

“Mommy, I want that!” – Spontaneous purchases triggered by children

Claus Ebster

Udo Wagner

Deniese Neumueller

Department of Marketing, University of Vienna

Vienna, Austria

Correspondence should be addressed to Claus Ebster, Department of Marketing,
University of Vienna, Bruenner Strasse 72, A-1210 Vienna, Austria. Electronic mail may
be sent to claus.ebster@univie.ac.at. Tel. +43-1-4277 38017

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Abstract

While spontaneous purchases have received considerable attention in consumer behavior and retailing literature, little is known about the influence children have on their parents' unplanned purchases in a retail setting. This study investigates for the first time which factors affect children's purchase requests and parents' subsequent unplanned purchases. To this aim, 200 child-parent dyads shopping in supermarkets were unobtrusively observed and subsequently interviewed. It was found that factors influencing the number of children's purchase requests were the amount of time spent in the store, the freedom of a child's movements, the product's visibility, and the child's developmental stage. The latter variable together with the aspired good's suitability for consumption on the premises, the linguistic form of child's request, household income, and the price of the good determine the number of unplanned purchases following a child's request.

Key words: Spontaneous purchases; children

Introduction

An experience many parents of younger children share is that when shopping, particularly in a supermarket setting, their offspring vocally and insistently demands the purchase of certain products which are not on their shopping list.

Spontaneous purchases make up a substantial portion of all purchases. In one study, it was found that between 27 and 62 percent of purchases made in sales outlets were spontaneous or unplanned (Bellenger, Robertson, & Hirschman, 1978). A variety of factors that influence unplanned purchases have been proposed, such as consumers' personality traits (Youn & Faber, 2000; Rook, 1987), atmospheric influences on shoppers (Yalch & Spangenberg, 1990), the price

level of products (Bellenger, Robertson, & Hirschman, 1978), and sales promotions (Heilman, Nakamoto, & Rao, 2002). One area that has so far received little attention is the influence children have on their parents' unplanned buying.

There are an abundance of studies investigating the influence of advertising on children (e.g., Derbaix & Bree, 1997; Brand & Greenberg, 1994), and the influence of children on consumer decision making in the family (e.g., Labreque & Ricard, 2001; Holdert & Antonides, 1997). Yet, little is known about the role children play in their parents' spontaneous purchases at the point of sale. This is surprising considering that retailers are apparently aware of the influence children have on accompanying adults from studies conducted in retail outlets specifically designed to attract children, such as GapKids or WaldenKids (McNeal, 1992).

The aim of this study is to shed light on the phenomenon of unplanned purchases triggered by children. Specifically, it aims to find out:

- which factors influence the number of requests made by children;
- which factors influence unplanned purchases made by parents following a child's request;
- and
- the degree to which parents are aware of their children's influence on their spontaneous purchases.

As mentioned above, literature on this topic is sparse and spread over various disciplines. Additionally, the studies identified concentrate only on individual factors, frequently on somewhat different research questions. In this study, a comprehensive view is taken. The phenomenon is investigated by first developing a conceptual framework in order to set up potential relationships between factors influencing children's purchase requests as well as parents' subsequent yielding to the requests. In a further step, primary research in a retail setting is carried out and the established hypotheses are tested empirically.

Conceptual framework

Unplanned purchases are defined as purchases that result from buying decisions that are made after the consumer enters the store (Rook, 1987). While unplanned purchase behavior has frequently been used synonymously with impulsive buying (e.g., Cobb & Hoyer, 1986), several

types of behavior can be distinguished. In the case of impulse purchases, consumers act on a sudden urge to buy a specific product, whereas unplanned purchases can also occur when consumers are reminded of existing needs or respond to purchase suggestions (Stern, 1962). In the context of this study, children's purchase demands could be classified as impulsive, while the parent's positive response to a child's request would qualify as an unplanned purchase.

In order to investigate the role of children in their parents' unplanned purchases, factors influencing children's purchase requests are explored. Then factors determining whether parents grant or reject their child's requests are focused on. These factors were identified through a literature review in the fields of consumer behavior, developmental psychology, communication theory and physiology.

The literature review is organized as follows: First, four factors which might influence a child's purchase request are identified and hypotheses H1a – H1d are formulated. Subsequently, the direct relationship between the child's requests and the resulting unplanned purchases of the parent is investigated (hypothesis H2). There are several other factors which may influence the likelihood of an unplanned purchase triggered by the child. These are discussed in the next subsection and hypotheses H3a – H3f are developed. While this is the first comprehensive study on children's influence on purchase decisions at the point of sale, there have been several general studies on children's role in consumer decision making. Most of these analyses are based on data collected through interviews. However, this data collection method carries the risk of distortions because of social desirability bias. The final subsection of the literature review deals with this issue (hypothesis 4).

