Observing Purchase-Related Parent-Child Interactions in Retail Environments:
A Developmental and Socialization Perspective

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Abstract

In a quantitative observation study, we unobtrusively examined the interactions of zero-to 12-year-old children and their parents ($N = 269$ dyads) during supermarket and toy store visits. The aims of the study were to determine (a) the development of purchase-related interactions (i.e., children’s purchase influence attempts, their coercive behavior, and parent-initiated interactions), and (b) the relative effects of different socialization variables (e.g., television viewing, family communication) on these interactions. Results show that the development of children’s purchase influence attempts and their coercive behavior followed an inverted-U pattern. Purchase influence attempts increased until the age of 6, and started to decline after the age of 8. Children's coercive behavior reached a peak between the ages of 3 and 5. With increasing age, children were more likely to be involved in the purchase decision making process, and parent-child interactions more often resulted in a product purchase. Finally, children's television viewing was the most important predictor of their purchase influence attempts.
Observing Purchase-Related Parent-Child Interactions in Retail Environments: A Developmental and Socialization Perspective

Since the 1960s, manufacturers, marketers, and advertisers have become increasingly interested in children’s consumer behavior (McNeal, 1992). Children are considered an important target group for several reasons. First, they have considerable amounts of money to spend on their own needs and wishes. In addition, they have a substantial and increasing influence on family purchase decisions: They not only give direction to many daily household purchases, such as snacks and breakfast products, but they also have a say in their parents’ choice of home computer, hobby items, and their holiday destination (McNeal, 1999).

It is, generally, assumed that children's consumer learning largely takes place through the interaction with their parents in retail environments (Carlson & Grossbart, 1988; Peracchio, 1992). Remarkably, despite the increasing interest in children's consumer behavior, only a handful of studies have investigated purchase-related interactions between children and parents (Atkin, 1978; Brody, Stoneman, Lane, & Sanders, 1981; Galst & White, 1976; Holden, 1983; Isler, Popper, & Ward, 1987; Rust, 1993a, 1993b). There are a number of reasons to expand on this line of research. First, these earlier studies have generally focused on one particular age group, most often preschoolers (Brody et al., 1981; Galst & White, 1976; Holden, 1983). However, theories of consumer development assume that the development of children’s consumer behavior starts in infancy and lasts until adolescence (John, 1999; Valkenburg & Cantor, 2001). Because significant changes take place during this period, there is a need for research that incorporates a developmental perspective on purchase-related parent-child interactions.

Another reason to extend earlier research is that previous studies mainly provided descriptive observations of parent-child interactions, without taking into
account the explanatory role of background influences such as the media and the parents. Although two studies did include the role of television advertising (Brody et al., 1981; Galst & White, 1976), consumer socialization theories suggest that in order to gain a full understanding of purchase-related parent-child interaction, it is necessary to investigate the relative importance of different socialization variables (Atkin, 1982; Carlson & Grossbart, 1988; Moschis, 1987). A final reason to expand earlier research is that most studies were conducted in the 1970s and 1980s. Because the past two decades have witnessed significant societal changes in children’s commercial and family environment (e.g., Gunter & Furnham, 1998; McNeal, 1999), it is uncertain whether the results found in the 1970s and 1980s still hold for the present generation of children.

The aim of the present study is to investigate parent-child purchase-related interactions from a developmental and a socialization perspective. This study is the first to adopt and combine these two perspectives in studying parent-child interactions about consumer issues. Both perspectives are investigated by observing parent-child interactions in two common retail environments for children: the supermarket and the toy store. The developmental perspective is investigated by comparing the interaction patterns of parents and children in four different age groups, 0-2 years, 3-5 year, 6-8 years, and 9-13 years. The socialization perspective is investigated by assessing the relative influence of several different socialization variables on the parent-child interactions in these retail environments.

We investigate three interaction variables that are important in theories of consumer development (e.g., John, 1999; Valkenburg & Cantor, 2001), consumer socialization (e.g., Moschis, 1987), and parent-child interaction (Cowan & Avants, 1988; Mangleburg, 1990): children's influence attempts, their coercive behavior, and parent-initiated interactions. In addition, we also investigate the outcome of these interactions; that is, whether or not the interaction results in product purchase. As
indicated above, theories of children’s consumer development and socialization assume that purchase-related interactions and outcomes differ greatly between children in different age groups and are influenced by a number of socializing forces, such as media use and family communication patterns. In order to formulate specific hypotheses on the developmental patterns of and influences on these interaction variables, we first review the developmental and socialization literatures (John, 1999; Moschis, 1987; Valkenburg & Cantor, 2001).

