Television advertising aimed at children

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CHAPTER 8

THE UNINTENDED EFFECTS OF TELEVISION ADVERTISING: A PARENT-CHILD SURVEY

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Abstract

In a recent review of research, Buijzen and Valkenburg (2002) postulated a conceptual model for the effects of advertising on materialism, parent-child conflict, and unhappiness in children. The present survey study, which was based on a sample of 360 parent-child dyads, was designed to test this conceptual model and to explore potential alternative models. Using structural equation modeling, our findings showed that advertising was positively and directly related to materialism. It was also positively, though indirectly (mediated by advertising-induced purchase requests) related to parent-child conflict, disappointment, and life dissatisfaction. Parent-child consumer communication and parental mediation of advertising were important moderators of the effects of advertising on children's purchase requests and materialism.

Introduction

Since the early 1970s, a growing body of literature has focused on the unintended effects of television advertising on children and adolescents. This research has particularly concentrated on three unintended advertising effects, namely, materialism, parent-child conflict, and unhappiness. A recent review by Buijzen and Valkenburg (2002) attempted to integrate the evidence for these three unintended effects
of advertising, using a conceptual model based on all the hypotheses that have been postulated in recent decades (see Figure 5.1).

The main purpose of this survey study was to test the validity of the conceptual model developed by Buijzen and Valkenburg (2002). Using structural equation modeling, our study investigated to what extent the hypothesized relations in Figure 5.1 are compatible with survey data obtained from a parent-child sample. In addition, we investigated whether—and if so, how—the effects of advertising are moderated by child (age, gender) and family variables (socioeconomic status, parent-child consumer communication).

Hypotheses About the Three Unintended Effects of Advertising

Advertising enhances materialism. Several authors suggest that advertising stimulates materialistic values in children (see path 1 of Figure 5.1; 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 acquiring material possessions (Pollay, 1986; Wulfemeyer & Mueller, 1992).

The advertising-materialism hypothesis has received empirical support. The majority of the correlational studies on the relation between advertising exposure and materialism have yielded small to moderate relations. These correlational findings have been confirmed by two experimental studies (see Buijzen & Valkenburg, 2002, for a review).

Advertising causes parent-child conflict. A second hypothesis is that exposure to advertising leads to parent-child conflict (see path 2; Atkin, 1980; Robertson, 1979). However, although it is possible that advertising exposure directly influences parent-child conflict, it is more plausible that the advertising-conflict 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 by parents), which (c) provokes conflicts between parent and child. This mediated relation is represented by paths 2a, 2b, and 2c in Figure 5.1.
The Unintended Effects of Advertising—A Parent-Child Survey

Figure 5.1: Model for the unintended effects of advertising. The arrows represent the hypotheses with regard to the effect of advertising on materialism, parent-child conflict, and unhappiness that have received research attention. The dashed square box represents a variable that has been investigated but not explicitly operationalized.

The advertising-conflict hypothesis has also been confirmed. 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 an experiment by Goldberg and Gorn (1978; see Buijzen & Valkenburg, 2002).

Advertising makes children unhappy. In the advertising-effects literature, "unhappiness" has been conceptualized in two different ways: as a short-term, temporary emotional state of mind (being disappointed), and as a longer term, enduring cognitive state of mind (being dissatisfied with one's life). Because these types of unhappiness are conceptually different from each other, they are modeled as separate variables in Figure 5.1.

Disappointment. The advertising-disappointment hypothesis assumes that greater exposure to advertising causes children to subject their parents to purchase requests more often. When children do not receive the requested products, they may become disappointed (Atkin 1980; Goldberg & Gorn, 1978). This hypothesis also received only marginal empirical support (see Buijzen & Valkenburg, 2002). Two studies found a small to moderate effect size between advertising exposure and sadness after denial of a purchase request.

Life dissatisfaction. A first advertising-life dissatisfaction hypothesis stems from social-comparison theory (see path 3a; Martin & Kennedy, 1993; Richins,
Advertising is assumed to depict a world full of beautiful people and desirable products. When children watch television advertising and compare their own situation with this idealized world, the discrepancy between the two worlds might cause life dissatisfaction (Atkin, 1980; Richins, 1991). Evidence for this hypothesis is lacking. The sole study on the topic conducted among children did not find that advertising exposure affected girls' satisfaction with themselves and their environment (Martin & Kennedy, 1993).