Factors influencing a child's purchase requests

At the most fundamental level, it appears likely that the number of purchase requests made by children while shopping with their parents is positively related to the amount of time spent in a store. Jarboe & McDaniel (1987) found that leisurely browsing in a retail environment increased the number of unplanned purchases. The longer consumers stay in a store, the more likely it is that they will encounter stimuli leading to purchase urges (Beatty & Ferrell, 1998). Accordingly, hypothesis 1a states:

H1a: *The more time children spend in a store, the more purchase requests they will make.*

In a study on parents' purchasing behavior, Rust (1993) found that 31 percent of children under the age of seven sit in either a stroller or a seat in the shopping cart when accompanying their parents to the supermarket. Consequently, it is assumed that they will make fewer purchase requests as their movement and view are restricted from sitting in a buggy or a cart. In addition, they are often distracted because they sit facing their parents. Accordingly, it is hypothesized:

H1b: *Children whose movement is restricted by sitting in a shopping cart or stroller will make fewer purchase requests than children who are not seated.*

Another factor related to the purchasing environment, which has been linked to adult's unplanned purchases, is the placement of merchandise. Specifically, placing products at eye level attracts consumers' attention (Phillips & Bradshaw, 1993), a finding that corresponds with the retailing adage "eye level is buy level" (Wilkie, 1994, p. 219). In a store study, it was found that products placed on an upper shelf received 35 percent greater attention than products on a lower shelf (Packaging Research, 1983).

While impulse purchases are also affected by other environmental factors such as background music and sales displays (Chevalier, 1975), placing a product at eye level appears to be of particular importance in the context of this study. As children and adults differ considerably in height, it is within the scope of the retailer to place products directed at children at their eye level. This is expressed in hypothesis 1c:

H1c: *Children will request more products placed at their eye level than products not placed at their eye level.*

In addition to environmental factors, it appears likely that a child's developmental stage will influence how many purchase requests are directed at his/her parents. A comprehensive conceptual framework for consumer socialization that describes both changes in cognitive abilities and children's social development related to consumer behavior was developed by John (1999). Based on extensive research on children's maturation as consumers, published in marketing and communications journals between 1974 and 1998, she identified three developmental stages:

- (1) In the *perceptual stage* (ages 3-7), children's perspectives are egocentric, i.e., they are not able to take into account other people's perspectives, such as their parents'. Decisions are usually made based on very limited information, e.g. the size or the color of an object. Children in this stage usually do not plan ahead but seek instant gratification.
- (2) In the *analytical stage* (ages 8-10), children's capabilities to process information increase considerably. Abstract reasoning starts developing and children generally become more knowledgeable about marketing. They take several attributes into account when evaluating brands and are able to think from the perspective of others.
- (3) In the *reflective stage* (ages 11-16), cognitive and social skills are further developed and children in this stage have a fairly clear understanding of basic marketing concepts such as brands and pricing. Unlike in the analytical stage, they have an extensive repertoire of consumer decision making strategies as well as social influence strategies (John, 1999).

Due to the egocentric, expedient orientation of children in the perceptual stage and their limited ability to predict their parents' responses to their actions, it is hypothesized that:

H1d: *Children in the perceptual stage will make more purchase requests than children in the higher stages of consumer socialization.*

Factors influencing parents' unplanned purchases based on their children's requests

The most basic hypothesis (H2) states that the number of unplanned purchases by parents is influenced by the number of purchase requests from their child, which can be considered as stimuli to which parents react. Following a child's request, a number of factors will influence whether parents carry out a purchase. These are explored in hypothesis 3. To begin with, hypothesis 2 states:

H2: *The more purchase requests a child makes, the more unplanned purchases influenced by the child the parents will make.*

This hypothesis does not imply a linear relationship between purchase requests and actual purchases. In fact, as parents could experience reactance or annoyance the more requests a child makes, the marginal growth in the number of purchases will probably decrease with an increasing number of purchase requests.

While children in the perceptual stage make more purchase requests than children in the higher developmental stages (cf. H1d), it appears likely that their parents will be less inclined to act upon their suggestions than parents of children in the analytical and reflective stages. Children in the higher developmental stages are able to think from the perspective of their parents and are able to adapt their influence strategies to different persons and situations (John, 1999; Palan & Wilkes, 1997). With age, children learn to compromise and to bargain (Rust, 1993), their shopping skills improve (Turner & Brandt, 1978), and they become more successful in influencing their parents (Jensen, 1985; Ward & Wackman, 1972). Therefore, hypothesis 3a postulates:

H3a: *The number of unplanned purchases resulting from a child's request is higher when the child is in the analytical or reflective stage than when it is in the perceptual stage.*

It is interesting to note that the developmental stage of the child influences the parents' likelihood of making unplanned purchases in two different ways: On the one hand, younger children will probably make more requests (cf. H1d) and more requests might result in a larger number of actual purchases (cf. H2); on the other hand, older, more mature children are hypothesized to be more effective in triggering parents spontaneous purchases (cf. H3a).