Development of Purchase-Related Parent-Child Interactions

Because theories of consumer development indicate that children acquire most aspects of consumer behavior between infancy and early adolescence, we discuss the development of each interaction variable across four stages in childhood: infancy and toddlerhood (ages 0-2), preschool (ages 3-5), early elementary school (ages 6-8), and late elementary school (ages 9-12) (Valkenburg & Cantor, 2001).

Children's purchase influence attempts. Children's purchase influence attempts have been defined as all attempts by children to express a desire, including simple requesting, pointing, naming a product, or grabbing it from the shelf (Brody et al., 1981; Galst & White, 1976; Holden, 1983). From the moment of their birth, children have particular preferences for tastes, colors, and sounds. From this moment, they also begin to communicate their wants and preferences to their parents (McNeal & Yeh, 1993; Valkenburg & Cantor, 2001). In general, this early purchase influence behavior is still primarily reactive and not very intentional (Valkenburg & Cantor, 2001).

By the time children are 3, they begin to express their wants and preferences more actively (Rust, 1993a, 1993b). They acquire better verbal skills and discover that they have their own will and begin to experiment with this. Children now begin to ask for products that they like. This happens particularly when the products are in their direct vicinity, for example in the retail store. Preschoolers often have difficulty
delaying gratifications of their wants and needs (Dawson & Balfour, 1983; Metcalf & Mischel, 1999). If they see some item as attractive, they focus all their attention on the enticing aspects of the stimulus and find it very difficult to resist (Dawson & Balfour, 1983; Metcalf & Mischel, 1999).

During the early and late elementary school years (ages 6-12), children become more and more able to delay gratification. In addition, they are increasingly independent from their parents. From the age of 9 or 10, peers gradually become more important, and most children gain more financial independence as they start to receive a weekly or monthly allowance (Gunter & Furnham, 1998; McNeal, 1992). At this age, children start to visit different types of stores and make purchases by themselves (McNeal, 1992). Because of this growing independence, the number of purchase influence attempts is likely to decrease during the late elementary school years. Therefore, our first hypothesis predicts that the number of children's purchase influence attempts follows an inverted-U pattern:

H1: Children's purchase influence attempts increase until the age of 9 and then start to decrease again.

Children's coercive behavior. In some cases children's influence attempts become forceful or persistent, for instance when the parent has declined or ignored a previous influence attempt (John, 1999; Valkenburg & Cantor, 2001). The extent to which children display such coercive behavior is largely determined by their abilities to delay gratification and to use sophisticated influence and negotiation strategies (Valkenburg & Cantor, 2001). Preschoolers' influence attempts mostly involve relatively simple and direct strategies, such as asking, demanding, nagging, or showing anger (John, 1999). Because of these frequent and often coercive influence methods, preschoolers' purchase influence attempts often result in conflicts between parents and children (Valkenburg & Cantor, 2001).
According to parents, such coercive behavior and parent-child conflicts decline between the ages of 5 and 6 (Valkenburg & Cantor, 2001). This decline can be attributed to elementary school children’s growing ability to use control strategies to resist temptation and delay gratification (Dawson & Balfour, 1983; Metcalf & Mischel, 1999). In addition, as of this age, children are increasingly able to negotiate and use more sophisticated persuasion strategies (Kuczynski & Kochanska, 1990; Kuczynski, Kochanska, Radke Yarrow, & Girnius Brown, 1987; Palan & Wilkes, 1997; Rust, 1993a). Finally, late elementary school children have learned from experience the most effective ways to approach and respond to their parents (Palan & Wilkes, 1997). In other words, we expect that children's coercive behavior follows an inverted-U pattern that is comparable to their purchase influence curve, but which declines at an earlier stage in childhood:

H2: Children's coercive behavior increases until the age of 6 and then starts to decrease again.

