The effects of television advertising on materialism, parent–child conflict, and unhappiness: A review of research

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Abstract

In this article, we introduce a model on 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 was investigated 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. However, support for the hypothesized relation between advertising and unhappiness was not found. The outcome of our vote-counting analysis provided several working hypotheses for future research as well as identified possible moderator variables that should be taken into account in future research.

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1. 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, a policy also adopted by Sweden in 1996.

These restrictions on television advertising directed at children are based on either ethical concerns among parents and policymakers about the unfairness of advertising to children or on beliefs that television advertising has harmful effects on children. Although the possible aversive effects of advertising have been debated since television was introduced, there is still no consensus, however, 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 regarding the negative effects of television advertising and to examine the extent to which these hypotheses are supported by empirical research findings. 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 directed toward children are generally based on two paradigms: the paradigm of the *empowered child* and the paradigm of the *vulnerable child*. In the empowered child paradigm, children are viewed as 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, more than adults, are susceptible to the seductive influences of commercials. Research within the vulnerable child paradigm usually investigates the extent to which advertising is harmful for children and addresses issues such as 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 children’s exposure to advertising.

Several earlier reviews have discussed the unintended effects of advertising (Atkin, 1980; 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 literature is small and heterogeneous, as in the case of the advertising-effects literature (Bushman, 1994; Cooper, 1990). 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. Nonsystematic literature searches can easily lead to biased samples and, as a result, to biased conclusions (Davies, 2000; Johnson & Eagly, 2000).

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 2002. In addition, references from these publications were examined to trace articles, chapters, and unpublished reports that were not recorded in these databases.

1.1. Hypotheses about the relations between advertising, materialism, parent–child conflict, and unhappiness

In the past four decades, several hypotheses regarding the impact of advertising on materialism, parent–child conflict, and unhappiness have been put forward in the literature. For reasons of clarity, we have modeled the hypothesized relations between advertising and these three unintended effects in Fig. 1. The model describes all the advertising-effects hypotheses with regard to materialism, parent–child conflict, and unhappiness that have received research attention.

1.1.1. 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).

1.1.2. 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). Although it is possible that advertising exposure directly influences parent–child conflict, it seems more plausible that this relation between exposure to advertising and parent–child conflict is mediated by children’s purchase requests and parental denial of these requests. According to this mediational hypothesis, advertising (a) leads to an increased number of requests for advertised products on the part of children, which (b) leads to an increased number of product denials (given that not all requests can be granted), which then (c) causes conflict between parent and child. These mediated relations are represented by paths 2a, 2b, and 2c in Fig. 1.

The product denial variable is represented by a dashed square box in Fig. 1. 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. However, none of these studies have actually operationalized and/or assessed product denial as a mediating variable.

1.1.3. 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 3a (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 for the direct advertising–unhappiness relationship 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 these techniques as representations that are not entirely consistent with reality. After the purchase, when 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). For instance, it has been argued that 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).

1.2. Hypotheses about developmental differences in unintended advertising effects

It is generally assumed that younger children are more susceptible to advertising effects than older children are (Gunter & Furnham, 1998; Young, 1990). It has been shown that children in early childhood (ages two to seven) are more vulnerable to persuasive information, because they have less experience and domain-specific knowledge that they can use while processing commercials (Roedder, 1981). They are, therefore, less able to come up with critical thoughts and counterarguments while watching commercials (Brucks, Armstrong, & Goldberg, 1988). As children mature, they develop greater cognitive skills, which result in a better understanding of the persuasive intent of commercials. Consequently, in middle childhood (ages 8 to 12), children become progressively more critical about, and thereby less susceptible to advertising messages.

Although these advertising processing theories suggest that younger children are more susceptible to unintended advertising effects than older children are, no specific hypotheses about developmental differences in advertising-induced materialism and unhappiness have been formulated. However, in the case of parent–child conflict, theories of parent–child interaction do suggest that younger children more often come into conflict with their parents about advertised products than older children do. Various explanations can be provided to support this hypothesis. First, younger children have been shown to make more advertising-induced purchase requests than older children do, which increases the chance of parent–child conflict (Robertson & Rossiter, 1974; Ward & Wackman, 1972; Ward et al., 1977). Second, younger children more often have difficulty delaying gratifications than older children have (Metcalfe & Mischel, 1999). If young children see some item as attractive, they focus all their attention on the enticing aspects of this stimulus and find it very difficult to resist, which may also increase the chance of parent–child conflict.