Another factor that might influence parents' willingness to make a purchase on a child's suggestion may depend on how often they go shopping together. Similar to children, whose sophistication as consumers increases with age, parents who frequently shop with their children may become more adept at resisting their children's influence attempts. Anecdotal evidence suggests that such parents employ "strategies" such as bringing a toy to the supermarket, feeding their children before going on a shopping trip, or choosing to shop in stores that do not place child-related impulse products in waiting zones at the checkout. On the other hand, parents who shop with their children less frequently might be more exposed to children's purchase suggestions and perhaps even actively "spoil" the child by yielding easily to their requests. This leads to hypothesis 3b:

H3b: *The number of unplanned purchases triggered by children will be lower for parents that frequently shop with their child.*

The results of focus group interviews with parents, conducted by the authors, indicate that children's purchase suggestions are frequently accepted when the requested product can be consumed in the store. This finding was also substantiated by the results of a consumer survey (IMAS, 1991) conducted by a commercial market research company in Austria. Therefore, parents are more likely to purchase in-store consumable products to stop being pestered by their children and to occupy them. As a result, hypothesis 3c states:

H3c: *Parents will yield more frequently to a child's purchase request for products consumable in the store than for products that cannot be consumed in the store.*

Whether or not parents honor a child's product request also depends on the linguistic form of the request. In a study on cereal decision making, Atkin (1978) found that 65 percent of parents responded positively when the child demanded that a specific brand was bought, whereas only 58 percent of parents purchased the brand when the child made "a less assertive cereal request" (p. 42). This may seem surprising considering that parents might experience reactance in the case of a demand. It appears possible, however, that two distinct types of linguistic structures, "observations" and "requests" may have been classified in the single category of "request". According to Herrmann (1982), a speaker can express a wish in three different ways: (1) as an observation, e.g., "Look, there're some chocolate bars" or "There are no chocolate bars left"; (2) as a request, e.g., "Can I have a chocolate bar" or "Can you buy me a chocolate bar, please"; and (3) as a demand based on a (social) norm, e.g., "I was nice all day so I should get a chocolate" or "You must buy me a chocolate bar!".

In the case of an observation, the least direct of the three linguistic forms, parents may interpret the child's utterance as merely a statement of fact instead of a call for action on the part of the parent. In the case of a demand, however, they may feel under pressure or manipulated and reject it, as predicted by reactance theory (Brehm & Brehm, 1981; Brehm, 1966). Consequently, hypothesis 3d states:

H3d: *Parents will yield more frequently to a child's purchase request when it is expressed as a request rather than an observation or demand.*

In addition to these factors, two aspects related to financial risk might also play a role in parents' decisions to purchase products following a child's request, namely the income of the parent and the price of the product requested by the child.

In several studies, it has been shown that a consumer's income is positively related to the number of impulse purchases made (Youn & Faber, 2000; Jensen, 1995). This might be due to the lower financial risk incurred by higher income consumers, and it appears plausible that such consumers might also yield to more product suggestions made by their child than lower income consumers. The perceived financial risk also seems to play a role in the fact that consumers are more likely to make unplanned purchases of lower rather than higher priced products (Youn & Faber, 2000; Iyer, 1989; Stern, 1962). This leads to hypotheses 3e and 3f:

H3e: *The higher the parents' household income, the more unplanned purchases following the child's request they will make.*

H3f: *Lower-priced products requested by the child will be bought more frequently than higher-priced products.*

The factors influencing children's purchase requests and the factors influencing parents' response to their children's request are summarized in Figure 1 in accordance with the above hypotheses.

Observed and reported unplanned purchases

In addition to the hypotheses presented above, to what extent parents are aware of their children's influence on their unplanned purchases is also of particular interest, as studies on consumer decision making in the family have frequently relied on survey data (e.g., Jensen, 1995; Foxman, Tansuhaj, & Ekstrom, 1989). It is expected that the number of child-related unplanned purchases, as reported by parents, will be considerably lower than the actual number because of social desirability bias in their responses. This response bias can, firstly, be directed at others in the form of impression management. For example, parents do not want to admit to an interviewer how much influence their children have on their consumer behavior. Secondly, it can be directed at themselves as a form of self-deception, i.e., they do not want to admit how much

influence their children have over them. This idea was conceptualized in Zerbe and Paulhus' (1987) two-component model of socially desirable response. Thus, the final hypothesis states:

H4: *Parents will state a lower number of unplanned purchases influenced by their children than the number of observed unplanned purchases.*

Method

In order to analyze the postulated hypotheses empirically, primary research was conducted in field study. This section of the paper presents the participants and the design of the research, which combines observational and survey data. This multiple method approach was chosen to minimize measurement problems as the phenomenon investigated might be considered sensitive by consumers and, therefore, could have lead to distorted results if only survey data had been used.