*Parent-initiated interactions.* In a parent-initiated interaction the parent invites the child to take part in the purchase decision-making process. Parents may, for instance, ask children which product they prefer, invite them to make a product selection, or suggest to purchase a certain product (Atkin, 1978). Parents may initiate an interaction with the purpose to entertain or distract the child during the store visit, but may also seriously value their child's opinion and take into account the wants and preferences of their children when shopping (Mangleburg, 1990; McNeal, 1999; Williams & Burns, 2000). This phenomenon of parents seriously considering their children's desires, known in the literature as *passive dictation*, has been shown to increase as children mature (Caron & Ward, 1975; Isler et al., 1987). We therefore investigate the following hypothesis:

H3: Parent-initiated interactions increase as children mature.
Outcome of the interaction: product purchase. Finally, each purchase-related parent-child interaction may or may not result in purchase of the product. Although there is little academic knowledge on the outcomes of different types of interactions, it is conceivable that the success of the interaction depends on the initiator and style of the interaction. First, parent-initiated interactions are more likely to result in product purchase, because parents themselves most often make the final purchase decision (Atkin, 1978; Szybillo & Sosanie, 1977). Second, the style of children's purchase influence attempts may also determine the outcome of the interaction. Finally, because parent-initiated interactions as well as children's influence styles change as children mature, we expect that the outcomes of these interactions will also vary by age. Because earlier research is too scarce to formulate specific hypotheses, we investigate the following research question:

RQ1: To what extent do different interactions (i.e., children's purchase influence attempts, coercive behavior, and parent-initiated interactions) lead to product purchase among children in various age groups?

Socialization of Purchase-Related Interactions

Theories of consumer socialization (e.g., John, 1999; Moschis, 1987) assume that--apart from age--several background variables may determine parent-child interactions. These variables include children’s television advertising exposure, gender, family income, and general family communication patterns (John, 1999; Moschis, 1987; Moschis & Churchill, 1978).

Children’s television advertising exposure. Television advertising is an important determinant of purchase-related interactions. Especially for young children, television is an important source of information about products and purchase-related interactions (Buijzen & Valkenburg, 2000). Advertising has been shown to affect children in several ways: Commercials enhance children’s awareness of products and
brands (Derscheid, Kwon, & Fang, 1996; Fischer, Schwartz, Richards, Goldstein, & Rojas, 1991; Macklin, 1994), their preferences for products and brands (Derbaix & Bree, 1997; Macklin, 1994; E. S. Moore & Lutz, 2000), and the extent to which they are persuaded to purchase or request advertised products or brands (Atkin, 1975; Buijzen & Valkenburg, 2000). We therefore expect that:

H4: Children who frequently watch television make more purchase influence attempts than children who less frequently watch television.

Children’s gender. Theories on gender differences in parent-child interactions (e.g., Cowan & Avants, 1988; Maccoby, 1990) indicate that boys and girls do not differ in their number of influence attempts, but do differ in their influence style. It has been shown that boys are generally more persistent than girls (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, polite suggestions, and white lies (Cowan & Avants, 1988). In addition, research has shown that parents are more likely to involve girls in the decision-making process (Mangleburg, 1990). We therefore investigate the following hypotheses:

H5a: Boys display coercive behavior more often than girls.

H5b: Parent-initiated interactions occur more often with girls than with boys.

Family income. Most scholars assume that socio-economic status affects children’s awareness of their consumer environment and influences their opportunities for consumption (Gunter & Furnham, 1998). However, there is less consensus on how family income affects parent-child interaction. Some studies suggest that in high-income families, parents and children are more inclined to interact about purchase decision making, because they have a greater exposure to the economic world than low-income families (R. L. Moore & Moschis, 1979; Moschis & Churchill, 1978; Ward,
Other studies, in contrast, have found that children from low-income families make more purchase requests because they are more often exposed and more susceptible to advertising than high-income children (Gunter & Furnham, 1998; Young, 1990). Based on this mixed evidence, we formulate the following research question:

RQ2: How does family income affect the various parent-child interaction variables?

Family communication patterns. Finally, it has been argued that general family communication styles are also related to parent-child interactions about purchases (Carlson & Grossbart, 1988). In the literature, two types of family communication patterns are distinguished: (a) concept-oriented communication, which stresses negotiation, individual ideas, and opinions; and (b) socio-oriented communication, which emphasizes obedience and harmony (Carlson & Grossbart, 1988; Chaffee, McLeod, & Atkin, 1971; Moschis & Moore, 1979). Earlier research has shown that children and adolescents from families with a high concept-oriented communication style make advertising-induced purchase requests less often than children from socio-oriented families (Buijzen & Valkenburg, 2005). Moreover, concept-oriented parents are more likely to involve their children in the purchase decision making process (Carlson & Grossbart, 1988). We therefore hypothesize that:

H6a: Children in socio-oriented families make more influence attempts than children in concept-oriented families.

