Children's purchase behavior in the snack market:

Can branding or low price motivate a healthy choice?

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Introduction

In recent years, the incidence and prevalence of children's dietary-related diseases and their associated costs have grown dramatically in many countries, making children's food choice a policy issue of increasing relevance (CDC 2015). To improve children's eating habits, various school-based interventions have been implemented in several countries (e.g., Evans et al. 2012; De Sa und Lock 2008). However, those efforts might be offset by compensatory behavior of children at other times of the day. This holds especially as children have a considerable amount of money at their disposal. Much of this is spent on food, especially on energy-dense, nutrient-poor (EDNP) products (Borradaile et al. 2009; Cash and McAlister, 2011). Measures such as regulating food advertisements to children as well as the implementation of fat or sugar taxes acknowledge the direct and indirect economic activities of young consumers. The former is motivated by the fact that food advertising and branding of products directed at children are omnipresent, address children via different media and are primarily used to promote EDNP products (regarding TV advertisement see e.g. Batada et al 2008; Calvert 2008; Gantz et al. 2007; Hastings et al. 2006; Matthews et al. 2005; regarding online-marketing see e.g. Alvy and Cavert 2008; Calvert 2008; Culp et al. 2010; Lee et al. 2009; Lingas et al. 2009; Mallinckrodt and Mizerski 2007; regarding product packaging see foodwatch 2012; Harris et al. 2009a; Harris et al. 2009b; Maschkowski et al. 2014; Mehta et al. 2012). Furthermore, this widespread food marketing has been shown to influence children's food preferences and consumption patterns (IOM 2006; Harris et al. 2009; Mehta et al. 2012; McNeal and Li 2003; Boyland and Halford 2012; Cairns et al. 2012; Elliott 2008; Keller et al. 2012; Forman et al. 2009). By targeting food ads directly to children, companies strive to increase children's brand awareness and their emotional attachment to products (Connor 2006). Research shows that children as young as two to four years of age recognize brands (McAlister und Cornwell 2010; Valkenburg and Buijzen 2005) and that the branding of products has an influence on children's preferences and product choice (Robinson et al. 2007; Wansink et al. 2012; Forman et al. 2009; Keller et al

2012; Mallinckrodt and Mizerski 2007). Moreover, Forman et al. (2009) found that children's brand awareness was considerably higher for unhealthy food.

Regarding the relevance of price to children's food choice, the discussion is more heterogeneous. Some studies argue that prices might play a minor role in children's food purchase decisions as children have no long-term financial obligations, less market experience, less developed cognitive capacities, and rather impulsive behavior (Farrell and Shields 1997; Cash and McAlister 2014). Empirical research investigating children's price responsiveness focuses mainly on middle- and high-school children. Findings on the relevance of prices for children's food choice show that children react to prices and that price adjustments can induce unexpected substitution effects that are influenced by children's budgets. With respect to the purchase of EDNP products, the availability of attractive alternatives seems to be of greater relevance for children's food choices than price (e.g. French et al. 1997 and 2001; Brown and Tammineni 2009; Kocken et al. 2012; Epstein et al. 2006a; Epstein et al. 2006b).

Overall, the literature on children's price responsiveness and brand awareness is scarce. The former is especially true for younger children (elementary school). With the exception of a handful of studies that examine the ways in which cartoon characters and brand logos increase children's interest in healthy food products (e.g., Robinson et al 2007), relatively few studies have examined how branding might be used to increase the appeal of healthy foods among young children. To date, no study has investigated the interaction between the attributes price, brand and kind of product for children's purchase decision in an experimental framework.

Given this background, the following research questions guides the present study: What role do branding and price play in motivating children to choose healthier snack options.

