



## FOOD PROMOTION RESEARCH

Food marketing is omnipresent, affecting our dietary behavior in a significant and mostly negative way. The largest share of the food marketing budget is spent on energy-dense foods, that are high in salt, sugar and fat. Many scholars agree that this has led to an obesogenic environment, which stimulates becoming overweight and obese. More importantly, because energy-dense snacks, and marketing messages that promote these are everywhere (online and offline), it is very difficult for vulnerable groups, such as young children, to eat healthily. Therefore, it is needed to change our environment into a “healthygenic” environment, an environment that stimulates healthier food choices.

The articles included in this newsletter aim to develop this idea further, by bringing together important trends from different areas of study,

with state-of-the-art insights from multiple disciplines. The articles included are a summary of research conducted by interesting scholars, showing the way forward in scientific research on this topic. In addition, together with excellent researchers in the field of food marketing, we published a book about the effects of food marketing on people’s eating behavior, titled “The Psychology of Food Marketing and (Over) Eating”. The book integrates recent research and existing knowledge on food marketing and its effects on the eating behaviour of children, adolescents, and adults.

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# Improving advertising literacy and effectiveness

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*Children's vulnerability to food advertising has been the subject of social and political debate for many years<sup>1</sup>. Besides concerns over the negative side effects of food advertising on the wellbeing of children, there are also concerns about the honesty of advertising targeted at children. The biggest concern is that children are not yet capable of critically assessing food advertising. Compared to adults, children are thought to have less developed advertising literacy and, consequently, are more vulnerable to its impact<sup>2</sup>.*

## Advertising literacy and children's susceptibility to food advertising

It is often assumed that advertising literacy, which is the knowledge people have about advertising, its persuasive intent, and the advertising techniques that are used to target them, makes children less susceptible to food advertising. The rational underlying this assumption is the idea that the main defense against food advertising is a cognitive one and, therefore, knowledge on advertising's intent and tactics can function as a filter when processing food advertising messages. In this so-called cognitive defense view, children who possess the necessary knowledge of advertising will use this knowledge in order to critically process the ads they encounter, making them less susceptible to its effects, including advertised food product preferences and requests<sup>3</sup>.

## Empowering children through advertising education

A way to empower children to critically cope with food advertising is through advertising education<sup>4</sup>. Following the cognitive defense view, the purpose of most of the educational programs is to develop children's knowledge about the purpose and tactics of advertising and to provide critical thinking skills in order to make better educated decisions regarding the food products that are presented in the advertising. Research shows that advertising education programs can indeed be effective in enhancing children's understanding of and scepticism toward advertising. However, these studies also show that this increased understanding of advertising does not make children engage more in advertising coping strategies (e.g., formulate critical thoughts, activate avoidance strategies) nor does it decrease their liking of and desire for advertised products<sup>5</sup>.

Thus, having higher levels of advertising knowledge does not automatically enable children to defend against food advertising. Therefore, educational advertising interventions that focus primarily on increasing children understanding of food advertising's intent and persuasive tactics are unlikely to be effective in empowering children to defend against food advertising. Having knowledge of advertising is a necessary

precondition for children to defend against advertising, because it is only when they are able to recognize a message as a form of advertising that they will have the opportunity to defend against it. However, to cope with food advertising successfully, children also need to act on that knowledge by applying coping strategies through which they can regulate their responses to the advertisement and their food choice behaviour. Insights on children's advertising processing and cognitive development suggest that, due to the powerful emotional appeal of food advertising, combined with their immature cognitive abilities, children lack the motivation and ability to retrieve and apply their advertising-related knowledge while confronted with food advertising and choose a relevant coping strategy as a critical defense. Educational intervention programs should therefore not only increase their advertising knowledge, but also provide them with the ability and motivation to effectively engage their advertising coping strategies and successfully resist advertising for highly appealing but unhealthy foods.



## Empowering children through sponsorship disclosures

Another way to increase children advertising defenses, in particular with regard to embedded types of (digital) advertising (for example advergames and brand placement in vlogs), is to give a sponsorship disclosure alongside the advertising message. A disclosure can take various forms, such as an advertising break on television or a disclaimer identifying the presence of commercial content on a website or in a game. Sponsorship disclosures are assumed to empower consumers, both adults and children, because it may activate their awareness and knowledge of the commercial nature of sponsored media content<sup>6</sup>. Specifically, the warning can facilitate recognition of the commercial message and trigger children to think about the purpose of the sponsored media content. When they realize that this is to persuade, children may adopt a more critical attitude, which helps them to make more deliberate and autonomous decisions.

**Based on:** Esther Rozendaal, "Improving advertising literacy and effectiveness", in Frans Folkvord (Ed), The Psychology of food marketing and (over) eating, London and New York, Routledge "Taylor & Francis Group", 2020, pp. 76-93.

