vote-counting analysis was to evaluate the current state of the empirical research on three unintended advertising effects among children: materialism, parent-child conflict, and unhappiness. The impact of advertising on children is a controversial issue, which often provokes contradictory opinions. A systematic and integrative review of the empirical research on this topic is important, because such a review enables us to determine whether the prevailing claims and assumptions are supported by empirical research. In this discussion, we will first evaluate the validity of each of the different hypotheses. In the final section, we will make some suggestions for future research.

**The Validity of the Hypotheses**

*Advertising enhances materialism.* The majority of the correlational studies presented in Table 4.1 showed coefficients that Cohen (1988) would identify as small to moderate effect sizes. Most of these studies still showed a positive relation between advertising and materialism when the influence of possible third variables, such as age, sex, socio-economic status, and school performance was controlled.

These correlational findings were confirmed by the experimental studies by Greenberg and Brand (1993) and Goldberg and Gorn (1978), which demonstrated that the causal direction points from advertising to materialism and not the other way around. Finally, the causal-correlational study conducted by Moschis and Moore (1982) suggests that the influence of advertising applies only to children who initially scored low on materialism and children from families who do not discuss consumption matters.

Although the results of all types of studies point in the same direction, the existing research on the effects of advertising on materialism is limited. Most research is correlational and does not permit causal conclusions. Although some causal-correlational and experimental studies have been conducted, the evidence yielded by these studies is too scarce to arrive at decisive conclusions about the effect of advertising on materialism. Therefore, although the weight of evidence is in
favor of the hypothesis that advertising makes children materialistic, decisive evidence of a causal relation is still absent.

Advertising causes parent-child conflict. All correlational studies on one or more paths between advertising and parent-child conflict yielded small to moderate positive correlations. These correlational results were confirmed partially by the experiment by Goldberg and Gorn (1978). The two studies that have investigated moderator variables suggest that the relation between advertising exposure and parent-child conflict holds only for children older than six and for boys. However, because of the paucity of studies that have investigated moderator variables, these results can, at most, be regarded as an indication for future research.

The results of the correlational and experimental studies are in agreement with the hypothesis that advertising enhances parent-child conflict. However, the majority of the studies are correlational, and the sole experiment that has been conducted resulted in only a partial confirmation of the hypothesis. Therefore, the scientifically conservative conclusion is that advertising enhances parent-child conflict, but that decisive evidence is still lacking.

Advertising makes children unhappy. Hypotheses on the relation between advertising and unhappiness show that there are four ways by which exposure to advertising can lead to unhappiness: (1) via social comparison, (2) via materialism, (3) by leading to disappointment about the quality of the advertised product, and (4) by leading to disappointment after parental denial of purchase requests.

With regard to the first two hypotheses, there is either a lack of studies that investigate the hypothesis among children (in the case of materialism), or the empirical evidence does not support the hypothesis (in the case of social comparison). However, there is some evidence to support the latter two hypotheses. The only study on the effect of advertising on unhappiness through disappointment about the advertised product yielded a small positive relation. The three studies on the effects of advertising on unhappiness caused by denial of purchase requests suggest a small to moderate effect size.

In summary, the empirical body on advertising exposure and unhappiness is not developed to such an extent that we can draw causal conclusions. However, each of the four hypotheses on the relation between advertising and unhappiness can be used as a viable working hypothesis in future research.
Suggestions for Further Research

Traditionally, most studies on the unintended effects of advertising have focused on the direct relation between the independent variable (advertising exposure) and one of the three dependent variables (materialism, parent-child conflict, and unhappiness). None of these studies has explored the mechanisms underlying the relations between advertising exposure and each of the three dependent variables. Most research investigating the unintended advertising effects is characterized by an input-output orientation, which has neglected the specific ways in which advertising can lead to materialism, parent-child conflict, and unhappiness. Our review has revealed some of these underlying mechanisms (or mediating variables).

Our vote-counting review has yielded a number of working hypotheses for future research. In addition, our analysis identified several moderator variables, such as age, gender, socioeconomic status, and parent-child communication. In most empirical studies, these moderator variables were included on an exploratory basis, without guidance of specific theories on the nature and direction of the moderating influence of these variables. In our view, a choice of moderator variables can only be valuable when a-priori hypotheses are formulated about how and why certain moderator variables affect the relation between advertising exposure and materialism, parent-child conflict, and unhappiness. Although it has not been decisively established how the moderator variables identified in this review influence advertising effects, they may serve as a basis or guideline for future research.

NOTES

1 Greenberg & Brand (1993) have reported $t$-values for the differences between the two experimental groups ($t = 3.1$, $df = 825$, $p < .005$). The correlation size reported in the present article was computed with the formula $r = \sqrt{(R^2 / df)}$; see Rosenthal (1991).

2 Many studies refer to Sheikh and Moleski (1977) to show that advertising enhances parent-child conflict. In our opinion, this study does not provide evidence that advertising causes conflict in the family, because (a) no relation has been reported between exposure to advertising and conflict, and (b) no experimental comparison has been made between children who were or were not exposed to
advertising. Therefore, the study conducted by Sheikh and Moleski (1977) has not been included in our review.

REFERENCES

References marked with an asterisk indicate studies included in the vote-counting analysis.


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