A final explanation for a stronger effect of advertising on parent–child conflict among younger children is children’s growing ability to apply sophisticated persuasion techniques on their parents. Research has shown that young children quite often ask, whine, and show anger to persuade their parents. Older children, in contrast, tend to use more sophisticated persuasion techniques, such as negotiation, flattery, and white lies (Williams & Burns, 2000). Such sophisticated persuasion strategies have been shown to lead to less parent–child conflict than the persuasion strategies of younger children do (Atkin, 1978; Kuczynski, Kochanska, Radke-Yarrow, & Girnius-Brown, 1987; Mangleburg, 1990; Williams & Burns, 2000).
2. Empirical evidence: Materialism

A total of eight studies examined the direct relation between television advertising and materialism in children (path 1 in Fig. 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 in early and middle childhood.

2.1. 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 4- or 5-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.

2.2. 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 1. The two right-hand columns in Table 1 present the direction and strength of the observed relations. The coefficients (r, pr, β) 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 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.
2.3. 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-min 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 Gorn (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 (or some other factor) and not materialism that caused the children to choose a toy over a friend.

2.4. Moderator variables

With the exception of Atkin (1975b), the majority of studies that investigated developmental differences in the effect of advertising on materialism did not yield significant results (Atkin, 1975a; Moschis & Moore, 1982; Ward & Wackman, 1971; see Table 1). These studies also did not find a moderating effect for sex, SES, or peer communication.

\(^1\) Greenberg and Brand (1993) have reported $t$ values for the differences between the two experimental groups ($t[825] = 3.1, p < .005$). The correlation size reported in the present article was computed with the formula $r = \sqrt{(t^2/t^2 + df)}$; see Rosenthal (1991).
Table 1
Correlational studies on the relation between advertising exposure and materialism

<table>
<thead>
<tr>
<th>Study</th>
<th>Age in years</th>
<th>N</th>
<th>Measures of exposure</th>
<th>Control variables</th>
<th>Moderator variables</th>
<th>Direction of relation</th>
<th>Strength of relation^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward and Wackman (1971)</td>
<td>13–15; 15–18</td>
<td>1094</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>β = −.01 ns</td>
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<tr>
<td>Atkin (1975a)</td>
<td>9–11; 11–13</td>
<td>775</td>
<td>TV viewing frequency</td>
<td>None and age, sex, SES, school performance</td>
<td>0 Age</td>
<td>+ (TV viewing frequency)</td>
<td>r = .24 pr = .18</td>
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<td></td>
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<td></td>
<td>0 Sex</td>
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<td>0 SES</td>
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<td></td>
<td>+ Age</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>+ Sex</td>
<td></td>
<td></td>
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<tr>
<td>Atkin (1975b)</td>
<td>4–6; 6–9; 9–12</td>
<td>738</td>
<td>Saturday morning viewing frequency</td>
<td>None and age, sex, ethnicity, school performance</td>
<td>0 Age</td>
<td>+ (Saturday morning viewing frequency)</td>
<td>r = .25 pr = .10</td>
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<td></td>
<td>0 Sex</td>
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<td>0 SES</td>
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<td>+ Age</td>
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<td></td>
<td></td>
<td></td>
<td>+ Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moschis and Churchill (1978)</td>
<td>12–18</td>
<td>806</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>None</td>
<td>+ (TV viewing frequency)</td>
<td>r = .13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0 (TV viewing frequency)</td>
<td>β = .07 ns</td>
</tr>
<tr>
<td>Churchill and Moschis (1979)</td>
<td>12–18</td>
<td>806</td>
<td>TV viewing frequency</td>
<td>Age, sex, SES, family communication, peer communication, motivations for watching commercials and TV programs, newspaper readership, consumer education</td>
<td>None</td>
<td>+ (TV viewing frequency)</td>
<td>β = .11</td>
</tr>
<tr>
<td>Moschis and Moore (1982)</td>
<td>12–15; 15–18</td>
<td>211</td>
<td>Advertising viewing frequency</td>
<td>None</td>
<td>0 Age</td>
<td>Cross-sectional results: (Advertising viewing frequency)</td>
<td>r = .32</td>
</tr>
</tbody>
</table>
In the causal-correlational study of adolescents by Moschis and Moore (1982), two moderator effects were found: 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 was probably due to 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 could be attributed to the mediating role of parents. A series of studies have shown that parents can reduce or even counteract negative television effects (Nathanson, 1999; Valkenburg, Kremar, Peeters, & Marseille, 1999). Moschis and Moore’s (1982) findings demonstrate that this also holds true for advertising effects on materialism.


Eleven studies have examined one or more causal paths linking advertising to parent–child conflict (see path 2, 2a, 2b, and 2c in Fig. 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 &
All studies on the relation between advertising and parent–child conflict were conducted among children 12 years old or younger.

3.1. Definition and operationalization of parent–child conflict

Parent–child conflict has been operationalized in two ways. In correlational research, children or parents have been 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 has been indicated by children’s negative reactions to parental denial of a purchase request.