Participants

178 dyads of supermarket shoppers, a parent accompanied by one child, participated in the study. 74 percent of the parents and 54 percent of the children were female. The parents' mean age was 35.6 years and the children's mean age 5.9. Of the initial convenience sample of 200 pairs observed while shopping, 22 pairs were excluded from the analysis because in interviews subsequent to the observation, the pair did not consist of a parent with their child but of a child with another accompanying person.

Procedure and materials

Prior to data collection, six research assistants were trained in the task of observing and interviewing consumers in a supermarket setting and in completing the observational form. At the same time the questionnaire was pre-tested.

The observation of the parent-child dyads took place in two Austrian supermarkets located in Vienna and was conducted on eight days between 10 a.m. and 6:30 p.m. Each team of

research assistants consisted of one observer and one interviewer. At each research location, teams were systematically varied.

In both supermarkets, observers stood at the store entrance. When a group consisting of one adult and one child, who appeared to be between 3 and 14 years of age, entered the store, a disguised observer followed them and recorded the participants' verbal and nonverbal behavior until they passed through the check-out. After the check-out, the parent was approached by the interviewer and his/her participation in a short survey was requested. In order to avoid distortions of the data, only dyads were observed, i.e. groups of more than one adult or more than one child were excluded.

Observational form. The observational form consisted of two parts: In part one, demographic information, such as the parents' and children's gender and the time, date and place of the observation, was recorded. The second part of the data collection form contained the variables needed to test the hypotheses; in several cases issues of measurement arose:

- *Price of product:* The price of the product purchased was recorded on the basis of its shelf price tag.
- *Child's movement restricted when seated in shopping cart or stroller:* The child was classified as seated when it sat in a cart or stroller for the entire time, i.e. from entering the store until passing through checkout.
- *Product placed at the eye level of the child:* This variable was operationalized in accordance with Sanders' (1963) findings that peripheral vision extends 30° from central focusing in all directions. He calls this area, in which objects can be focused on without moving eye or head, 'stationary' field. He further distinguishes between 'eye field' (eye movement necessary) and 'head field' (head movement necessary). Subsequently, if a child was up to 1.5 m away from the shelf when requesting a product, all products ranging from the height of the child's shoulder to 20 cm above his/her head were recorded as being at eye level. Since the width of the aisles in the supermarkets in which the observation took place was between 1.5 and 2 m, most of the observed instances when a child requested a product were at this distance. If the child was located between more than 1.5 and 3 m away from the shelf, products ranging from the height of the child's hips up to 50 cm above the child's head were considered to be at eye level. If the child was more than 3 m away from the shelf,

all products were considered to be at eye level. In the pretest prior to the study, the research assistants had to independently classify 30 situations as being either at eye level or not. As they reached agreement in 29 situations, the reliability of this classification scheme was considered acceptable.

- *Suitability of product for consumption in the store:* The observers recorded the products requested by the children. Before the analysis, a list of the 95 products identified at the two stores was presented to ten parents, who assessed each product's suitability for consumption in the store. 31 of these products were classified consistently by the majority as appropriate for in-store consumption.
- *Request to purchase a product:* The child's verbal requests for a specific product in the store were recorded as product requests.
- *Linguistic type of request:* Prior to the study, the observers received extensive training in how to classify children's product requests as "observations", "requests" or "demands" according to the scheme proposed by Herrmann (1982). At the end of the training session, the observers had to independently classify 10 product requests. All research assistants agreed in their classification of the product requests.
- *Unplanned purchase:* An unplanned purchase triggered by the child was recorded when a parent, upon request by the child, put a product in the shopping cart or handed it to the child for consumption. If the parent at a later time (usually unbeknown to the child) put the product back on the shelf, it was not counted as an unplanned purchase.

Questionnaire. The interviews with parents after checkout were recorded in a standardized questionnaire, which was kept short in order to maximize participation in the survey. The *age of the parent* and the *age of the child* were asked as open questions. The age of the child was used to approximate the *developmental stage of the child*. While it would have been preferable to measure the child's developmental stage directly, this was not feasible given the time constraints of the interviews and furthermore a short test to measure John's (1999) developmental stages does not exist. The family's *net income per month* was recorded in an ordinal scale with four categories ranging from "less than €1450" to "more than €2150". The *number of times the parent goes shopping with the child in an average week* was measured using a scale consisting of the categories "never", "1 to 2 times", and "at least 3 times". The *perceived*

number of unplanned purchases triggered by the child was measured by recording the parent's response to the question "How many products do you think you bought at your child's request?". Nonresponse to this question occurred in only 13 cases.

