Healthy eating in children and celebrity Athlete Endorsement: the effects of congruence, age and healthiness of the product.

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A Project carried out on the Children Consumer Behavior Field Lab under the supervision of Professor Luisa Agante

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Healthy eating in children and celebrity Athlete Endorsement: the effects of congruence, age and healthiness of the product.

Abstract

The purpose of this study is to understand the effects of celebrity athlete congruence with the endorsed product on children, and if it can be used to promote healthy eating. We analyzed the sensibility of children to the concept of congruence, their understanding of the persuasive intent, and if their exposure to an advertisement containing a celebrity athlete and a healthy food product has an effect on attitude toward healthy eating and intention to eat healthy. Research was conducted on children aged 6 to 11 years old, and a structured questionnaire was completed by a sample of 130 children. Results suggests that children 6 to 11 years old are sensible to the concept of congruence, and that celebrity athlete endorsement can influence children toward healthy eating. Furthermore, results show that children this age understand the persuasive intent in both healthy and unhealthy ad exposure.

Keywords: Celebrity athlete, Congruence, Children, Healthy eating.
Introduction

Obesity among children as reached such a worrying point that more and more research is conducted to try to find ways to reverse this trend. While many factors are responsible for children obesity such as a bad diet or a lack of physical activity, marketing, e.g. through advertising, is also responsible for encouraging children to eat the most advertised products, mostly unhealthy products (Dennison and Edmunds, 2008; KFF, 2007).

In today’s consumer society, sponsoring practices are everywhere. Businesses recognize the importance of sponsorship as part of their marketing strategies, with investment on sponsoring increasing every year (IEG, 2014). A common practice among sponsorship is the use of Celebrities. The objective for the brand is to associate its image to the celebrity’s image for communication and advertising purposes (Kamins and Gupta, 1994). Existing literature on the subject refers to ‘image transfer’ to explain why celebrity endorsement is a sustainable practice (Gwinner and Eaton, 1999; Kim and Na, 2007). The conducted researches have outlined the importance of a match-up between the brand or product and the celebrity used to endorse it (Khale and Homer, 1985; Keller, 1993). While it is proven that this concept of congruency explains why celebrity endorsement campaigns that fulfill this criteria work, little is known about the effect of this concept when it comes to advertising on children. The upcoming generation being more and more exposed to the influence of the media and therefore to the businesses marketing and communication strategies, it is necessary to understand the mechanisms that make the concept work with children.

Celebrity athletes are widely used to promote all kind of products through endorsement deals, and are also perceived as role models in today’s society (Jones and Schumann,
They are seen as attractive (Friedman and Friedman, 1979) and it is safe to say that they must have a good diet themselves in order to be physically fit and efficient in their professional activity. Paradoxically, when it comes to food advertisement, recent studies has outlined the fact that celebrity athletes mostly endorse for ‘non-healthy’ products that are high in calories and sugar and poor in nutrients (Bragg et al, 2013; KFF, 2007).

This research focuses on the effects of congruency between celebrity athletes and healthy food on children. The first part of this study will focus on the relation between the impact of congruency and age, to determine firstly if children are sensible to the concept, and what is the importance of congruence, as children grow older and develop as a consumer. Then, the congruency between celebrity athletes and healthy food will be tested on children to determine if it can be a successful way to promote the consumption of healthy food products. In this study, the main goal is to put the child interests first and to look out for ethical solutions to advertise products that can improve their lifestyle. Finally, this research can also help businesses understand and capture a target that has a huge potential for becoming lifetime customers without loosing sight that they are also responsible for improving children’s condition as a customer and as a human being.