3.2. Correlational studies

Eight studies investigated the relationship between advertising exposure and purchase requests (path 2a; 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 2b/c; 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 2. The three right-hand columns of the table represent the coefficients of the relations between exposure and purchase requests (path 2a), between purchase requests and parent–child conflict (path 2b/c), and between advertising exposure and parent–child conflict (path 2), respectively.

The correlational 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 2b/c) were investigated most often 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 \( r = .20 \).

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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 this portion of our review.
Table 2  
Correlational studies on the relation between advertising exposure and parent–child conflict

<table>
<thead>
<tr>
<th>Study</th>
<th>Age in years</th>
<th>N</th>
<th>Control variables</th>
<th>Investigated relation</th>
<th>Advertising exposure–</th>
<th>Purchase requests–</th>
<th>Investigated relation&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Advertising exposure–</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>purchase requests</td>
<td>parent–child conflict</td>
<td></td>
<td>parent–child conflict</td>
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<td></td>
<td></td>
<td></td>
<td>(path 2&lt;sub&gt;a&lt;/sub&gt;)</td>
<td>(path 2&lt;sub&gt;b,c&lt;/sub&gt;)</td>
<td></td>
<td>(path 2)</td>
</tr>
<tr>
<td>Atkin (1975a)</td>
<td>9–11; 11–13</td>
<td>506</td>
<td>None and age, sex, SES, school</td>
<td>Age</td>
<td>$r = .32$</td>
<td>$pr = .27$</td>
<td>$pr = .46$</td>
<td>$r = .20$</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>performance</td>
<td>Sex</td>
<td></td>
<td>No moderator</td>
<td>effects</td>
<td>$pr = .13$</td>
</tr>
<tr>
<td></td>
<td>4–6; 6–9;</td>
<td>738</td>
<td>None and age, sex, ethnicity,</td>
<td>Age</td>
<td>$r = .41$</td>
<td>$pr = .29$</td>
<td>$pr = .25$</td>
<td>$r = .08$</td>
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<td></td>
<td>9–12</td>
<td></td>
<td>school performance</td>
<td>Sex</td>
<td></td>
<td>No moderator</td>
<td>effects</td>
<td>$pr = .10$</td>
</tr>
<tr>
<td>Robertson and</td>
<td>6–11</td>
<td>289</td>
<td>None</td>
<td>None</td>
<td>$r = .24$</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>Rossiter (1976)</td>
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<tr>
<td>Galst and White</td>
<td>4–6</td>
<td>41</td>
<td>None</td>
<td>None</td>
<td>$r = .31$</td>
<td>–</td>
<td>–</td>
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<td>(1976)</td>
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<tr>
<td>Isler et al.</td>
<td>3–11</td>
<td>250</td>
<td>None</td>
<td>None</td>
<td>$r = .18$</td>
<td>–</td>
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<td>(1987)</td>
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<tr>
<td>Buijzen and</td>
<td>7–12</td>
<td>250</td>
<td>None and age, sex</td>
<td>None</td>
<td>$r = .31$, $pr = .29$</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Valkenburg (2000)</td>
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</tr>
<tr>
<td>Robertson et al.</td>
<td>3–10</td>
<td>267</td>
<td>Age, demanding behavior,</td>
<td>None</td>
<td>$\beta = .25$</td>
<td>$\beta = .72$</td>
<td>–</td>
<td>–</td>
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<tr>
<td>(1989)</td>
<td></td>
<td></td>
<td>communicating behavior,</td>
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<td>Ward and Wackman</td>
<td>5–12</td>
<td>109</td>
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<td>$r = .18$</td>
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<td>(1972)</td>
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<sup>a</sup> $r$ = product-moment correlation coefficient; $pr$ = partial correlation coefficient, $\beta$ = standardized multiple correlation coefficient.
3.3. Experimental studies

Two experiments investigated the influence of advertising exposure on purchase requests (path 2a; Stoneman & Brody, 1981) and parent–child conflict (path 2; Goldberg & Gorn, 1978). Stoneman and Brody (1981) demonstrated that exposure to advertising increased the number of children’s purchase requests. This study examined the interaction between 36 mothers and their 3- to 5-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 for the advertised products twice as often ($M=4.4$) as the children who had not been exposed ($M=1.9$).

Goldberg and Gorn (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 Gorn (1978) used a second operationalization of conflict. After exposure to the preschoolers’ program described previously, 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.

3.4. Moderator variables

The moderating influence of age has been addressed in the correlational studies by Atkin (1975a, 1975b). No moderating effect was found in the first study (Atkin, 1975a). In the second study, the correlation between advertising exposure and parent–child conflict applied only to 6- to 9-year-olds and 9- to 11-year-olds, and not to 4- to 6-year-olds. This greater advertising effect on parent–child conflict for older rather than younger children was surprising. After all, research on parent–child interaction has often found that younger children have difficulty delaying gratifications relatively often (Metcalf & Mischel, 1999), and are less able to apply sophisticated persuasion strategies than older children (Kuczynski
et al., 1987), which are both characteristics that easily result in parent–child conflict (McNeal, 1992).