A second advertising-life dissatisfaction hypothesis is a mediated one. It assumes that advertising exposure (a) leads to materialism, which (b) results in life dissatisfaction, because materialistic people are assumed to be less satisfied with their lives (path 3b). There is evidence for a relation between advertising exposure and materialism (see page 100). However, although the relation between materialism and life dissatisfaction has been established among adults (see Wright & Larsen, 1993, for a meta-analysis), this relation has not been investigated among children.

Research question. Most studies on the unintended effects of advertising have focused on one or more of the direct relations between the independent variable (advertising exposure) and the three dependent variables (materialism, parent-child conflict, unhappiness). The present survey study was designed to test the conceptual model for the unintended effects of advertising as presented in Figure 5.1. Our first research question was the following:

RQ1: To what extent are the relations between advertising exposure, materialism, parent-child conflict, and unhappiness supported by survey data obtained from parent-child dyads?

The Moderating Influence of Child and Family Variables
The review by Builzen and Valkenburg (2002) demonstrated that the three unintended advertising effects are moderated by child variables (age, gender) and family variables (socioeconomic status, parent-child consumer communication). In most previous empirical studies, these moderator variables were included on an exploratory basis, without specific theories on the nature and direction of the moderating influence of these variables. However, the study of the influence of moderator variables is, of course, most valuable when a priori hypotheses are formulated about
how and why certain variables moderate the relation between advertising exposure and materialism, parent-child conflict, and unhappiness.

**Age.** There is as yet no evidence that age moderates the effects of advertising on materialism and unhappiness (Churchill & Moschis, 1979; Goldberg & Gom, 1978; Moschis & Churchill, 1978; Moschis & Moore, 1982). However, age does moderate the relation between advertising and parent-child conflict: Younger children more often come into conflict with their parents about advertised products than older children do (Isler, Popper, & Ward, 1987; Valkenburg & Cantor, 2000). There are several explanations for this moderating effect of age. 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, Wackman, & Wartella, 1977). It has been shown that younger children 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, which enhances the likelihood that they will ask for advertised products (Brucks, Armstrong, & Goldberg, 1988).

A second reason for a stronger effect of advertising on parent-child conflict among younger children is that younger children more often have difficulty delaying gratifications than older children have (Metcalfe & Mischel, 1999). If young children see something as attractive, they focus all their attention on the enticing aspects of this stimulus and find it very difficult to resist, which may increase the chance of parent-child conflict.

Finally, the decrease in advertising-induced parent-child conflict with age may be a result of children's growing ability to apply sophisticated persuasion techniques. Research has shown that young children quite often ask, whine, and show anger in order 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 generally lead to less parent-child conflict than the persuasion strategies of younger children do (Atkin, 1978; Kuczynski, Kochanska, Radke-Yarrow, & Gimius-Brown, 1987; Mangleburg, 1990; Williams & Burns, 2000).

**Gender.** It has been shown that the effect of advertising on parent-child conflict is stronger for boys than for girls (Atkin 1975a, 1975b). Boys are generally more
persistent in their requests for advertised products than girls are (McNeal, 1999; Sheikh & Moleski, 1977; Ward & Wackman, 1972). They more often rely on forceful or demanding strategies when trying to persuade their parents, whereas girls are more likely to rely on tact and polite suggestions (Cowan & Avants, 1988). The subtle persuasion strategies used by girls may decrease the chance of parent-child conflict (Atkin, 1978).

Socioeconomic status. There is as yet no evidence that socioeconomic status is related to advertising-induced materialism and unhappiness. However, there is evidence that low-income children make more advertising-induced purchase requests than high-income children do, which could increase the chance of parent-child conflict in low-income families (Young, 1990). One explanation for this higher advertising-induced purchase request behavior in low-income families is that low-income children watch more television, which may stimulate their advertising-induced purchase requests behavior (Moore & Moschis, 1981). Another explanation is that parents of low-income families less often discuss advertising effects with their children than high-income parents do (Gunter & Furnham, 1998; Robertson, 1979), which may put low-income children at a disadvantage to protect themselves against advertising influences (Donohue & Meyer, 1984).