Results

General characteristics of the sample

As mentioned above, a convenience sampling procedure was employed essentially, but care was taken with respect to varying place, time of observation and team of interviewers. Table 1 displays descriptive statistics about the sample. In total, 178 dyads consisting of one parent and one child were observed and interviewed. As grocery shopping is dominated by female consumers, there were about three times as many female parents as male, however the gender of the children was almost equally distributed. Additionally, the typical age of adults with young children dominated the distribution of parent's age, with 53 percent between 31 and 40 years of age. 64 percent of the children accompanying their parents shopping were between 3 and 6 years of age.

In total, 424 purchase requests were observed (about 2.4 per dyad) and 219 products were purchased spontaneously (about 1.2 per dyad). The purchase trip lasted on average about 13 minutes, with some substantially longer (up to 45 minutes). Pairs with a younger child usually spent more time within the store. On average, products worth about €24 were bought in total, but this variable was quite dispersed (min €0.55 and max €126.66). When calculated at the individual level and averaged across dyads, about 11 percent of total expenditure was spent on unplanned purchases. This is quite different from a first approximation of 5.8 percent calculated by dividing the average amount spent on unplanned purchases (€1.4) by the average spent in total (€24). This discrepancy is due to the highly skewed distribution of total expenditure. Furthermore, it was found that about 60 percent of the consumers spent between €0.01 and €2 on unplanned purchases (cf. Table 1). Two shoppers only made unplanned purchases.

Female shoppers tend to be more conservative with respect to unplanned buying. Whereas 21 percent of the females did not make any unplanned purchases despite requests from their

accompanying child and only 11 percent spent between €2.01 and €3, the percentages for the males are 9 percent and 24 percent, respectively.

Finally, odd/even pricing did not seem to have an impact on unplanned buying since no differences with respect to price endings were found when comparing planned and unplanned purchased products.

Results concerning Hypotheses 1a – 1d

Hypotheses 1 concentrate on factors influencing the number of requests made by the child. Therefore, this is the dependent variable for subsequent analysis. The identified predictor variables are not independent of each other in a strict sense, e. g. the older the child, the higher his/her developmental stage and the less likely he/she will sit in a stroller. Consequently, it was decided to perform four separate bivariate analyses for H1a – H1d, and additionally a multivariate analysis to simultaneously investigate H1a—H1d. The results are shown in Table 2. With the exception of H1b (relationship between restriction of child's movement and number of purchase requests), results of the bivariate and the multivariate analyses are consistent and in line with the postulated relationships.

Moreover, standardized regression coefficients permit direct comparison and therefore the placement of the product at the child's eye level was found to be the most important predictor. The amount of time spent in the store also explains a substantial share of the variability of the number of requests made by the child. The restriction on the child's movement and his/her developmental stage seem to be equally important. The coefficient of determination (R^2) is satisfactory as are the results in general. Diagnostic checks of the condition of the correlation matrix did not raise concerns on multicollinearity.

Results concerning Hypothesis 2

The single dyad is also the subject of investigation for hypothesis H2. However, the dependent variable of H1 (the number of requests made by the child) is now employed as a predictor for the number of unplanned purchases following the child's request. Since only two variables are involved here a simple regression analysis was performed and the results are

displayed in Table 3. It has already been emphasized that the impact of a single request might decrease with an increasing number of previously delivered requests. In order to take this effect into consideration, the logarithm of the number of purchase requests was employed as the independent variable. This transformation, however, does not seem to be of particular importance, since other functional relationships resulted in similar results. The identified regression coefficient is statistically significant and in line with the postulated relationship according to H2 (the more purchase requests a child makes, the more unplanned purchases influenced by the child the parents make). When used as a means for extrapolation, about 1.2 purchases per 2 requests placed but only 2 purchases per 5 requests placed by the child are predicted.

Results concerning Hypotheses 3a – 3f

Hypotheses 3 refer to the factors influencing a parent's decision to purchase or not to purchase a product requested by the child. To facilitate presentation, H3a – 3f were formulated at an aggregate level (i.e., “the *number* of unplanned purchases will be ...”). Several of the factors assumed to be influential (e.g., price) are, however, product specific. Therefore, the *likelihood* of unplanned purchases rather than the *number* of unplanned purchases has to be considered, which results in a binary dependent variable. The observational unit is the product requested. As more than one unplanned purchase per dyad was usually observed, this resulted in an increased sample size of 424. Some of the predictor variables are constant for a given dyad (e.g. the developmental stage of the child) and therefore the data was analyzed in order to check for multicollinearity. Conventional checks did not identify such problems.