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# An experimental study to test a food promotion technique for fruits on children's intake

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Food marketing research has shown that advertising techniques are effectively increasing the intake of unhealthy foods, leading to the current obesity epidemic. Multiple studies have shown that exposure to cues of palatable foods can lead to their consumption by activating automatic eating responses. For example, cue reactivity theory explains these findings related to food marketing of unhealthy foods<sup>1,2,3</sup>. The theoretical model states that food cues that signal food intake may begin to act as conditioned stimuli that trigger cue reactivity or conditioned responses, such as cravings and actual eating behavior<sup>4</sup>. Less is known about the effects of promoting healthier foods, although the health-related benefits of eating more fruit and vegetables for children are well established. In addition, most studies on food marketing have focused their research on the effects of television food advertising, although the media landscape is rapidly changing to include novel digital and online media technologies as marketing tools<sup>1</sup>. One online form of marketing are advergames - free online games that integrate advertising messages, logos, and trade characters.

## An experimental study to test an online advergame promoting fruits on children's intake

The main aim of the present experiment was to examine if an online advergame promoting a fruit brand with food products increased subsequent fruit intake. In order to test this, a randomized between-subject design was conducted with 123 Dutch children (age: 7–13 y) who played an advergame that promoted fruits (n = 43), nonfood products (n = 40), or were in the control condition (n = 40). Subsequently, we measured the free intake of fruits as main outcome. The children then completed questionnaire measures, and we weighed and measured them.

## Association between playing online memory-game containing fruits and their intake

A total of 123 children participated (grades 2-6) from 3 primary schools in the Netherlands, of which 59.3% were girls. To measure fruits intake after playing the advergame, we allowed the children to eat *ad libitum* for 4 minutes. We weighed the amount of fruit that a child ate before each child entered the room and weighed again after eating. Results showed that playing the online memory-game containing fruits did not stimulate the intake of fruits, also when we took into account differences between gender and BMI levels. Children in the advergame with fruits ate similar amounts of fruits than children in the non-food advergame or control condition.

## Conclusion

Many research has shown that food marketing affects actual consumption, but the same effect is not found for healthier foods<sup>1,2,3</sup>. Future research should examine if mere exposure or different forms of food marketing are effective in increasing the intake of healthier foods. Until now, it is unclear if promotion techniques for healthy foods have an effect on the intake of healthier foods. In addition, future research is needed to understand the psychological mechanisms that can explain how priming of food cues through memory-games influences eating behavior in children in particular, experiments need to examine when and for whom these memory-games may increase healthy food intake. The obesogenic environment will not change rapidly into a healthier one, and stimulating children to consume fruit and vegetables via entertaining techniques like memory-games might be an addition to existing intervention approaches.



Based on: Theben, A. & Folkvord, F. (under review). An experimental study to test a food promotion technique for fruits on children's intake. *Appetite*.

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# InFLOOD: A study about the influence of food media on food consumption patterns in Flanders

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## The influence of celebrities, self-declared experts and laypeople on eating patterns

In 2012, a Belgian medical doctor published a book about dietary guidelines (De Voedselzandloper - Kris Verburgh). The book is considered controversial, and several scientists warn about its unreliable content, especially as the concept of “cherry-picking” is used to prove a certain conclusion. Yet, many people in Belgium and The Netherlands follow the guidelines of this book. Shortly after its first publication, popular media report that the sales of oats have increased with 30% because of this book<sup>1</sup>, while bread consumption decreased both in Belgium and the Netherlands<sup>2</sup>. Due to the ongoing diet-hypes that promote grain-free diets, smaller bakeries appear to struggle<sup>3</sup>, as well as larger industrial bakeries have ceased to exist<sup>4</sup>. These unscientifically underpinned diets have become very popular in many parts of the western world, also boosted by internationally known celebrities who endorse a grain-free diet. This all despite popular media warning that grain-free diets are not always the best options in terms of nutrition and health<sup>5</sup>.

This example highlights how today celebrities, self-declared experts and laypeople influence the eating pattern of their (often numerous) followers. At the same time, the abundance of often contradictory and non-evidence-based media reports about nutrition creates information overload and leads to confusion. Consumers increasingly struggle to “see the forest for the trees”.

## InFLOOD project

In this context, it is quite a challenge for the food industry and health organizations to communicate effectively about nutrition

guidelines. Our goal is to learn from the growing group of highly successful food influencers how we can better communicate about food and nutrition. As a group of academics, health organizations, food producers and media, we want to produce positive, powerful evidence-based messages about nutrition.

The concrete goals of InFLOOD are:

- Starting from an in-depth historical analysis to study the content of popular food media in relation to the Flemish food consumption figures;
- Zoom in on the role of celebrity status of popular food influencers;
- Developing communication strategies that use the discourse of the most influential food gurus (how to communicate) applied to evidence-based information (which message) about nutrition (guidelines);
- Setting up an independent communication platform on food and nutrition that refers to the various expert bodies.

The valorization of the project will be achieved via three routes:

- *Route 1:* Produce evidence-based output on the influence of food media on Flemish food consumption
- *Route 2:* Setting up a platform that forms the bridge between the food and media industry
- *Route 3:* Setting up an independent communication platform on food and nutrition that brings the consumer to the competent experts.



**Based on:** Pabian, S., Van Royen, K., & De Backer, C.J.S (under review). InFLOOD: A study about the influence of food media on food consumption patterns in Flanders. International Journal of Advertising.

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