Parent-child consumer communication. Several studies have shown that family communication processes interact with advertising effects. By discussing consumer matters and advertising content, parents are able to increase their children’s defenses against advertising and to mitigate advertising-induced materialism and purchase requests (Moschis & Churchill, 1978; Moschis & Moore, 1982; Prasad, Rao, & Sheikh, 1978).

Research question. Findings from earlier research give reason to assume that age, gender, socioeconomic status, and parent-child consumer communication affect the relations between (a) advertising exposure and materialism, (b) advertising exposure and purchase requests, (c) purchase requests and parent-child conflict, and (d) purchase requests and disappointment. However, these earlier studies do not agree on the precise nature and the direction of these moderator effects. Since earlier research is too scarce to formulate specific hypotheses, we formulated the following research question:
RQ2: How do age, gender, socioeconomic status, and parent-child consumer communication moderate the hypothesized relations between advertising exposure, materialism, parent-child conflict, and unhappiness?

Method

Sample and Procedure
The results of this study are based on a parent-child dyad survey conducted in February 2002. A parent-child sample was chosen, because some variables in our study (e.g., advertising exposure) are assumed to be more accurately measured among children, while other variables (e.g., socioeconomic status, parental mediation) are more adequately measured among parents.

The children were recruited from five elementary schools in urban and rural districts in the Netherlands. In all, 427 children completed a paper-and-pencil questionnaire, which had been previously tested in a pilot study among 10 children. The questionnaires were administered in the children's regular classrooms by a trained examiner. After completing the questionnaire—which took about 25 minutes—the children were given a parent questionnaire to take home. They were told they would receive a present when they returned the completed questionnaire.

A total of 360 questionnaires (i.e., 84%) were returned. This resulted in a total sample of 360 parent-child dyads with various economic backgrounds. In the sample of parent-child dyads, all educational levels of parents were represented, although most of the parents were relatively well educated: 25% had completed high school, 35% were college graduates, and 28% had a master's degree. The final child sample consisted of 175 boys (48.6%) and 185 girls (51.4%) between the ages of 8 and 12 ($M = 10.0$, $SD = 1.25$). The children were grouped into two age ranges: 8-10 ($n = 224$, $M = 9.17$, $SD = 0.79$) and 11-12 ($n = 136$, $M = 11.31$, $SD = 0.54$). The parent sample consisted of 291 mothers and 61 fathers, and eight parents who did not indicate their gender.

The parent questionnaire was accompanied by a letter asking the parent who spends the most time with the child to fill out the questionnaire. If more than one child in the family had brought home the questionnaire, the parent was asked to complete the questionnaire for each child, with that child in mind. When all questionnaires had been collected, the parents were debriefed about the nature and purpose
of the study via the school newspaper. All the children—including those who had not returned the questionnaire—received a present.

**Measures**

Survey research among children may lead to concerns about the reliability of children's self-reports. To eliminate this potential problem, we measured all variables in this study among both children and parents. Only two scales, which were validated in earlier child surveys (advertising exposure and children's life dissatisfaction) were measured exclusively among children.

**Advertising exposure.** Advertising exposure was measured by presenting the children with 10 commercials that had been broadcast on several television networks during the data collection period. We asked the children to indicate whether they had seen each of the commercials “often,” “sometimes,” or “never.” This method has been demonstrated to be a valid measure of children's television exposure among elementary school children (Vooijs, van der Voort, & Beentjes, 1987). We conducted a principal components analysis with varimax rotation on the 10 commercials. This analysis yielded one factor, which explained 33.1% of the variance. A total score of children's advertising exposure was calculated by averaging the unweighted scores on the 10 commercials. Cronbach's alpha of this scale was $\alpha = .77$ ($M = 2.13$, $SD = 0.41$).