H6b: Parent-initiated interactions occur in concept-oriented families more often than in socio-oriented families.

Method

The aim of our observation was to tap children’s and parents’ behaviors and interactions as they occur in everyday life. To this end, we unobtrusively coded parent-child interactions in supermarkets and toy stores. Data collection consisted of three
components: (1) direct observation in the retail environment, (2) a survey among parents after the observed store visit, and (3) systematic coding of the observations.

Sample

The observation study was conducted in 10 supermarkets and five toy stores of varying sizes, located in inner city, suburban, and rural areas in the Netherlands. A total of 269 parent-child dyads were observed, 149 in the supermarkets and 120 in the toy stores. The children ranged in age from 0 to 13 years (52% boys). Children were grouped into four age ranges: 0-2 years ($n = 40$), 3-5 years ($n = 100$), 6-8 years ($n = 60$), and 9-13 years ($n = 69$). Most of the parents were mothers (87%) of various socioeconomic backgrounds. The length of the store visits varied between 1 and 44 minutes ($M = 12.32$ min., $SD = 7.88$).

Observation Procedure

Before starting the actual investigation, a pilot study was conducted. Sixteen observations were made in order to select and train the observers, to develop the observational coding scheme, and to refine observer instructions. Of the six observers in the pilot study, three were selected to conduct the actual observation study.

The universe of subjects was defined as all families with a child between the ages of 0 and 12 who entered the store. When the parent was accompanied by more than one child, the observer focused on the eldest child. The observers followed the parent-child couple from entering the store to passing through the checkout counter, recording all behaviors and interactions as they occurred during the store visit. After the parents and children packed their purchases, the observer approached the parents and children, informed them about the observation of their store visit, told them about the nature of the study, and asked them for consent to use the observational data. In addition, the observer asked the parent to fill out a questionnaire tapping a number of background
variables, including the age, gender and television viewing habits of the child, and family communication patterns.

When asked, all parents indicated they had not noticed the observer during the store visit. In addition, all parents gave consent to use the data and were willing to tell the age of the observed child. Sixty-nine percent \((n = 187)\) of the parents agreed to complete the questionnaire. Most of the parents who declined, indicated that they did not have time to do so.

**Coding Procedure**

Two observers coded the observations. To practice coding, we used a separate sub-sample of observations, which was derived from the pilot study and was not included in the final analysis. During the training period, extensive coders’ instructions and decision rules were created. Throughout the coding period, applying the codebook and dealing with doubtful cases were regularly discussed. Each coder analyzed approximately 50% of the sample; 5% of the sample was analyzed by both coders in order to determine intercoder reliabilities. Cohen's kappa's, indicating intercoder reliabilities, were good for all variables (all kappa's > .70; Stevens, 1996).

**Measures**

As many variables as possible were measured using the observational coding method. Only the variables that were difficult or impossible to detect during a store visit were assessed with the questionnaire. Consequently, the parent-child interaction and outcome variables (i.e., children’s influence attempts, coercive behavior, parent-initiated interactions, and product purchases) were all measured during the observation, while most of the remaining variables (i.e., child’s gender and television viewing behavior, family income, family communication patterns) were measured with the questionnaire.
Children’s purchase influence attempts. Following earlier studies (Brody et al., 1981; Galst & White, 1976; Holden, 1983), purchase influence attempts were defined as all attempts by children to express a desire for a particular product, including simple requesting, pointing, naming a product, or grabbing it from the shelf. The number of children's purchase influence attempts ranged from 0 to 18 per store visit ($M = 2.61$, $SD = 2.58$, kappa = .82). To create an average purchase influence attempt variable, the total number of requests was divided by the length of the store visit in minutes ($M = .23$, $SD = .22$).

Children’s coercive behavior. Children's coercive behavior was defined as forceful or persistent request behavior, for instance demanding, begging, or repeating a request that was declined or ignored by the parent. The number of persistent requests varied from 0 to 5 per store visit ($M = .32$, $SD = .72$, kappa = .74), and was also divided by the length of the store visit to create the coercive behavior variable ($M = .09$, $SD = .24$).