**Literature review and research hypothesis**

**Sponsoring and the concept of congruence:**

‘Sponsorship may be defined as investments in causes or events to support corporate objectives (for example, by enhancing corporate image) or marketing objectives (such as increasing brand awareness)” (Gardner and Shuman, 1988, p44). A significant part of
the marketing expenditures in companies all around the world is dedicated to sponsoring. Even in the actual economic context where companies are very cautious with all their budgets, sponsoring expenditures are still growing every year. In North America, total sponsoring spending grew from $18.1 billion in 2011 to $18.9 billion in 2012, and to $19.8 billion (+4.5%) in 2013. This increasing tendency can also be found on a global scale with a 3.9% rise from $51.1 billion to $53.1 billion between 2012 and 2013 (IEG, 2014). This constant growth proves the importance given by companies to sponsoring as part of their marketing strategy. Sponsoring can be found in various forms such as sole individuals, teams, events, organizations, and in many activities such as entertainment, causes, arts and sports that accounted for 70% of all spending in sponsoring in North America in 2013 (IEG, 2014). In this research, the intent is to study one particular form of sponsoring, the athlete celebrity endorsement. A celebrity endorser has been defined by McCraken (1989, p310) as ‘any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement’. A complementary definition states that ‘celebrity endorsers are actors, athletes, or entertainers who are known to the public for their achievements (Friedman & Friedman, 1979, p63). Children, who represent the new generation, are more and more exposed to sponsoring and celebrities through all kinds of media. This creates a real need for a better understanding of the impact it can have on them and if it is possible to use this knowledge for positive solutions (the ones that improve their lifestyle).

Past researches continuously focused on the mechanisms and reasons that actually make sponsorship work. Keller (1993) stated that when a brand enters into a sponsorship deal with a celebrity, the perception of the celebrity in the consumer’s mind is transferred to
the sponsored brand. McCraken has also studied the subject from a ‘meaning transfer’ standpoint, stating that ‘the effectiveness of the endorser depends, in part, upon the meanings he or she brings to the endorsement process’ (McCraken, 1989, p312). This perspective is improving past models, such as the source credibility model based on the endorser’s ‘expertness’ and ‘trustworthiness’ developed by Hovland (McCracken, 1989, p310) and the source attractiveness model developed by McGuire. The meaning transfer perspective takes into account more parameters than the models developed by Hovland and McGuire such as social status, personality and lifestyle types (McCraken, 1989) to explain the success or the failure of a sponsorship action. To sum this up, instead of relying on few defined characteristics, the meaning transfer model suggests taking what the endorser represents to the general consumer as a reference. The fit between the endorser and the brand or product represented has been the subject of many researches (Kahle and Homer, 1985; Kamins, 1990; Lynch and Schuler, 1994). Those researches have outlined that endorser-product fit lead to improvements in the attitude toward the brand, enhanced the credibility of the endorser and improved brand recall (Gwinner and Eaton, 1999). Most of the researches about the concept of congruence have been conducted from a broad and general standpoint and allowed to draw positive conclusion. Few researches however, have studied the possible impact of congruence when targeting children in order to find out if positive solutions can be implemented.

**Age and children development as a consumer:**

This research focuses on children from 6 to 11 years old. The reason behind this choice is that it corresponds to the concrete operational stage in the Piagetian structures and processes (Greig, Taylor and MacKay, 2007). At the beginning of this stage, the development of the left-brain takes place, among with the development of the child’s
intellect, logic and reasoning (Acuff and Reiher, 1997). It is also at this point in their lives that children start to discover reality and what are the right things to do. At this particular age, children start to pay more attention to details and other characteristics of the products and do not accept others' points of view straightforward (Acuff and Reiher, 1997). Between 6 and 11 years old, they are still impressionable and quick to attach themselves to celebrities and sports heroes’. Another fact to consider when talking about children from 6 to 11 years old is that they become more and more sensible to the social dimension and peer recognition as Acuff stated ‘what’s in, what’s cool, and what looks good to his peers’. From a consumer development standpoint, it also marks important changes and phases of development. According to McNeal (2007), from 6 years old to 8 ½ years old, children are in the final stage of consumer development. By the time they reach the 100-month mark (8 ½ years old), most children have reached independent purchase. McNeal (2007, p279) also stated that ‘like adults, they also rely on the marketplace-advertisements, television programming, promotions, packaging, and products that are targeted to them […] to understand who they are and how they should behave’. To summarize, it is during the ‘concrete operational stage’ of Piaget (from 6 to 11 years old) that children are able to make independent purchase decisions, are sensible to advertisement and marketing as well as the influence of celebrities and of their peers. Based on that we hypothesize:

**H1.a: Celebrity endorser – Product congruence is important for children**

Since children develop during this age range the ability to evaluate better the advertising features, such as the congruence of the celebrity with the product, we hypothesize that:

**H1.b: Celebrity endorser – Product congruence will be more important for children, the older the child is.**
Product healthiness:

One of the objectives in this research is to determine whether or not, the use of congruency in celebrity endorsement can be a key factor to improve children’s condition. We focused on: if it can encourage them to turn toward healthy products such as healthy food, as they enter in a critical time in their lives as they construct themselves as persons and consumers. In the past 30 years, obesity doubled among children, and if we take a closer look at children aged 6 to 11 years old, the percentage of obese children increased from 7% in 1980 to nearly 18% in 2012 (Centers for Disease Control and prevention – CDC, 2014). Obese children are subject to an increased risk of multiple pathologies, and conditions that will eventually take bigger proportions as they grow older and become adults. For instance, obese children are subject to type 2 diabetes, cardiovascular disease risk, skeletal health and mental health (Biddle et al., 2011). There is an extensive body of research regarding the influence of television viewing (screen time) on obesity among children. Even if some studies deny the existence of a correlation between both, as Pearson and Biddle (2011, p.178) recognize: ‘Overall, therefore, sedentary behavior in the form of screen time is implicated in youth overweight and obesity’. This is mainly due to the fact that while watching TV, little energy is consumed (Klesges et al., 1993) and children are exposed to commercials influencing their food choices (Dennison and Edmunds, 2008). A study conducted by the Kaiser Family Foundation outline that children of age 8-12 are seeing the most food advertisement on television with an average of 21 per day for a total exceeding 7600 per year. According to the same study, 34% of the commercials were for candy and snacks, 28% for cereals, and 10% for fast foods. None were for fruits or vegetables (KFF, 2007). We can define non-healthy food as products containing high
amounts of calories, saturated fat, sugar and sodium, while healthy products on the other hand, are those that contain fruits, vegetables, nuts, fiber and protein (Bragg et al., 2013). As stated previously, most of the endorsement deals with non-healthy food products (Bragg et al, 2013; KFF, 2007), which are not congruent with Athlete celebrity endorsers. However, Congruency between endorser and product has proven to be efficient. Athletes, as they need to maintain a certain lifestyle including a balanced diet in order to be efficient in their work are obviously meeting the criteria of congruence with healthy food products. The fact that they must eat healthy also preserves their credibility and trustworthiness. Furthermore, a recent study outlined the fact that parents associate food products (even when non-healthy) endorsed by celebrity athletes with higher healthfulness (Bragg et al, 2013). Therefore we hypothesize:

**H2: Celebrity athlete endorsement can influence children toward healthy food more than unhealthy food**

This study is concerned to preserving the children’s interests, and therefore we focused on their understanding of the persuasive intent to ensure the ethicality of the endorsement process. Young (1990) defined that children understand advertising and its persuasive intent if they recognize the source creating the advertisement and that the source’s intent is to persuade an audience to purchase (Young, 1990). In past studies, some findings indicate that children can understand advertising at the age of three (Donohue et al., 1980). Other studies state that this understanding is not evident until twelve years old (Kunkel and Roberts, 1991). However, many studies agree that the understanding of the persuasive intent starts between five and eight years old (Macklin, 1987; Kline, 1995; Chan, 2000). Therefore, since we are dealing with children from 6 to 11 years old, we hypothesize:
H3: Children will understand the persuasive intent of advertising for both healthy and unhealthy food.