**Materialism.** To ascertain the children's level of materialism, we adopted a scale used by most correlational studies on the relation between advertising and materialism (Churchill & Moschis, 1979; Moschis & Churchill, 1978; Moschis & Moore, 1982; Ward & Wackman, 1971). Because our pilot study had demonstrated that the youngest children in our sample could not deal with items posed as statements, all items were transformed into questions. Examples of questions were: (1) Do you (does your child) think it is important to have a lot of money? (2) Do you (does your child) think it is important to own a lot of things? (3) Would you (your child) like to be able to buy things that cost a lot of money? Children and parents responded to the questions on a four-point scale, ranging from "No, not at all" to "Yes, very much."

A principle components analysis with children’s responses on these five items yielded one factor, explaining 35.7% of the variance. Principle components analysis with parents’ responses yielded a similar one-factor solution, explaining 50.0% of the variance. Materialism scales were constructed by averaging the scores of these
five items (children: $\alpha = .70$, $M = 2.74$, $SD = 0.55$; parents: $\alpha = .75$, $M = 2.29$, $SD = 0.55$). The correlation between the materialism scales measured among children vs. parents was $r = .37$ ($p < .001$).

**Purchase requests.** To measure children’s purchase request behavior, both parents and children were presented with a list of nine products, which were selected to appeal both to boys and girls and to younger and older children (i.e., toys, CDs, school stationery, candies, clothes, computer games, snacks, sports equipment, and money). The children were asked to indicate whether they “often,” “sometimes,” or “never” asked their parents for each product. Parents were asked the same questions about their children’s request behavior. Children’s and parents’ responses proved to be highly consistent. Principle components analyses on children’s and parents’ responses showed a similar one-factor solution, explaining 23.5% of the variance in children’s responses and 25.4% of the variance in parents’ responses. The total purchase-request variable was constructed by averaging the scores on the nine items (children: Cronbach’s $\alpha = .59$, $M = 1.76$, $SD = 0.33$; parents: $\alpha = .69$, $M = 1.69$, $SD = 0.33$). The correlation between the two purchase request measures was $r = .40$ ($p < .001$).

**Product denial.** Both parents and children were asked to indicate on a four-point scale how often parents denied a purchase request for each of four products (toys, candy, school stationery, clothes). Again, children’s and parents’ responses proved to be highly consistent. Principle components analyses yielded a similar one-factor structure, explaining 44.6% of the variance in children’s responses and 48.8% of the variance in parents’ responses. Total product denial scale scores were constructed by averaging the scores on the four items (children: Cronbach’s $\alpha = .57$, $M = 2.29$, $SD = 0.60$; parents: $\alpha = .65$, $M = 2.24$, $SD = 0.57$). Correlation between the two measures was $r = .26$ ($p < .001$).

**Parent-child conflict.** Parents and children were asked to indicate on a four-point scale how often they had a conflict after denial of a purchase request for each of four products (toys, candy, school stationery, clothes). Principle components analyses yielded one factor that explained 45.0% of the variance in children’s responses and 52.5% of the variance in parents’ responses. Total product denial scale scores were constructed by averaging the scores on the four items (children: Cronbach’s $\alpha = .58$, $M = 1.17$, $SD = 0.29$; parents: $\alpha = .69$, $M = 1.18$, $SD = 0.30$). The correlation between the child and parent measures was relatively low, but still significant ($r = .11$, $p < .05$).
Unhappiness: Disappointment. Disappointment was measured by asking both children and parents how often the children felt disappointed after denial of a request for toys, candy, school stationery, and clothes. In both samples, principle components analyses yielded one factor, explaining 35.4% of the variance in children's responses and 48.6% of the variance in parental responses. Separate scales were constructed for parents (Cronbach's α = .65, M = 1.84, SD = 0.50) and children (α = .51, M = 1.69, SD = 0.46). The correlation between the disappointment measures among children and among parents was r = .21 (p < .001).

Unhappiness: Life dissatisfaction. To determine children's life dissatisfaction, we adapted the Student Life Satisfaction Scale developed by Huebner (1994), which has been proved to yield reliable results among 8- to 12-year-olds. Children were asked to indicate on a four-point scale how happy they were about their life, home, parents, friends, class, school, and themselves. Principle components analysis yielded one factor, explaining 43.2% of the variance. A total life-dissatisfaction score was constructed by averaging the scores on the eight items (Cronbach's α = .80, M = 1.63, SD = 0.45).