Parent-initiated interactions. Finally, parent-initiated interactions were defined as all cases in which parents invited their children to take part in the decision making process, for instance by asking them which product they preferred, inviting them to make a product selection, or suggesting to purchase a certain product. The total number of parent-initiated interactions (ranging from 0 to 8 per visit, $M = 1.17$, $SD = 1.30$, kappa = .90) was divided by the length of the store visit to create the parent-initiated interactions variable ($M = .11$, $SD = .13$).

Product purchase. Product purchase was coded when an interaction actually resulted in purchase of the product. The number of interactions resulting in product purchase ranged from 0 to 11 per visit ($M = 1.84$, $SD = 1.82$).

Socialization variables. Estimates of children's television viewing behavior were obtained by asking the parents (1) how many weekdays and (2) how many weekend
days their child watched television. Children's viewing time was calculated by summing the two scores (range 0-7, $M = 5.68$, $SD = 1.82$). To measure family income, parents estimated the family's net monthly income on an 8-point scale ranging from $1 = \text{850 euro or less per month}$ to $8 = \text{4200 euro or more per month}$ ($M = 4.90$, $SD = 1.83$).

Finally, to measure family communication patterns, we used the original Family Communications Patterns Scale by Chaffee et al. (1971) and adapted the items to more current statements. Our list of four items measuring concept-oriented communication on a 4-point scale (ranging from $1 = \text{strongly disagree}$ to $4 = \text{strongly agree}$) included such statements as "I appreciate to hear my child's opinion" and "I respect my child's expertise on certain matters." Because the total scale had an inadequate reliability (Cronbach's alpha = .57), one item was omitted. The total concept-oriented communication scale was constructed by averaging the scores on the remaining three items ($\alpha = .60$, $M = 3.33$, $SD = .41$). The socio-oriented communication scale consisted of four items, including statements such as "In our family, adults have the final say" and "My children have to accept the decisions I make." ($\alpha = .61$, $M = 2.79$, $SD = .49$). The reliability coefficients of both communication patterns scales are comparable to those observed in earlier family communication research (see, for instance, Carlson & Grossbart, 1988; Moschis, Prahasto, & Mitchell, 1986).

**Results**

**Descriptive Results**

A total of 1032 parent-child interactions about purchases were observed, 620 in the supermarkets and 412 in the toy stores. More than two-third (69%) of these interactions were initiated by the child. Twelve percent of the child-initiated interactions resulted in coercive behavior. Children on average made 2.8 purchase influence attempts during a supermarket visit, versus 2.4 attempts during a toy store visit. The remaining parent-child interactions (31%) were parent-initiated. Parents on average
initiated 1.4 interactions during a supermarket visit, versus 0.9 interactions in the toy store. Overall, 43% of the interactions resulted in purchase of the product (55% in the supermarket vs. 25% in the toy store).

*Purchase-Related Interaction Variables in Different Age Groups*

To investigate the purchase-related interaction variables in supermarkets and toy stores among children in different age groups (H1-H3), we conducted a two-way analysis of variance (GLM) on the scores of each of the three dependent variables (i.e., children’s purchase influence attempts, children’s coercive behavior, and parent-initiated interactions) with age group (0- 2- vs. 3- 5- vs. 6- 8- vs. 9- 13-year-olds) and type of store (supermarket vs. toy store) as between-subjects factors. Table 1 provides the mean scores and standard deviations on each of the interaction variables in the four age groups in supermarkets and toy stores.

The GLM analysis revealed two main effects of age group, one on children’s purchase influence attempts ($F(3,265) = 6.71, p < .001, \eta^2 = .07$) and one on their coercive behavior ($F(3,265) = 6.46, p < .001, \eta^2 = .07$). For type of store, no main effects were observed. The analysis also yielded a significant interaction effect between age group and type of store on parent-initiated interactions ($F(3, 265) = 3.41, p < .05, \eta^2 = .04$). This interaction effect indicated that the role of the child's age in parent-initiated interactions differed in supermarkets and toy stores. To investigate whether the pattern of results was as expected, posthoc LSD tests were conducted on both the supermarket and the toy store samples.