Several separate statistical analyses (Kolmogorov-Smirnov-tests, χ^2 – tests, and simple logistic regression respectively) as well as one simultaneous analysis (logistic regression) were performed and the results are shown in Table 4. From an interpretative point of view both, the six bivariate tests and the one multivariate test provide identical evidence and support all postulated hypotheses with the exception of H3b (i.e., the frequency of parent and child shopping together did not significantly influence purchase behavior in the present case). It is worth noting that this hypothesis was not explicitly derived from the literature.

Furthermore, parameter estimates $\hat{\beta}$ of the logistic regression model are significant and have the expected signs (cf. Figure 1). Since they describe the linear effects of the predictors on the log of the odds ratio of the dependent variable (purchase versus non-purchase), interpretation is more intuitive in terms of the coefficients' odds ratio, i.e. $\exp(\hat{\beta})$. For example, a child requesting a product is about ten times more likely to receive the product when the statement is uttered as a "request" rather than a "demand". Making an "observation" rather than a "demand" has a 2.5 times higher chance of triggering an unplanned purchase by the parent. High income households tend to make unplanned purchases 2.4 times more often than lower income families, younger children are 2.7 times more successful in triggering purchases than older ones, and products which are consumable in the store are purchased 1.9 times more often than products which are not.

Logistic regression analysis was performed in order to analyze the postulated hypotheses and not to predict the number of unplanned products purchased after having been requested. Therefore, interaction effects have not been accounted for. Nevertheless, when judged using pseudo R^2 and hit-rate, goodness-of-fit of the model is still satisfactory. Due to the limited data, it was not possible to divide it into an estimation and a hold-out sample to provide a more stringent calculation of the hit rate.

Results concerning Hypothesis 4

A straightforward way to investigate H4 is a simple comparison of the average number of observed purchases per dyad, i.e., 1.2 with the average number stated by the parents in the interviews, i.e., 0.7. This difference is highly significant as shown by a t-test for related samples. Besides this difference with respect to the means, a more systematic analysis is in order: Does the magnitude of this difference depend on the number of purchases or can a linear transformation between these variables be estimated? Thus, once again the single dyad is the subject of investigation here. The dependent variable of H2 (the number of observed unplanned purchases following the child's request) is now used to predict the number of unplanned purchases stated by the parents when interviewed. A simple regression model supports hypothesis 4 (cf. Table 5) and essentially estimates that parents understate the number of unplanned purchases by about 50

percent. No conclusive explanation for this finding can be provided but it could be due to the social desirability response behavior discussed previously. Recall loss or limited cooperation of the respondents might also have intensified this phenomenon.

Discussion

Earlier studies on children's influence on consumer decision making focused primarily on purchase decisions that are made prior to entering the store. In this study, children's influence on their parents' purchases decisions at the point of sale was investigated. A substantial proportion of all purchases are unplanned, thus unplanned purchases triggered by children are likely to be an area of considerable interest to both parents and retailers alike. This phenomenon has nevertheless received little attention in the literature before.

Using a hybrid methodological design combining observational data with personal interviews, it was found that children's influence on their parents' unplanned purchases is considerably more pervasive than would have been found if relying only on the parent's self report data obtained through interviews. This finding might also have methodological implications for reinforcing the usefulness of a combination of interviews and observation when researching consumer behavior in a retail setting.

In line with the hypotheses derived from consumer behavior and psychology literature, it was found that children make more purchase requests: (1) when they spend a longer time in the store; (2) when products are placed at children's eye level; (3) when they are at an early developmental stage. There is also support from the data, albeit limited, that children make more purchase requests when their movement and view are not restricted from being seated in a shopping cart or stroller.

The more purchase requests a child makes on a shopping trip, the more unplanned purchases it will trigger in the parent, but the rate of increase in purchases levels off. This could be due to parents experiencing reactance because of the child's repeated influence attempts. Whether or not the parent honors a child's purchase request for a product is influenced by several factors. According to the findings of this study, children in a higher developmental stage, who have a larger repertoire of influence tactics, tend to be more successful in convincing their

parents to buy them products. If one were to act as a marketing consultant to a child one would also advise the child to phrase his/her purchase appeals as polite requests, rather than weak observations or reactance-inducing demands. The child's influence attempt will also be more successful when the request is for a product that can be used or consumed in the store (such as small toys or certain foods items). Finally, parents are also more likely to act upon the child's purchase request, the higher their income and the lower the price of the product. While it was hypothesized that parents who shop less frequently with their child will make more unplanned purchases, this proposition was not supported by the data. Perhaps this is due to the sample size, as only 21 percent of parents go shopping with the child less than one or two times per week.

Limitations and suggestions for further research

As mentioned above, little is known about the role children play in their parents' spontaneous purchases at the point of sale. While researching the literature and carrying out the empirical research, a lack of knowledge about other potential factors influencing unplanned purchases was identified. Three seem to be of major relevance: nonverbal communication of the child, type of product and dynamic aspects.