Moderator Variables
We identified two child variables (age, gender) and three family variables (socioeconomic status, consumer-related communication, advertising-related communication) as possible moderator variables. The three family variables were recoded into dichotomous variables by means of mean splits.

Socioeconomic status. To determine the family's socioeconomic status, parents were asked to indicate the family income on an eight-point scale. These responses were recoded into low-income families (n = 177, M = 5.06, SD = 1.33) and high-income families (n = 183, M = 7.39, SD = 0.66).

Consumer-related communication. Most studies investigating consumer communication (e.g., Carlson & Grossbart, 1988; Moschis & Moore, 1979) used a scale based on Chaffee, McLeod, and Atkin's (1971) Family Communication Patterns (FCP) scale. However, because the reliabilities of these adapted scales were usually low and some items were outdated, we developed a new scale, based on the concept-oriented items of the FCP scale. Our list of seven items measuring consumer-related communication on a four-point scale included such questions as (1) How often do you and your child discuss the advantages and disadvantages of
products? and (2) How often do you encourage your child to give his/her opinion on certain products or brands?

Principle components analysis on these seven items measuring parent-child consumer communication yielded one factor, explaining 44.7% of the variance. A total consumer-communication score was constructed by averaging the scores on the seven items (Cronbach’s α = .79, M = 2.53, SD = 0.52). We distinguished parent-child dyads low on consumer communication (n = 223, M = 2.20, SD = 0.29) from parent-child dyads high on consumer communication (n = 135, M = 3.07, SD = 0.33).

Advertising-related communication. Advertising-related communication involves the methods parents use to mediate children’s advertising viewing. In order to determine the family’s level of advertising-related communication, we adapted a scale developed by Valkenburg, Krcmar, Peeters, and Marseille (1999). We used 10 items that dealt with the frequency with which parents used various advertising mediation strategies. The final list included such items as (1) How often do you explain that the purpose of advertising is to sell products? (2) How often do you point out that advertising does not always tell the truth? and (3) How often do you tell your child to turn off the TV when he/she is watching advertising? A total advertising-communication score was constructed by averaging the scores on the 10 items (Cronbach’s α = .80, M = 1.54, SD = 0.33). We distinguished between low advertising mediation (n = 208, M = 1.31, SD = 0.17) and high advertising mediation (n = 152, M = 1.84, SD = 0.23).

Results

Our first research question addressed the relations between advertising exposure, materialism, parent-child conflict, disappointment, and life dissatisfaction. To answer this question, we first investigated the zero-order correlations between the variables in the model presented in Figure 5.1 (see Table 5.1). The upper-right triangle in Table 5.1 presents the correlations between variables measured in the child sample. The lower-left triangle depicts the correlations between variables measured in the parent sample.

As Table 5.1 shows, the correlations among the variables measured among children and those measured among parents exhibited highly similar patterns.
The Unintended Effects of Advertising—A Parent-Child Survey

Table 5.1: Zero-order Correlations Between All Independent, Mediating, and Dependent Variables

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<td>1. Advertising exposure</td>
<td>-</td>
<td>.22&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.19&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.06</td>
<td>.02</td>
<td>-.03</td>
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<td>2. Materialism</td>
<td>.11*</td>
<td>-</td>
<td>.37&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.03</td>
<td>.30&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.22&lt;sup&gt;c&lt;/sup&gt;</td>
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<td>3. Purchase requests</td>
<td>.13*</td>
<td>-.13&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-</td>
<td>-.19&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.30&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.34&lt;sup&gt;c&lt;/sup&gt;</td>
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<td>4. Product denial</td>
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<td>-.03</td>
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<td>-.03</td>
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<td>5. Parent-child conflict</td>
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<td>.28&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.12&lt;sup&gt;*&lt;/sup&gt;</td>
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<td>6. Disappointment</td>
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<td>7. Life dissatisfaction</td>
<td>.09&lt;sup&gt;*&lt;/sup&gt;</td>
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Note. The upper-right triangle presents the correlations between variables measured in the child sample, the lower-left triangle depicts the correlations between variables measured in the parent sample. Correlations with variables measured only among children (advertising exposure, life dissatisfaction) were computed using the child responses.