**Methodology**

**Legal and ethical issues**

Both legal and ethical requirements were satisfied following UNICEF’s guidelines (UNICEF 2002). Consent from the French Education authorities, schools and parents were collected. Furthermore, the aim of the study and its content was explained to the children, and privacy rights such as confidentiality were respected.

**Sample**

As stated previously, this research was conducted with children between 6 and 11 years old, which correspond to Piaget’s concrete operational stage (Greig, Taylor and MacKay, 2007). At this age, children are able to understand and even rely on the strategies incremented by marketers such as advertising. Before this age, the child is not yet able of logical and abstract thinking (McNeal, 2007), and does not have the ability to understand the persuasive intent behind advertising messages (John, 1999). Furthermore, in children younger than 6 years old, functional characteristics such as taste or size of the packaging have more influence than other motives regarding food choices (Roper and La Niece, 2009). This research was conducted in a medium size city of France named Tours. Three different public schools located in the urban part of the city were selected, for a total of 7 classes from First grade (14,6%) to Fifth grade (16,9%). 142 questionnaires were collected, and 12 were discarded as they were not completely filled.
**Method**

For this study, the method used was structured questionnaires. Questionnaires can be quickly administered, to a large number of respondents, and allows obtaining factual data and opinions (Greig, Taylor and MacKay, 2007). It is also a method that reduces bias (Podsakoff et al., 2003). To increase honesty from the respondents and limit the social desirability effect, respondents were informed previously to answering the questionnaires that there were no right or wrong answers and that anonymity would be respected.

**Research Design**

The research consisted of an experiment with the sample being divided in two groups. The manipulated stimulus was the type of product promoted by the athlete celebrity endorser, with one group being exposed to the ad containing a healthy product and the other group was exposed to non-healthy food.

**Procedure**

We conducted a Pretest (Appendix 1) to select an appropriate celebrity athlete known by the target group (children aged 6 to 11 years old). A list of 5 celebrity athletes was presented to 9 children whom were asked to rank their favorite. Rafael Nadal was chosen 3 times out of 9 in this pretest and selected to create the fictitious ads.

We consulted a nutritionist to choose an appropriate healthy snack, and Pom’Potes\(^1\): a drinkable portion of mashed apples without added sugar and conservatives was selected. It corresponds to one portion out of the five fruits and vegetables recommended daily.

\(^1\) [http://www.materne.fr/produits/pom-potes/pompotes-sans-sucre](http://www.materne.fr/produits/pom-potes/pompotes-sans-sucre)
Each class was divided in two in order to reduce bias on the respondent selection. The first of the two groups was exposed to the stimuli, a fictitious ad including the celebrity athlete and the healthy snack Pom’Potes, before answering a questionnaire. The second group was exposed to a different fictitious ad including the same celebrity athlete and a non-healthy snack, a Twix bar.

Figure 1: Stimulus used in the experiment

Measures

To design the structured questionnaires, past researches and studies over the same variables were consulted. The questionnaires consisted in five different parts to evaluate Understanding of the persuasive intent, Sensibility to congruence, Attitude toward product, Attitude toward healthy food and Intention to eat healthy, besides demographics like Gender, School grade and Age. Both groups answered the same questionnaire, after being exposed to the stimuli described previously.

The first part of the questionnaires was set to test the understanding of the persuasive intent of the endorsement. Two question adapted from a previous study from Oates et
al. (2001) were used. The first question asked respondents to identify who they thought putted the brand logo on the image that they were given to see. Four possible answers were provided (Rafael Nadal, the teacher, the brand, and the option “other”). The second one asked children what the advertisement wanted them to do. Four possible answers were provided (play tennis, watch a Rafael Nadal game, buy the product in the ad, and the option “other”).