As can be seen in Table 1, the posthoc LSD tests yielded various patterns. In both the supermarket and the toy store, children’s influence attempts and coercive
behavior followed curvilinear patterns. Conform our first hypothesis, the number of children’s purchase influence attempts was significantly higher among 3- to 5-year-olds than among 0- to 2-year-olds (supermarket and toy store $p < .05$), and 8- to 13-year-olds (supermarket and toy store $p < .05$). In accordance with our second hypothesis, children’s coercive behavior was also significantly more frequent in the second age group than in the youngest (supermarket $p < .01$; toy store $p < .05$), and the two oldest age groups (supermarket and toy store $p < .05$).

Finally, as the interaction effect indicated, parent-initiated interactions were different in the supermarkets than in the toy stores. In the supermarkets, parent-initiated interactions gradually increased with the child's age ($p < .05$ between 0-2- and 3-5-year-olds; $p < .05$ between 6-8- and 9-12-year-olds), while in the toy store no significant age differences in parent-initiated interactions were found.

**Outcomes of Parent-Child Interactions in Different Age Groups: Product Purchases**

Our first research question asked to what extent each parent-child interaction type resulted in a product purchase. Because the GLM analysis yielded similar patterns in supermarkets and toys stores, further analyses were conducted on the total sample of parent-child dyads. Table 2 depicts the proportion of parent-child interactions resulting in product purchase for each age group. As can be seen in the table, 31% of children’s influence attempts, 26% of their coercive behavior, and 70% of parent-initiated interactions resulted in a product purchase. In the eldest age group, children's influence attempts significantly more often resulted in product purchase than in the younger age groups, $\chi^2 (3, n = 704) = 39.21$, $p < .001$. As for children’s coercive behavior, the percentage of product purchases was also higher in the oldest age group, but this difference was not significant, probably due to the relatively low level of coercive behavior, $\chi^2 (3, n = 80) = 8.86$, $p = .08$. Finally, the percentage of parent-initiated interactions resulting in a product purchase did not significantly vary by age.
Socialization Influences on Purchase-Related Interactions

The second aim of our study was to investigate the relations between various socialization factors and the three parent-child interaction variables (H4-H6, RQ2). Because the socialization variables were measured with the questionnaire, this part of the analyses was based on the sample of parent-child dyads that completed the questionnaire (n = 187). We conducted three multiple regression analyses with children’s purchase influence attempts, coercive behavior, and parent-initiated interactions as dependent variables and the five socialization variables (children’s television viewing and gender, family income, concept- and socio-oriented family communication) as independent variables.

Table 3 provides the summary of the regression predictions of the three interaction variables. The socialization variables accounted for 4% of the variance in children's purchase influence attempts, $F(5, 164) = 1.27$, ns, 3% in coercive behavior $F(5, 164) = .87$, ns, and 7% in parent-initiated interactions $F(5, 164) = 2.55, p < .05$. As can be seen in Table 3, the number of children’s purchase influence attempts was mainly predicted by their television viewing behavior ($B = .02, SE = .01, \beta = .18, p < .05$). For coercive behavior, none of the socialization influences were significant.

Finally, parent-initiated interaction was significantly predicted by children's television viewing ($B = .01, SE = .01, \beta = .20, p < .01$) and family income ($B = .01, SE = .01, \beta = .21, p < .01$).
Discussion

Based on theories of children's consumer development (Valkenburg & Cantor, 2001) and parent-child interaction (Cowan & Avants, 1988; Mangleburg, 1990) we proposed a number of hypotheses predicting the developmental patterns of children’s purchase influence attempts, their coercive behavior, and parent-initiated interactions throughout childhood. In accordance with our predictions, children’s purchase influence attempts (H1) and coercive behavior (H2) followed an inverted-U pattern. Purchase influence attempts increased until the age of 6 (early elementary school), and started to decline after the age of 8 (late elementary school). Children's coercive behavior reached a peak between the ages of 3 and 5 (preschool) and then declined again. Finally, also conform our expectations, parent-initiated interactions (H3) linearly increased with children’s age. In other words, with increasing age, children were more likely to be involved in the purchase decision making process.