虽然有些关系略有差异，但这些差异仅限于依赖变量之间的关系（即，父母-子女冲突和产品拒绝，以及失望和生活满意度）。作为最重要的关系——即，独立变量和依赖变量之间没有实质性的差异——我们在子样本和父母样本中对这些相关性进行了调查。我们因此认为，基于这些结果在儿童研究中保留这些分析是合理的。

第5.1节显示，广告接触显著地正相关于物质主义和购买请求，但不相关于生活满意度和父母-子女冲突。对于中介变量，我们发现儿童的购买请求与产品拒绝不相关。产品拒绝，反过来，也不是父母-子女冲突或失望的原因。该变量的非显著关系表明，与期望相反，这个变量没有在广告接触与父母-子女冲突的关系中作为中介变量，也没有在广告接触与失望的关系中作为中介变量。
Testing the Model

To investigate the hypothesized model we used the EQS program for structural equation modeling (Bentler, 1989). The path analysis was carried out in two steps. First, we investigated whether the initial model in Figure 5.1 conformed with the data. This model would be supported if the $\chi^2$ was not significant, and the Comparative Fit Index (CFI) was higher than .90. In case the model would have to be rejected, we undertook a second step in the analysis to determine what causal paths should be added to or removed from the initial model.

We based our path analysis on all the independent, mediating, and dependent variables in Figure 5.1. However, based on the nonsignificant relations found for product denial, we decided to remove this variable from the model. As a result, we tested a model with six variables, namely, one independent variable (advertising exposure), one mediating variable (purchase requests), and four dependent variables (materialism, parent-child conflict, disappointment, life dissatisfaction). This model is represented by the solid arrows in Figure 5.2.

The initially hypothesized model had to be rejected ($\chi^2 (8, N = 360) = 111.59, p < .001, CFI = .50$). Both the Lagrange Multiplier Test (Bentler, 1989) and the report of the largest standardized residuals indicated that the model could be improved with four additional causal paths: (a) from materialism to purchase requests ($\beta = .35, p < .001$), (b) from materialism to parent-child conflict ($\beta = .19, p < .001$), (c) from disappointment to parent-child conflict ($\beta = .31, p < .001$), and (d) from disappointment to life dissatisfaction ($\beta = .11, p < .05$). The Wald Test for dropping parameters (Bentler, 1989) indicated that the model could be improved by dropping three paths, namely, (a) that between advertising exposure and parent-child conflict, (b) that between advertising exposure and life dissatisfaction, and (c) that between materialism and life dissatisfaction.

The resulting model fit the data very well, with $\chi^2(7, N = 360) = 13.03, p = .07, CFI = .97$, and was therefore accepted as an adequate description of the data. The model is presented in Figure 5.2. The broken arrows in Figure 5.2 represent the relations that were added to the initially hypothesized model. The coefficients in the Figure represent standardized beta weights.

Our structural equation modeling indicated that of the seven causal paths specified in the hypothesized model, four were found to be statistically significant.
The Unintended Effects of Advertising—A Parent-Child Survey

Figure 5.2: Observed path-analytic model for the unintended effects of advertising. Solid arrows indicate initially hypothesized relations. Broken arrows indicate relations that were added to the final model.

*p < .05.  *p < .01.  *p < .001.

These paths represented the relations between (a) advertising exposure and materialism (β = .22, p < .001), (b) advertising exposure and purchase requests (β = .11, p < .05), (c) purchase requests and parent-child conflict (β = .12, p < .05), and (d) purchase requests and disappointment (β = .34, p < .001). Three initially hypothesized relations turned out to be nonsignificant in the final model: (a) the direct relation between advertising exposure and parent-child conflict; (b) the relation between advertising exposure and life dissatisfaction, and (c) the relation between materialism and life dissatisfaction.