- Nonverbal communication of the child

The linguistic type of the child's request was found to impact unplanned purchases to a great extent. There are, however, nonverbal means of communication which might be of relevance here. On the one hand, verbal requests are accompanied by nonverbal gestures, and on the other, nonverbal forms of communication (e.g. child's pointing to certain products) may suffice as a request. Both potential types of influence have not been considered.

- Type of product

In addition to being consumable in the store, the products' price as well as other attributes might also be important. It is quite evident that e.g. sweets, candies, toys or drinks are particularly desirable for children and, therefore, may represent a source of influence on their own. Due to the lack of any systematic product categorization scheme with respect to this feature, this study also did not take this issue into account.

- Dynamic aspects

While observing shopping behavior, it became apparent to the researchers that requests made earlier in the shopping trip had a greater chance of being positively responded to than when they were delivered towards the end of the visit to the store. Hypothesis 2 partly accounts for this phenomenon but at an overall level and no further systematic analysis was performed. This might be a relevant managerial issue to consider when designing stores and considering where to place products that are typically purchased spontaneously.

Yet another dynamic aspect is the individual stage of the child's consumer socialization process. Hypothesis 3b was designed to take this aspect into account but at a non-sophisticated level. Neither past experiences on joint shopping trips, nor parent's reactions on refusing to purchase the requested products (e.g. explanation for doing so, expressing possible purchase on a subsequent visit or of another product) have been considered. Mere frequencies of joint shopping trips were probably too imprecise a measure to account for such complex situations.

Further research on a theoretical level is needed here to provide guidelines for further empirical investigations.

With respect to sampling, the use of a convenience sample, the sample size and the restriction to include only dyads in the sample appear as limitations. Yet the design employed in this study was already quite demanding and time consuming and is justified by pragmatic reasons. It would be interesting, though, to extend the current analysis to other outlets and other types of retail stores (e.g. sportswear, clothes).

By combining the data collection methods of communication and observation, the design employed offered the opportunity to obtain quite a wide range of different aspects on unplanned buying. Nevertheless, several measurement issues did occur:

- Product placed at the eye level of the child
Measurement of this variable was performed according to the findings of Sanders (1963). He investigated visual fields of adults in a contrived setting and therefore his results might only apply in part for lively children who like to move. Moreover, the human method of administration when estimating the distances represents a potential source of error.
- Linguistic type of product request

As above, the human method of administration when listening to and categorizing verbal requests represents a potential source of error. Furthermore, non-product specific requests (e.g. 'I would like to have something to drink') have not been considered.

From a conceptual point of view it would be desirable to build a model that includes all variables considered. However, data requirements (i.e. different subjects of investigation for the different hypotheses, single dyad versus product requested) and sample size render this option unfeasible. Moreover, accuracy of measurement is probably not sufficient to identify reverse impact of the same variable (i.e. developmental stage of the child) within a single framework and the nonlinearity in hypothesis 2 would add to the complexity of the task.

Finally, the differences in the number of unplanned purchases reported by the parents and recorded by the observers provide an area for future research on its own. As mentioned above, the effects of social desirable response behavior might appear intensified because of recall loss or respondents' fatigue.

In addition to contributing to the body of knowledge on unplanned purchases triggered by children, the authors hope that their work will also stimulate further research on this issue, which is relevant for both retailers and parents.

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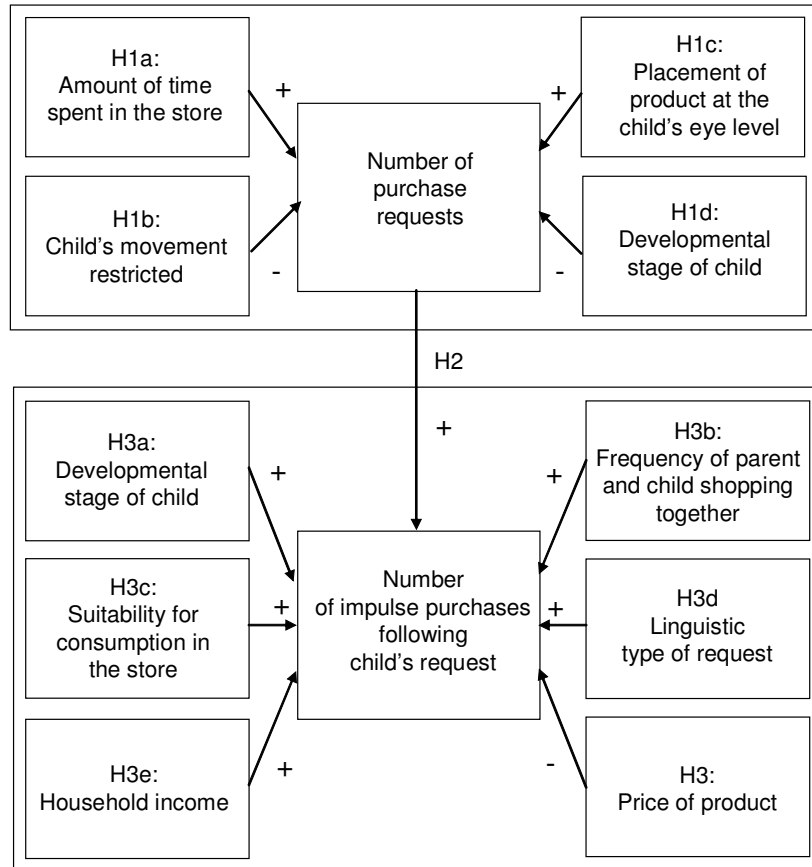


Fig. 1. Factors influencing number of purchase requests and number of purchases following child's requests

Descriptive statistics of the sample			
number of dyads who were observed and interviewed		178	
gender of adults		76 % female	
gender of children		54 % female	
age categories			
adults		children	
21 – 30	22 %	3 – 6	64 %
31 – 40	53 %	7 – 10	28 %
≥ 41	25 %	11 – 14	8 %
number of products requested		424	
number of unplanned purchases		219	
average duration of shopping trips		13 minutes	
average total amount spent on shopping trips		€24	
average amount spent on unplanned purchases		€1.4	
unplanned purchases			
amount spent	size of the segment	size of segment with respect to gender of adult	
		male	female
€0	18 %	9 %	21 %
€0.01 – €1	32 %	30 %	32 %
€1.01 – €2	27 %	28 %	27 %
€2.01 – €3	14 %	24 %	11 %
> €3	9 %	9 %	9 %

Table 1. Descriptive statistics of the sample

Regression analysis		Bivariate analysis
Dependent variable: number of purchase requests		
Independent variables	Standardized regression coefficients	
H1a: amount of time spent in the store	0.26 ***	***, Regression analysis
H1b: child's movement restricted (0 – no, 1 – yes)	-0.15 ***	n. s., ANOVA
H1c: number of products placed at child's eye level	0.65 ***	***, Regression analysis
H1d: developmental stage of child (0 – perceptual stage, 1 – higher stage)	-0.15 ***	***, ANOVA
R ² = 0.61 *** n = 178 (number of dyads)		n. s. – not significant *** – highly significant

Table 2. Results concerning hypothesis H1a – H1d – factors influencing children's purchase requests

Regression analysis	
Dependent variable: number of unplanned purchases following a child's request	
Independent variable	Regression coefficients
Constant	0.61 ***
H2: (log of) number of purchase requests	0.86 ***
R ² = 0.29 *** n = 178 (number of dyads)	*** – highly significant

Table 3. Results concerning hypothesis H2 – relationship between number of purchase requests and number of unplanned purchases following a child's request

Logistic regression analysis		Bivariate analysis
Dependent variable: unplanned purchase of requested product (reference category: non-purchase)		
Independent variable	Regression coefficient	
Constant	-2.11 ***	
H3a: developmental stage of child *** (reference category: perceptual stage)	0.99 ***	***, KS - test
H3b: frequency of parent and child shopping together ^{n. s.}		n. s., KS - test
H3c: suitability for consumption in the store *** (reference category: not consumable)	0.62 ***	***, χ^2 - test
H3d: linguistic type of request *** (reference category: demand) request observation	2.32 *** 0.92 **	***, KS - test
H3e: net household income per month * (reference category \leq €1450) €1451 – €1800 €1801 – €2150 > €2150	0.33 0.68 * 0.88 **	** , KS - test
H3f: price of the product ***	-0.31 ***	***, logistic regression analysis
$\rho^2 = 0.33$ *** (Nagelkerke) Hit-Rate = 0.72 ($C_{\max} = 0.52$, $C_{\text{pro}} = 0.50$) n = 424 (number of products requested)		n. s. – not significant * – weakly significant ** – significant *** – highly significant KS – Kolmogorov-Smirnov
C_{\max} : maximum change criterion C_{pro} : proportional change criterion		

Table 4. Results concerning hypothesis H3a – H3f – factors influencing parents' unplanned purchases following a child's request

Regression analysis	
Dependent variable: <i>perceived</i> number of unplanned purchases	
Independent Variable	Regression coefficient
Constant	0.16
H4: <i>observed</i> number of unplanned purchases	0.47 ***
$R^2 = 0.17$ *** n = 165 (number of dyads who responded to the question about the number of unplanned purchases)	

Table 5. Results concerning hypothesis H4 – relationship between perceived number of unplanned purchases and observed number of unplanned purchases