Although most developmental interaction patterns were observed in the supermarkets as well as the toy stores, the linear pattern for parent-initiated interactions only held for the supermarket observations. An explanation for this unexpected result might lie in the motives with which parents initiate interactions. In the supermarket, parents involve older children in the decision making process more often because they increasingly take into account their opinions, wants, and preferences in the decision-making process (McNeal, 1999). However, to our knowledge there is no academic research on parent-child interactions in a retail environment other than the supermarket. It is conceivable that in the toy store, parents hold other motives to initiate interactions that do not increase with age, such as helping the child to make a product choice. There is a need for future research investigating these parental motives and comparing them across different types of retail environments.

Outcome of the Interactions: Product Purchases
Our first research question investigated the outcomes of the three parent-child interaction variables: the number of product purchases. During an average retail store visit, almost two purchases were made as a result of a parent-child interaction. Approximately one-third of children’s influence attempts resulted in a product purchase. This number was significantly higher among children older than 9. Up till the age of 5, about one quarter of children’s purchase influence attempts resulted in product purchase, while by the age of 9, more than half of children’s influence attempts resulted in a purchase. Finally, more than two-thirds of parent-initiated interactions resulted in purchase of the product. This result is in line with research on family purchase decision making which has shown that parents are, generally, the final decision maker in the decision making process (Mangleburg, 1990; Williams & Burns, 2000), which might explain this high proportion of purchases.

The extent to which parent-child interactions result in product purchase can be considered as children’s actual influence in family purchase decision making. This influence may be direct, for instance when they actively ask for or demand a product, or indirect, for instance when parents take account of the wants and preferences of their children (Isler et al., 1987; McNeal, 1992). Thus far, studies on children’s purchase influence have predominantly focused on their direct purchase influence attempts (Brody et al., 1981; Holden, 1983; Isler et al., 1987). Our findings contribute to this line of research in two ways. First, our results demonstrate that children’s purchase influence differs greatly between children in different age groups. Although late elementary school children make less direct purchase influence attempts than younger children, their requests more often result in product purchase. Second, children’s indirect influence is as important as their direct influence. Although parents initiate a purchase-related interaction less often than children, parent-initiated interactions result in a purchase more often than child-initiated interactions.
Socialization Influences on Purchase-Related Interactions

Our second aim was to compare the relative effects of several socialization variables on the three interaction variables. First, children’s purchase influence attempts were mainly determined by their television viewing behaviors. This finding corroborates advertising effects theories indicating that television, especially among young children, functions as an important source of information about products and brands (Buijzen & Valkenburg, 2000). Our results show that, even when controlling for other socialization variables, television exerted the most important influence on children’s purchase influence behavior.

Second, parent-initiated interactions were mainly determined by family income and children’s television viewing behavior. High-income parents more often invited their child to make a product selection than low-income parents did. It is conceivable that parents in high-income families are more inclined to give their children a say in purchase decisions because of their greater financial resources. Our finding that parent-initiated interactions were also related to children’s television viewing may be explained by general family child-rearing styles (Carlson & Grossbart, 1988). It has been shown, for instance, that parents who are more permissive toward children’s television viewing behavior and hold less negative attitudes toward television advertising, communicate more often with their children about consumption matters (Carlson & Grossbart, 1988). Future research could investigate the role of different parenting styles (e.g., authoritative, authoritarian, permissive, neglecting) in purchase related parent-child interactions.

Finally, children’s coercive behavior was not related to any of the socialization variables. Thus, our findings suggest that the extent to which children display coercive behavior is mainly dependent on their age. Our finding that preschoolers displayed coercive behavior most often concurs with theories on children’s ability to delay
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gratification. Preschoolers often have difficulty to resist temptations, while older children gradually become more capable of delaying gratification of their wants and needs (Dawson & Balfour, 1983; Metcalf & Mischel, 1999; Valkenburg & Cantor, 2001).