The moderating effect of gender has also 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 rely on forceful or demanding strategies more often 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.

4. Empirical evidence: Unhappiness

4.1. 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).

4.2. 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 in early or middle childhood. The existing research has focused on the impact of beautiful models in print advertising on the self-perceptions of female adolescents (Durkin & Paxton, 2002; Martin & Kennedy, 1993; Stice, Spangler, & Agras, 2001), female graduate students (Richins, 1991), and male graduate students (Gulas & McKeage, 2000).

These studies have produced mixed results. Three experiments (Durkin & Paxton, 2002; Gulas & McKeage, 2000; Richins, 1991) found that exposure to print advertisements containing idealized images of physical attractiveness and financial success negatively affected males’ and females’ self-perceptions. These findings were corroborated in a longitudinal experiment among 13- to 17-year-old girls (Stice et al., 2001), but the
advertising exposure effect held only for girls that initially scored high on perceived pressure to be thin and body dissatisfaction. However, in an experiment among 9- to 18-year-old girls, Martin and Kennedy (1993) did not find an effect for advertising on the self-perception of physical attractiveness. All 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.

### 4.3. Evidence of path 3b: Does materialism lead to unhappiness?

One of the hypotheses modeled in Fig. 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.

### 4.4. Evidence of path 3c: 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 six- to eleven-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, 4- and 5-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.
5. 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 the extent to which 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 further research.

5.1. The validity of the hypotheses

5.1.1. Advertising enhances materialism

The majority of the correlational studies presented in Table 1 showed coefficients that Cohen (1988) would identify as small to moderate effect sizes. Relations between advertising exposure and materialism were established among children in early and middle childhood, as well as adolescents. 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). 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. However, the causal-correlational and experimental studies only investigated adolescents and children in early childhood. There is as yet no evidence for a causal relation among children in middle childhood.

Although most research is correlational and does not permit causal conclusions, the weight of evidence is in favor of the hypothesis that advertising makes children materialistic. The causal-correlational and experimental studies that have been conducted are in support of the hypothesis that the causal direction points from advertising to materialism and not the other way around. Therefore, although more research is needed to arrive at decisive conclusions, our vote-counting analysis clearly suggests that exposure to television advertising stimulates materialistic values in children.

5.1.2. 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. The sole experiment that has been conducted focused exclusively on children in early childhood, and 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.

5.1.3. 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 sadness 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 apply to television advertising (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 research on the advertising–unhappiness relationship is not developed to such an extent that it allows of causal conclusions. Our analysis does suggest, however, that each of the four hypotheses on the advertising–unhappiness relationship that we distinguished can be used as a viable working hypothesis in future research.

5.2. 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. An important aim of our review was to reveal some of these underlying mechanisms (or mediating variables).

Our vote-counting review has yielded a number of working hypotheses for future research, and it 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 moderators 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.

Although further research is needed to arrive at decisive conclusions, our review clearly indicates that advertising aimed at children can have certain undesirable consequences for the family, such as increased parent–child conflict, and materialistic and disappointed children. Even though most Western countries have tightened their rules and regulations on child-directed advertising, the lion’s share of the responsibility of dealing with negative advertising effects is still shouldered by parents, who are usually the first to experience inconvenience as a result of advertising.

This review study suggests that parents are able to counteract undesired effects of advertising by interacting with their children about advertising and consumer matters. However, it is advisable that those working in applied fields, such as marketers and advertisers, also take on part of the responsibility of mitigating negative effects. Responsible advertising aimed at children does not only serve an ethical purpose, but also a commercial one. After all, it is progressively acknowledged among child marketers that parental approval is a necessary condition for successful marketing and advertising towards children (Del Vecchio, 1998; Guber & Berry, 1993; McNeal, 1992, 1999). Parents are eventually the ones who will select and buy the advertised products for their children. It is no surprise, therefore, that the most successful children’s products in the past decades were those that met the approval of parents (McNeal, 1999).

An important way to avoid or reduce negative advertising effects is to prevent advertising being misleading to children. One way to accomplish this is to test a new commercial among children in order to examine whether the product is portrayed accurately and whether the benefits communicated are not overpromised. Another way is to test the commercial among parents to get their opinions about a certain advertising strategy or tactic. Not only can parents indicate how other parents will react to the commercial, but they also have a keen sense of what their children appreciate and understand (McNeal, 1992). In sum, testing marketing and advertising efforts among children and parents can help applied professionals to find ways of making child-directed advertising as effective, responsible, and publicly acceptable as possible.

**References**

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