The second part of the structured questionnaires was designed to test the importance of congruency of the celebrity with the promoted product. Therefore, three crucial elements of congruency were tested: endorser compatibility, credibility and attractiveness. To do so, compatibility was tested using a two items, 5-point smiley semantic scale (low compatible – high compatible, not very adapted – very adapted) a scale adapted from Kim and Na (2007). Credibility was tested using a two items 5-point smiley semantic scale (I don’t believe him – I believe him, He tells lies – He tells the truth) a scale adapted from Lockwood and Kunda’s (1997) and Bower and Landreth (2001). Then, attractiveness was tested using a three items 5-point smiley semantic scale (Dissimilar – Similar, Unfamiliar – Familiar, Unlikable – Likable), a scale adapted from Caballero et al. (1989).

The third part of the questionnaire aimed at testing the attitude of the respondents toward the product. A three items, 5-point smiley semantic scale was used again, (Dislike the product – Like the product, Product is unpleasant – Product is pleasant, Product is bad – Product is good), a scale adapted from Russell and Stern (2006).

The fourth part tested the attitude of the respondents toward healthy eating. The same scale adapted from Russell and Stern was used (Dislike healthy food – Like
healthy food, Healthy food is unpleasant – Healthy food is pleasant, Healthy food is bad – Healthy food is good).

Finally, the fifth part focused on the intention of the respondents to eat healthy. A three-item 5-point Likert scale (1-Completely disagree to 5-Completely agree) asking respondents to rate the following: “I would like to eat more fruits and vegetables in the next two weeks”; “I will try to eat more fruits and vegetables in the next two weeks”; “I want to eat more fruits and vegetables in the next two weeks”. This scale was adapted from a previous study by Sangperm (2006).

Results

Collected data was analyzed, using SPSS 21. This research gathered answers from 130 children, equally distributed by gender (51,5% females), age (13,1%, 19,2%, 23,8%, 20,8%, 16,2%, 6,9% from 6 to 11 years old), grade (14,6%, 16,9%, 26,9%, 24,6%, 16,9%, from 1st to 5th grade) and group (46,2% exposed to the healthy product ad and 53,8% to the unhealthy product ad).

**H1.a: Celebrity endorser – Product congruence is important for children**

The aim of this first hypothesis was to grasp if children are able to seize the concept of congruence between endorser and product. To test this first hypothesis, a frequencies analysis was performed, using the means as a reference with a maximum possible score of 5. Congruence was measured using 3 constructs, each measured with two items: Compatibility, Credibility and Attractiveness (Table I).

On a scale from 1 to 5, respondents gave a positive evaluation of all the items (>3), being credibility the one that had the highest evaluations. With these results, we are led to not reject H1.a.
Table I: Mean scores of congruence

<table>
<thead>
<tr>
<th>Mean scores</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatible</td>
<td>Adapted</td>
</tr>
<tr>
<td>Believer</td>
<td>Tells the truth</td>
</tr>
<tr>
<td>Familiar</td>
<td>Likable</td>
</tr>
</tbody>
</table>

H1.b: Celebrity endorser – Product congruence will be more important for children, the older the child is.

To test this hypothesis, chi-square tests were performed crossing the congruence variables with age (either for the whole variable, as for the individual items – Table II). For compatibility, all results were significant at a 10% level of significance, and there is a low negative Spearman correlation between age and compatibility meaning that the older the child is, the less compatible it ranks the celebrity/product congruence.

Regarding Credibility and Attractiveness, none of the items was significantly evaluated differently by the different ages groups. These results lead us to reject H1.b, due to the fact that credibility and attractiveness have non-significant results even when we accept a 0,1 level of significance. Furthermore, on the compatibility aspect, even if results were found significant, the Spearman correlation values were all significant but negative and thus contrary to our hypothesis.