This study demonstrated the importance of investigating purchase-related parent-child interactions from a developmental and a socialization perspective. Our findings show that different parent-child interaction variables (i.e., children’s purchase influence attempts, their coercive behavior, and parent-initiated interactions) and the outcomes of these interactions (i.e., product purchase) differ greatly between children in various age groups. In addition to age, socialization influences such as children’s television viewing and family income also played a role in parent-child interactions. Finally, our study showed that parents play an important role in purchase-related interactions. Previous research on children’s influence on family purchases has primarily focused on children’s direct purchase influence attempts. Our findings indicate the importance of taking into account the parents’ role in the decision making process and the need to further explore parental motives and styles in dealing with purchase-related interactions with their children.
References


### Table 1

*Purchase-Related Parent-Child Interactions in Different Age Groups.*

<table>
<thead>
<tr>
<th>Age group</th>
<th>0-2 years</th>
<th>3-5 years</th>
<th>6-8 years</th>
<th>9-13 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Supermarket</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children's influence attempts</td>
<td>.14^a (.19)</td>
<td>.23^b (.15)</td>
<td>.26^b (.21)</td>
<td>.18^a (.15)</td>
</tr>
<tr>
<td>Children's coercive behavior</td>
<td>.01^a (.03)</td>
<td>.06^b (.14)</td>
<td>.02^a (.04)</td>
<td>.01^a (.04)</td>
</tr>
<tr>
<td>Parent-initiated interactions</td>
<td>.05^a (.07)</td>
<td>.10^b (.10)</td>
<td>.10^b (.11)</td>
<td>.15^c (.12)</td>
</tr>
<tr>
<td>Toy store</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children's influence attempts</td>
<td>.16^a (.18)</td>
<td>.35^b (.31)</td>
<td>.29^b (.27)</td>
<td>.16^a (.19)</td>
</tr>
<tr>
<td>Children's coercive behavior</td>
<td>.00^a (.01)</td>
<td>.07^b (.15)</td>
<td>.01^a (.04)</td>
<td>.01^a (.03)</td>
</tr>
<tr>
<td>Parent-initiated interactions</td>
<td>.10 (.16)</td>
<td>.13 (.17)</td>
<td>.12 (.15)</td>
<td>.07 (.10)</td>
</tr>
</tbody>
</table>

^a^ ^b^ ^c^ row values differ significantly at least at *p* < .05.
Table 2

*Percentage of Parent-Child Interactions Resulting in Product Purchase in Different Age Groups.*

<table>
<thead>
<tr>
<th>% (n purchase / n cell)</th>
<th>0-2 years</th>
<th>3-5 years</th>
<th>6-8 years</th>
<th>9-13 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s influence attempts</td>
<td>24.2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>24.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>30.2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>53.4&lt;sup&gt;b&lt;/sup&gt;</td>
<td>31.3</td>
</tr>
<tr>
<td>Children’s coercive behavior</td>
<td>25.0</td>
<td>20.4</td>
<td>25.0</td>
<td>60.0</td>
<td>25.6</td>
</tr>
<tr>
<td>Parent-initiated interactions</td>
<td>66.7</td>
<td>68.2</td>
<td>68.8</td>
<td>73.7</td>
<td>69.8</td>
</tr>
</tbody>
</table>

*<sup>ab</sup> row values differ significantly at least at p < .001.*

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Table 3

*Summary of Regression Analyses Predicting the Interaction Variables*

<table>
<thead>
<tr>
<th></th>
<th>Purchase influence</th>
<th>Coercive behaviors</th>
<th>Parent-initiated interactions</th>
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<tr>
<td></td>
<td>β (r)</td>
<td>β (r)</td>
<td>β (r)</td>
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<tr>
<td>Television viewing</td>
<td>.18* (.15*)</td>
<td>-.11</td>
<td>.20**</td>
</tr>
<tr>
<td></td>
<td>(-.09)</td>
<td>(.17*)</td>
<td></td>
</tr>
<tr>
<td>Child's sex (0 = boy; 1 = girl)</td>
<td>-.01 (-.08)</td>
<td>-.10</td>
<td>.06 (.09)</td>
</tr>
<tr>
<td></td>
<td>(-.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family income</td>
<td>.01</td>
<td>.03</td>
<td>.21**</td>
</tr>
<tr>
<td></td>
<td>(-.04)</td>
<td>(.05)</td>
<td>(.17*)</td>
</tr>
<tr>
<td>Concept-oriented comm.</td>
<td>-.03 (-.00)</td>
<td>.07</td>
<td>-.06</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(-.01)</td>
<td></td>
</tr>
<tr>
<td>Socio-oriented comm.</td>
<td>.05 (.06)</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>(.02)</td>
<td>(-.01)</td>
<td></td>
</tr>
<tr>
<td>R square</td>
<td>.04</td>
<td>.03</td>
<td>.07</td>
</tr>
</tbody>
</table>

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