Moderator Analyses
Our second research question addressed the moderating effect of age, gender, socioeconomic status, and parent-child consumer communication. To investigate these effects, we tested whether the relations between advertising exposure and the dependent variables found for the whole sample also held for different subgroups. These subgroups were defined in terms of age, gender, socioeconomic status, consumer communication, and advertising communication.

In our subgroup analyses, we concentrated on the four main relations between the independent and dependent variables in the final model. We investigated the
Table 5.2: The Moderating Influence of Child and Family Variables on Four Unintended Advertising Effects

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<td>&lt;10 (n = 224)</td>
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<tr>
<td>Boys (n = 175)</td>
<td></td>
<td>.23</td>
<td>.14</td>
<td>.17</td>
<td>.41*</td>
</tr>
<tr>
<td>Girls (n = 185)</td>
<td></td>
<td>.18</td>
<td>.09</td>
<td>.07</td>
<td>.30*</td>
</tr>
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<td></td>
<td>SES</td>
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<tr>
<td>Low (n = 177)</td>
<td></td>
<td>.26</td>
<td>.06</td>
<td>.23*</td>
<td>.39</td>
</tr>
<tr>
<td>High (n = 183)</td>
<td></td>
<td>.16</td>
<td>.13</td>
<td>.04*</td>
<td>.30</td>
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<tr>
<td></td>
<td>Consumer communication</td>
<td></td>
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<tr>
<td>Low (n = 223)</td>
<td></td>
<td>.27</td>
<td>.28*</td>
<td>.37</td>
<td>.36</td>
</tr>
<tr>
<td>High (n = 135)</td>
<td></td>
<td>.14</td>
<td>.05*</td>
<td>.23</td>
<td>.37</td>
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<tr>
<td></td>
<td>Advertising communication</td>
<td></td>
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<tr>
<td>Low (n = 208)</td>
<td></td>
<td>.30*</td>
<td>.18</td>
<td>.09</td>
<td>.30</td>
</tr>
<tr>
<td>High (n = 152)</td>
<td></td>
<td>.13*</td>
<td>.02</td>
<td>.13</td>
<td>.40</td>
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</table>

Note. All data are regression coefficients. *Values with different subscripts are significantly different from each other at least at p < .05.

relations between (a) advertising exposure and materialism, (b) advertising exposure and purchase requests, (c) purchase requests and parent-child conflict, and (d) purchase requests and disappointment. Differences between correlation coefficients in the different subgroups were computed with the formula $z_{obs} = z_{1} - z_{2} / \sqrt{(1/N_{1} - 3) + (1/N_{2} - 3)}$; see McCall (1986). The results of the moderator analyses for the four relations are shown in Table 5.2.

As Table 5.2 shows, three of the four investigated relations (i.e., between advertising exposure and purchase requests, between purchase request and parent-child conflict, and between purchase requests and disappointment) were stronger for younger children. However, most of these differences only approached significance, probably due to the relatively small sample sizes of the subgroups.
As for gender, our results showed that all four relations were stronger for boys than for girls, suggesting that boys are more susceptible to some unintended effects than girls are. This particularly pertained to the relations between purchase requests and disappointment, and between purchase requests and parent-child conflict.

Socioeconomic status turned out to be a significant moderator for the relation between purchase requests and parent-child conflict. In low-income families, children's purchase requests were significantly more likely to result in parent-child conflict. The relation between advertising exposure and materialism followed the same pattern. As anticipated in the introduction, there are two possible explanations for the moderating influence of socioeconomic status on advertising effects, namely (a) the relatively high television exposure of low-income families and (b) the relatively low consumer communication in these families.

To check the validity of these explanations, we investigated correlations between socioeconomic status, advertising exposure, and consumer communication. Socioeconomic status was significantly related only to advertising exposure ($r = - .16, p < .01$) and not to consumer communication, suggesting that it is the relatively high level of television exposure (and not the lack of consumer communication) in low-income families that makes low-income children more susceptible to advertising effects.

Finally, consumer- and advertising-related communication significantly moderated the relations between advertising exposure and materialism, and between advertising exposure and purchase requests. In addition, the relation between purchase request and parent-child conflict was higher in families that pay little attention to consumer communication.

**Discussion**

A first aim of this study was to investigate whether the hypothesized relations in the model for the unintended effects of advertising were compatible with survey data obtained from a parent-child sample. Our second aim was to explore whether—and if so, how—these relations were moderated by child and family variables.
Advertising Enhances Materialism
The hypothesis that exposure to advertising stimulates materialistic values in children was supported by our results. Children who frequently watched television commercials held stronger materialistic values than their peers who less often watched commercials. The advertising-materialism relation was just as strong for younger as for older children. This result is in line with developmental theories of materialism, which assume that both younger and older children are sensitive to the desire-provoking messages in television advertising (Moschis & Moore 1982; Roedder-John, 1999; Sheikh, Prasad, & Rao, 1974; Young, 1990).

Our study showed that the effect of advertising on materialism was significantly weaker for children in families that often discuss consumer and advertising matters. This finding is in agreement with a series of adult-mediation studies that have shown that instructive or evaluative parental mediation can mitigate, channel, or counteract undesirable media effects (see Nathanson, 1999; Valkenburg et al., 1999).

Advertising Causes Parent-Child Conflict
Our results demonstrated that advertising is moderately related to parent-child conflict. However, as anticipated, this relation is not direct but is mediated by children's purchase requests. In accordance with the mediated advertising-conflict hypothesis, our results showed that (a) advertising exposure leads to an increased number of purchase requests, which (b) enhances parent-child conflict.

The relation between advertising exposure and purchase requests was moderated by the child's age. We found a stronger advertising-purchase request relation for younger children than for older children, which is in line with earlier evidence showing younger children's greater susceptibility to advertising effects (see Young, 1990). The advertising-purchase request relation was also moderated by consumer- and advertising-related family communication. Children in families low on advertising and consumer communication made more advertising-induced purchase requests. This result confirms earlier evidence that parents can discourage advertising-induced request behavior by teaching children consumer skills (Donohue & Meyer, 1984; Moschis & Churchill, 1978).

Our results showed that the relation between children's purchase requests and parent-child conflict was stronger for younger children and for boys. These findings corroborate research showing that younger children and boys use less
subtle and less sophisticated persuasion strategies than older children and girls do, thus reducing the chance of parent-child conflict (Atkin, 1978; Mangleburg, 1990; Williams & Burns, 2000).

Finally, we found that the relation between purchase requests and parent-child conflict was stronger in low-income families than in high-income families. This means that a request made by a child in a low-income family more easily results in parent-child conflict than a request made by a child in a high-income family. An explanation might be that low-income parents employ less sophisticated strategies for conflict resolution. It has been demonstrated, for instance, that parents in low-income families more often use coercive methods to deal with family conflicts than parents in high-income families do (Bardi & Borgognini-Tarli, 2001).

Advertising Leads to Disappointment and Life Dissatisfaction
Our study did not find a direct relation between advertising and disappointment, nor between advertising and life dissatisfaction. Therefore, our results disconfirm the hypothesis that advertising makes children unhappy because it creates unrealistic expectations about themselves and their environment. However, we did find an indirect relation between advertising, disappointment, and life dissatisfaction. Our structural equation modeling showed that advertising exposure (a) led to an increased number of purchase requests, which (b) led to an increased level of disappointment (because not all advertising-induced requests can be granted), which (c) negatively affected children's satisfaction about themselves and their environment.

Conclusion
This study suggests that television advertising has three unintended effects. One of these—the relation between advertising exposure and materialism—is direct. The other two—between advertising and parent-child conflict, and between advertising and unhappiness—are indirect. It is important to realize, though, that parents are able to mitigate or even counteract most of the undesirable advertising effects found in the present study. Our findings showed that the effects of advertising on children's purchase requests, materialism, as well as disappointment can be reduced by parental mediation of advertising (e.g., explaining the function of advertising and commenting on commercials), and by explaining consumer matters (e.g., teaching the child consumer skills and talking about purchase decisions).
REFERENCES


The Unintended Effects of Advertising—A Parent-Child Survey