Methodology

Data collection and survey instruments

The study involves quantitative and qualitative elements to investigate the food choices of children ages 8 to 11. The research took place in after-school programs of selected schools in the Boston area. The quantitative part of the study involved 116 children and consisted of three tasks: a survey, two cognitive tests, and a purchase experiment. First, children filled out a pencil-and-paper questionnaire (task 1), which asked about their pocket money / allowance and on what/how they spend it, their food preferences and consumption habits, their knowledge and liking of brands, their nutritional knowledge as well as information on demographic characteristics such as age and gender. This was followed by two cognitive tests (task 2). These cognitive tests included a circle-tracing test that measures impulse control and the calculating capacity diagnostic (RZD 2-6 subtest 5; Jacobs and Petermann 2005) to determine children's context related evaluation of quantities. Data from the two cognitive tests are not analyzed in the present study. Children were then provided with a small remuneration ($2.00) for their participation up to that point. In the third task - an incentive-compatible discrete choice experiment (DCE) - children were given a choice between two products, along with a "no purchase" option. Products differed on three factors, namely, healthfulness (i.e. chocolate chip cookie as less healthy snack option, apple slices and Go-gurt style strawberry tube yogurt – a tube of drinkable yogurt – as healthier snack options), brand (i.e. McDonald's or generic), and price (i.e. $0.30, $0.50, or $0.70) (see Table 1). McDonald's was selected as the brand of interest here as previous studies confirmed children's high awareness of the McDonald's brand (e.g., Forman et al. 2009). The "no purchase" option was included as it allows children to opt-out if none of the snacks looked appealing to them or if they were too expensive. Omission of the opt-out possibility might lead to biased results as it forces kids into making a choice that they would not make in the market place.

Table 1. Attribute and attribute levels used in DCE

Attributes	Levels
Product	1. Chocolate Chip Cookie 2. Apple Slices 3. Strawberry Tube Yogurt
Brand	1. McDonald's 2. Generic
Price	1. 0.30 US Dollar 2. 0.50 US Dollar 3. 0.70 US Dollar

The combination of all attributes and levels in the study resulted in 18 (3*2*3) possible profiles and thus 324 potential choice pairs. Such a full factorial design is impractical in terms of respondent fatigue and not appropriate for use with children whose attention spans are limited. Thus, a fractional orthogonal *D-optimal* choice experimental design was generated from the attributes and attribute levels using NGENE software package version 1.1 (ChoiceMetrics, 2014). The experimental design used had a D-error[1] (or its inverse, D-efficiency or D-optimality) of 0.142 and consisted of 10 paired choices. Those were presented to each student via picture cards with the products displayed in their real size. We manipulated some of the images so that the products only differed with respect to those attributes investigated in the experiment (e.g., nutrition claims were removed from packaging). An example of the choice tasks presented to children is illustrated in Figure 1. At the end of the simulation, one of the choices the child had selected was randomly chosen, and the child had to buy this food item. Before starting the purchase experiment children were trained so that they understood the binding nature of their choice, to ensure incentive-compatibility of the choice task.

[1] Huber and Zwerina (1996) pointed out that when the four criteria of orthogonality, level balance, minimal overlap, and utility balance are jointly satisfied, then an experimental design with a minimal D-error can be achieved.

Prior to the quantitative study, we pretested the brand, price range, and products selected for the discrete choice analysis through two focus group discussions with children of the same age, in order to assist us in designing a reasonable attribute set. In addition, the perceived similarity of manipulated product pictures with the real products was investigated.

	Option A	Option B	Option C
Product	Chocolate Chip Cookie 	Apple Slices 	None
Price	$0.30	$0.70	
I would choose →	☐	☐	☐

Figure 1. An example of DCE choice task

Statistical analysis

Discrete choice experiments (DCE) have become an established tool for obtaining insights into consumer preferences and are nowadays also extensively applied in environmental, medical and political research. So far, however, this method has hardly been employed in studies involving children (Cash et al. 2013). The method of DCE is based on Lancaster's (1966) new demand theory, which assumes that consumers derive utility from the underlying characteristics of a product or a service, and on the Random Utility Theory (RUT) introduced by Thurstone in 1927 and extended by McFadden (1973).

In this study, children's preferences for different snack products are analyzed based on a series of snack purchase choices, each with different choice pair combinations and an opt-out alternative. Accordingly, latent, unobservable utility (U_{itj}) associated with child *i* for alternative j in the choice task t is decomposed into a deterministic (X_{itj}) and a stochastic portion (ε_{itj}):

$$U_{itj} = \beta_i X_{itj} + \varepsilon_{itj} \quad (1)$$

where X_{itj} is a vector of observed variables, β_i is a vector of individual-specific parameters reflecting the degree of the attributes preference, and ε_{itj} is the independent and identically distributed error term representing the unexplainable component. In line with the RUT, it is assumed that child i maximizes his or her utility by selecting a snack product j from the set of choices t that provides her/him the greatest utility.

We estimated five different choice models. DCE data are first analyzed using the aggregate-level logit model over the whole sample, as a partworth main effect model. Calculated partworth utilities reveal information on the values the children assign to each attribute level and thus provide a general picture of children's snack preference. However, in aggregate-level logit models error terms are under the assumption that the unobserved stochastic portions are distributed according to a Type I extreme value distribution. Thus, the coefficients of variables that enter the model are identical for all participants in the study, implying that children with the same observed characteristics have the same values for each factor of the model. Furthermore, for aggregate-level logit models the 'independence from irrelevant alternatives' (IIA) assumption holds implying in our study that the odds of choosing snack 1 over snack 2 should not depend on whether some other snack 3 is present or absent (Train, 2009). The second model (Model 2), the hierarchical Bayesian inferences of random effect logit model, was applied to overcome the aforementioned limitations. It was utilized to arrive at partworth utility values taking into account the heterogeneity of children regarding their preferences for snacks (Train and Sonnier, 2005; Train, 2009). Third, a latent class analysis (LCA; Model 3) was conducted to uncover children's preference heterogeneity at the segment level. The LCA is similar to the random effect logit model in that both approaches incorporate heterogeneity in respondents' preferences on attributes. While the random effect logit model assumes a continuous distribution of the parameters to introduce heterogeneity, the LCA derives

heterogeneity from different segments, with each segment having its own parameters (Train, 2002; Boxall and Adamowicz, 2002). Models 4 and 5 are again aggregate level logit models with the former differentiating children according to who does or does not receive an allowance (Model 4a and Model 4b) and the latter including covariates such as liking of McDonald's and liking the products under investigation (Model 5).

Results

Focus Groups

Eight children took part in the two focus group discussion. The results reveal that children know McDonald's and recognize the selected McDonald's products. The stated opinion regarding this fast food brand was generally (though not entirely) positive. The children considered the selected products - apple slices, strawberry tube yogurt and chocolate chip cookies - as attractive for purchase though not each child was interested in each of the presented products. In both focus groups, children expressed an especially high preference for apple slices. In a hypothetical question regarding which of the three snacks they would buy most of the children specified apple slices. This was true for apple slices from the generic brand and the McDonald's ones alike. At the end of the focus group discussion, children were invited to select one of the six products (three snacks, each from a generic brand and from McDonald's) to take home. Most children chose the chocolate chip cookie, counter to their earlier stated choice. When confronted with this inconsistency between their stated preference (apple slices) and their revealed preference (chocolate chip cookies), children mentioned various reasons such as already having had fruits as an afternoon snack or that in the moment they felt like having a cookie. Regarding brand, children opted largely for the McDonald's version of the respective product. The focus group discussion also served as a means to gain insights into children's willingness to pay for the different snack products. We provided in this respect no price anchor to the children but instead asked them to note on a piece of paper how much they would be

willing to pay for the respective products. Prices ranged considerably. However, of those children interested in buying a respective product, most were willing to pay between $0.50 and $2.00 for each of the six products. Finally, one of the aims of the group discussion was to check whether our manipulated pictures of the products would lead to a disappointment at the level of the children once they saw the real products or would change their preference ranking. This, however, proved not to be the case. Thus, in conclusion the focus group discussion confirmed the appropriateness of the design of the quantitative study and only resulted in minor modifications of the overall research design (adding some additional questions to the questionnaire e.g. regarding the snack consumed that specific afternoon).

Experiment

A total of 116 children took part in the quantitative survey. Of these only 101 respondents, (87.1%) met the two criteria for being included in data analysis. These criteria were (a) there were no missing data across all 10 trials of the choice task and (b) the child chose a product (as opposed to a "neither") response on at least one trial. Regarding demographics, children were on average 9.3 years old (SD: 0.922) and girls were overrepresented in the final sample (56.4% girls, 38.6% boys and 5.0% missing values).

The majority of children (58.4%) stated that they enjoy going to McDonald's (options: like, do not like, don't know). Most children said that they like or even "like a lot" those products we selected for the choice experiment (top 2 boxes on a five point Likert scale: 83.2% chocolate chip cookies; 79.2% sliced apples; 55.5% strawberry tube yogurt). The majority of children (62.4%) receive allowance from their parents and 25.7% of kids obtain it on a regular basis. Moreover, only 3.0% of the children indicated that they have no experience in buying food, 15.8% only spend their money if an adult is present, and 41.6% state that they ask for permission before spending their allowance (but are not required to have an adult present), while 30.7% of the interviewed children can allocate their spending money on their own.

Table 2. Sample structure and descriptive information

Number of respondents	101	
	Freq.	**(%)**
Gender		
Male	39	38.6
Female	57	56.4
Missing	6	5.0
Age		
8 years	20	19.8
9 years	43	42.6
10 years	26	25.7
11 years	12	11.9
Get Allowance		
No	35	34.7
Yes	63	62.4
Missing	3	3.0
What is true regarding purchase decision		
No experience in buying food	3	3.0
Purchase only if adult present	16	15.8
Ask for permission but purchase alone	42	41.6
Decide on my own what I purchase	31	30.7
Missing answer	9	8.9
Like to go to McDonald's		
Yes	59	58.4
No	40	39.6
Don't know	2	2.0
How much do you like the following food items (Top 2 boxes on a 5 point Emoticon scale from like it a lot to don't like it at all)		
Chocolate Chip Cookies	84	83.2
Apple Slices	80	79.2
Strawberry Yogurt	56	55.5

The empirical models estimated in this study are based on the choice experiment structure depicted in Table 1. The results for the aggregate-level logit models are illustrated in Table 3. According to the results of model 1, only product type and brand proved to be significant at the 5% level. The price coefficient is negative but insignificant. The positive sign for chocolate chip cookies (positive main effect 0.65) shows that children preferred this snack product compared to apple slices and strawberry tube yogurt (negative main effect, -0.23 and -0.42,

respectively). Surprisingly, the coefficient of McDonald's is negative, implying that children are willing to pay a premium for the generic brand compared to McDonald's.

Table 3. Aggregate-level logit and random effect logit model

	Model 1 Aggregated logit model			Model 2 Random effect logit model			
N	**101**			**101**			
RLH	**0.365**			**0.597**			
Average Utilities (Zero-Centered measure)	**Effect**	**Std Error**	**t Ratio**	**Average Importance**	**Standard Deviation**	**Average Utilities**	**Standard Deviation**
Product type				56.60	19.98		
Cookies	0.65	0.08	7.80			65.79	81.35
Apple slices	-0.23	0.09	-2.59			-20.63	48.44
Strawberry yogurt	-0.42	0.11	-3.64			-45.16	53.89
Brand				22.77	14.33		
McDonald's	-0.15	0.08	-1.93			-19.11	35.66
Generic	0.15	0.08	1.93			19.11	35.66
Price	-0.12	0.09	-1.44	20.63	15.70	-11.40	37.28
None	0.15	0.07	2.02			12.87	156.92

The random effect logit analysis[2] (Model 2; Table 3) that considers heterogeneity in preferences for primary school students' snack choice confirms the findings of the aggregate logit model: the product category has on average the highest relative importance (attribute importance: 56.60%), followed by the brand (attribute importance: 22.77%) with the price being of least importance (attribute importance: 20.63%). Children showed by far the highest preference for cookies while strawberry tube yogurt was the least preferred product type. As already revealed by the results of the Aggregate Logit Model children were not in favor of McDonald's labeled products.

Though the random parameter logit model (Model 2) considers preference heterogeneity of children, it does not reveal the driving forces of heterogeneity. To explore the existence of

[2] In model 2, for comparability partworth utilities are reported as rescaled normalized zero-centered measure.

different market segments we investigate preferences for different groups of children based on a LCA (Models A1a to A1c in the Appendix), by differentiating children according to whether they obtain an allowance or not (Models 3b and 3c) and by including covariates. The LCA reveals three distinct segments of young consumers. However, given the small overall sample size of 101 children and accordingly the small size of each segment, the results of this analysis seems less meaningful and are not discussed further here (see Appendix for model results).

Estimating a linear main effects aggregate level logit model for the whole sample (Model 3a; Table 4) confirms the previous results of the respective partworth model (Model 1). Segmenting the sample into two groups, one with children who receive allowance (Model 3b) and the other consisting of children who do not (Model 3c), reveals that in this case also price is significant (children with an allowance at the 10% level; children without an allowance at the 5% level). However, while the coefficient for price is as expected negative in the case of children that receive an allowance, it is positive for the other group – suggesting that children who do not receive allowance do not fully understand the implication that a higher price has for a budget constraint. The explained variance is in the two sub-models with 6% (Model 3b) and 7% (Model 3c) not better compared to the aggregate model (7% in Model 3a).

Table 4. Aggregate Level Logit Models (whole sample, getting allowance, not getting allowance) (Models 3a to 3c)

	Model 3a Total sample N=101			**Model 3b Getting allowance n=63**			**Model 3c Not getting allowance n=35**		
Log likelihood for the initial model	-1928.64			-1203.01			-668.34		
Log likelihood for the restricted model	-1803.19			-1128.03			-620.08		
Pseudo R2	0.07			0.06			0.07		
LR test	250.9			149.96			96.52		
	Coef.	**SE**	**P-Value**	**Coef.**	**SE**	**P-Value**	**Coef.**	**SE**	**P-Value**
Constant	-0.73	0.07	0.00	-0.72	0.08	0.00	-0.81	0.11	0.00
Product	-0.65	0.05	0.00	-0.58	0.06	0.00	-0.72	0.09	0.00
Brand	0.77	0.06	0.00	0.82	0.08	0.00	0.73	0.11	0.00
Price	0.02	0.05	0.72	-0.09	0.06	0.10	0.18	0.08	0.02

Finally, the aggregate level logit model for the whole sample (Model 3a) is extended by

- including children's stated preference for the brand McDonald's and for the different products;
- linking stated preferences for the brand to the attribute brand, and for the specific product (e.g. liking of chocolate chip cookies) with the attribute level of product (e.g. chocolate chip cookies).
- considering whether children obtain allowance and linking this variable with the attribute price.

The results illustrated in Table 5 reveal that controlling for (dis)liking of products and brands leads to significant main effects for all three attributes with the one for product being negative confirming that chocolate chip cookies is liked most compared to apple slices and strawberry tube yogurt. Brand reveals a significant positive sign pointing to the preference of children for the generic branded product and price is highly significant and negative. In addition, interaction

effects are highly significant (1% level) or in the case of price linked to getting an allowance significant at the 10% level. The latter implies that those kids obtaining allowances are more price-sensitive than kids who do not receive an allowance. The former indicates that e.g. children stating that they liked a specific product (e.g. chocolate chip cookies), or liked McDonald's have a higher probability to choose that specific product or brand if a choice set with that product or brand being presented. Extending the model by including the interaction effects increases the explained variance (e.g. Pseudo R square 0.09 from previously 0.07).

Table 5. Aggregate Level Logit Models with covariates and interaction (Models 5)

	Model 5 N=101		
Log likelihood for the initial model	-1814.07		
Log likelihood for the restricted model	-1644.73		
Pseudo R2	0.09		
LR test	338.66		
	Coef.	**SE**	**P-Value**
Constant	-0.16	0.37	0.66
Product	**-0.68**	0.16	0.00
Like Choc. Chip Cookie (1= Yes (Top 2 Boxes))	**-0.15**	0.05	0.00
Like Apple Slices (1= Yes (Top 2 Boxes))	-0.07	0.05	0.16
Like Strawberry Tube Yogurt (1= Yes (Top 2 Boxes))	-0.05	0.03	0.14
Product Choc. Chip Cookie * Like Choc. Chip Cookie	**0.48**	0.07	0.00
Product Apple Slices * Like Apple Slices	**0.37**	0.06	0.00
Product Strawberry Tube Yogurt * Like Strawberry Tube Yogurt	**0.41**	0.09	0.00
Brand (0= McDonald's)	**0.50**	0.19	0.01
Like to go to McDonald's (1= Yes)	**0.24**	0.12	0.05
Brand * Like to go to McDonald's	**-0.24**	0.09	0.01
Price	**-0.25**	0.10	0.00
Get allowance (1= Yes)	0.16	0.13	0.22
Price * Get allowance	**-0.13**	0.08	0.09

Discussion and conclusions

The aim of the present study was to investigate the role of branding and price in motivating children to choose healthier snack options. The results showed that children's purchase decisions are primarily determined by product type with most children showing a high and significant preference for chocolate chip cookies. Our results reveal that liking is of considerable importance for the product type children choose, a finding that is in line with previous studies. Brug et al. (2008), De Bourdeaudhuij et al. (2008) and Rasmussen et al. (2006) found a positive association between liking and consumption of F&V. McKinley et al. (2005) also stress the relevance of taste and product liking for children's product choice. The authors show in their qualitative study that children seem to be especially "reluctant to 'risk' spending their money on something that was not guaranteed to taste good" (McKinley et al. 2005, p. 547).

Surprisingly, the generic product variants are preferred over the McDonald's products across the whole sample. Though there was a 100% awareness regarding the brand McDonald's among the children, about 40% of the children in our sample do not like to go to McDonald's.[3] Our findings indicate that for children's purchase decision awareness of a brand is not enough but the brand needs to be attractive and liked by the children to motivate them to buy the respective product. In fact, children have a preference for an unknown generic brand compared to a well-known one such as McDonalds if they dislike the brand. However, children liking McDonald's is positively associated with their choice of products of this brand.

The role of prices in children's food purchase decisions reveals a rather heterogeneous picture. Prices prove to be insignificant in all models not controlling for whether or not children obtain allowance. Splitting the sample into children that receive an allowance and those who do not reveals that both groups are price sensitive but only the former group as expected. Children

[3] This high share is likely not representative for all US kids at the age of 8 to 11 but might be due to the location (Boston area) the study has been carried out.

receiving allowance have as expected a negative price reaction implying that higher prices lead to lower consumption. In contrast, children that do not receive an allowance seem to react irrationally in that higher prices induce higher consumption. These results indicate that the extent of children's experience with money influences their price responsiveness. In fact, previous studies indicate that allowances can play an important role in developing budgeting skills with children that receive an allowance being more capable in dealing with money (Abramovitch et al. 1991).

Several of our findings have relevance for policy intervention as well as for family practitioners. First, it is not simple brand awareness but a child's liking of the brand what determines whether a brand is successful in motivating a child to choose a product and potentially a healthier option. Second, the extent of children's experience with money influences their price responsiveness. In this respect price seems to play an essential role for children receiving allowance. To the extent that those are primarily the once buying food snacks, higher prices for EDNP snacks could be successful in motivating children to choose the healthier option.

The findings of this study should be interpreted with attention to a few limitations. First, our analysis is limited to one known brand (McDonald's), a rather small price range and a specific budget the children can use. For a better understanding of the relevance of brand and price in children's purchase decision for a specific snack additional investigations are needed varying the budget available to the children, the prices of the products as well as the product. Second, the results obtained in this study are not representative of all American children ages 8 to 11, as we relied on a convenience sample from after-school programs in Boston suburbs.

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Appendix:

Latent Class Analysis (Models A1a to A1c)	**McDonald´s critical and health lovers**				**Cookie Lovers**				**Either opt-out or cookie supporters**			
Segment Sizes	**22.7%**				**38.5%**				**38.8%**			
	Attribute impor-tance	**Utilities**	**SE**	**t-ratio**	**Attribute impor-tance**	**Utilities**	**SE**	**t-ratio**	**Attribute impor-tance**	**Utilities**	**SE**	**t-ratio**
Product type	52.87				73.50				65.52			
Cookies		-97.94	0.17	-2.68		143.87	0.19	8.52		123.88	0.18	4.43
Apple slices		60.66	0.20	1.39		.62.24	0.22	-3.37		-51.18	0.18	-1.81
Strawberry yogurt		37.28	0.23	0.75		-76.63	0.28	-3.09		-72.69	0.24	-1.95
Brand	26.93				23.52				11.51			
McDonald's		-40.40	0.15	-1.23		-35.28	0.19	-2.04		-17.27	0.16	-0.69
Generic		40.40	0.15	1.23		35.28	0.19	2.04		17.27	0.16	0.69
Price	20.20	-30.30	0.16	-0.86	2.98	4.47	0.23	0.22	22.96	-34.45	0.18	-1.26
None		-236.07	0.19	-5.65		-129.97	0.24	-6.04		267.11	0.13	12.98

According to the Latent Class Analysis, three distinct segments can be identified: the cookies lover (38.5%), the either opt-out or cookie supporters (38.8%), and the McDonald's critical and health lovers (22.7%), with the latter having a significant aversion to choosing the cookies. For all three groups the product category is (by far) the most important attribute accounting for 73.5% in the first, for 65.5% in the second group and for 52.9% in the third segment of overall attribute importance. Price proves to be again insignificant for all three groups though the relative importance of price considerably differs between the three segments (from 3.0% for the cookie lovers to 20.2% for the McDonald's critical and health lovers and 23.0% for the either opt-out or cookie supporters). Also in these models children in all three segments seem to have a preference for the generic brand, though brand proves only significant for the group of the cookie lovers.