Table II: Chi-Square test results for compatibility, credibility and attractiveness, and age

<table>
<thead>
<tr>
<th>Chi-Square test (compatibility and age)</th>
<th>Compatible</th>
<th>Adapted</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>0,064</td>
<td>0,028</td>
<td>0,057</td>
</tr>
<tr>
<td>Spearman correlation</td>
<td>-0,211</td>
<td>-0,272</td>
<td>-0,275</td>
</tr>
</tbody>
</table>
H2: Celebrity athlete endorsement can influence children toward healthy food more than unhealthy food

To test this hypothesis, we crossed the variables attitude toward healthy eating or intention to eat healthy (both measured with 3 items) with product type (1 for the healthy product and 2 for the unhealthy product). As we can see in table V and VI, the differences are significant on almost all items, and we obtained low but significant negative correlations, indicating that the exposure to a different type of product has an impact on both attitude toward healthy eating and intention to eat healthy.

<table>
<thead>
<tr>
<th>Chi-Square test (credibility and age)</th>
<th>Believe</th>
<th>Tells the truth</th>
<th>Credibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>0.713</td>
<td>0.101</td>
<td>0.338</td>
</tr>
<tr>
<td>Spearman correlation</td>
<td>-0.135</td>
<td>-0.240</td>
<td>-0.199</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chi-Square test (Attractiveness and age)</th>
<th>Familiar</th>
<th>Likable</th>
<th>Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>0.16</td>
<td>0.238</td>
<td>0.144</td>
</tr>
<tr>
<td>Spearman correlation</td>
<td>0.103</td>
<td>-0.072</td>
<td>0.029</td>
</tr>
</tbody>
</table>

Table V: Chi-Square test results for attitude toward healthy eating (A.T.H) and product type (P.T)

<table>
<thead>
<tr>
<th>Chi-Square test (A.T.H and P.T)</th>
<th>Like to eat healthy</th>
<th>Eat healthy is pleasant</th>
<th>Eat healthy is good</th>
<th>Attitude toward healthy eating</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>0.005</td>
<td>0.105</td>
<td>0.025</td>
<td>0.079</td>
</tr>
<tr>
<td>Spearman correlation</td>
<td>-0.233</td>
<td>-0.240</td>
<td>-0.199</td>
<td>-0.195</td>
</tr>
</tbody>
</table>

Table VI: Chi-Square test results for intention to eat healthy (I.T.E) and product type (P.T)

<table>
<thead>
<tr>
<th>Chi-Square test (I.T.E and P.T)</th>
<th>Would like to eat healthy</th>
<th>Would try to eat healthy</th>
<th>Want to eat healthy</th>
<th>Intention to eat healthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>0.001</td>
<td>0.018</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Spearman correlation</td>
<td>-0.364</td>
<td>-0.213</td>
<td>-0.356</td>
<td>-0.360</td>
</tr>
</tbody>
</table>

Then, we performed a frequency analysis by product type to determine which type of product influences the most respondents toward healthy eating with means as a
reference. On all items of both attitude toward healthy eating and intention to eat healthy constructs, means are higher for respondents exposed to the healthy product than for those exposed to the unhealthy one (Table VII and VIII). To determine if these results obtained in the means were significantly different, we performed a T-Test. One item (Eat healthy is pleasant) was found non-significant, one item (Eat healthy is good) was found significant only at a 10% level of significance and all other results were found significant at a 5% level of significance. Thus, these results led us to not reject H2.

Table VII: Mean scores for attitude toward healthy eating (A.T.H) by product type

<table>
<thead>
<tr>
<th>Mean Score</th>
<th>Like to eat healthy</th>
<th>Eat healthy is pleasant</th>
<th>Eat healthy is good</th>
<th>A.T.H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy product</td>
<td>4,38</td>
<td>4,13</td>
<td>4,27</td>
<td>4,26</td>
</tr>
<tr>
<td>Unhealthy product</td>
<td>3,9</td>
<td>3,9</td>
<td>3,86</td>
<td>3,885</td>
</tr>
<tr>
<td>p-values for T-Test</td>
<td>0,021</td>
<td>0,316</td>
<td>0,059</td>
<td>0,048</td>
</tr>
</tbody>
</table>

Table VIII: Mean scores for intention to eat healthy (I.T.E) by product type

<table>
<thead>
<tr>
<th>Mean score</th>
<th>Would like to eat healthy</th>
<th>Would try to eat healthy</th>
<th>Want to eat healthy</th>
<th>I.T.E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy product</td>
<td>4,23</td>
<td>4,03</td>
<td>3,95</td>
<td>4,072</td>
</tr>
<tr>
<td>Unhealthy product</td>
<td>3,26</td>
<td>3,5</td>
<td>2,96</td>
<td>3,238</td>
</tr>
<tr>
<td>p-values for T-Test</td>
<td>0,000</td>
<td>0,027</td>
<td>0,000</td>
<td>0,000</td>
</tr>
</tbody>
</table>

H3: Children will understand the persuasive intent of advertising for both healthy and unhealthy food.

To test this last hypothesis, two items were used and a chi-square analysis was performed to cross answers on these items with the type of product. The first item, asked respondents to identify the source of the ad, and 80% of all respondents correctly answered “the brand”. On the chi-square test for this item, results were found non-significant** with a p-value=0,986>0,1. The second item asked respondents identify what the source wanted to do, and 60% answered, “buy the product”. Here again results on the chi-square test were found non-significant** with a p-value=0,627>0,1.
The results obtained led us to support H3.

**Discussion and implications**

The result obtained while testing hypothesis H1.a led us to support the fact that children are sensible to the concept of congruence. This is a fact that companies and even governments should acknowledge and use to promote products or programs serving children’s well being. However, by testing H1.b, results showed no positive correlation with the age of the respondents within the age group. This can be partially explained by the fact that the mean age in this survey is 8.28, which is still under the age of 8 ½ years old where children are supposed to reach the independent purchase stage (McNeal, 2007). By conducting further research on a larger scale and going beyond this age group, the accuracy of these results can be enhanced.

Regarding the influence of celebrity athlete endorsement on children toward healthy eating, the results obtained clearly indicate that respondents exposed to this type of advertisement are positively influenced to eat healthier and have a better image of eating healthy i.e.. Both attitude toward healthy eating and intention to eat healthy showed significant results. These results should be considered as a way to reverse the actual trend, which is to promote mainly non-healthy products through communication channels that are more and more used by this new generation. This can be a positive way to reduce obesity among children as well as several diseases and conditions that are associated. Limitations to overcome would be to study if the effects are still significant on the long term, and not biased by an intention to please or simply to act good on the short term. Conducting research on a larger sample would also make sense to support these results.
Finally, concerning the identification of the source of the ad and the understanding of the persuasive intent, 80% of the respondents identified the brand as the source of the ad and 60% of the respondents understood the persuasive intent by answering that the source of the ad wanted them to buy the product. While these results indicate that most of the respondents were aware of the marketing action behind the ad, they do not show any differences between the group exposed to the ad containing the healthy stimuli and the group exposed to the non-healthy stimuli. These results prove that the question of ethicality is equally answered within the two groups, and that such a practice does not hinder nor manipulates the children.

**Limitations and Future Research**

There are several limitations in this study. Firstly, it only covers the effects of celebrity endorsement through one particular type of advertisement, a paper ad. Studying the effects of a TV commercial may give interesting conclusions, as this is the main communication channel used by managers in the food industry, and also the media most used by children.

Furthermore, bias arising from the intention to please adults from the children’s part is something to consider in this study. Follow up questionnaires may be an efficient tool to consider in future research, to assess if the intention to eat healthy has led to an operational phase where the respondent exposed to the healthy ad has put in practice his good intentions and really proved the intention to eat healthy following the experiment.

Finally, this study was conducted only in one city in France. Thus, future research may consider expanding it to other regions and countries.
References:


