

Ethics and packaging design: Marketing of sugary breakfast cereals to South African children

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Abstract

Child-orientated sugary breakfast cereals are a prominent product feature in the dry goods section of supermarkets. Scholars in health sciences and marketing have reported on these products' poor nutritional value and how marketers appeal to children through the use of persuasive television advertising and packaging design. This study presents a visual thematic content analysis of child-orientated breakfast cereal packaging available in local supermarkets. The results indicated that South African marketers use "friendly" and "welcoming" cartoon characters as the most prominent graphic element on breakfast cereal packaging. As such, marketers disguise unhealthy, high sugar content products behind cartoon characters and juxtapose these characters against bright background colours in order to be eye-catching to the young consumer. The packaging designs and themes depict fun, enjoyment as well as happy, upbeat families and even employ text and graphics to portray a healthy theme.

The themes employed as regards child-orientated packaging design and their marketing content do not harmonise with the Department of Health's (DoH) Strategic Plan 2014/2015-2018/2019. This plan, inter alia, aims to reduce childhood obesity, reinforce a healthy lifestyle, and improve health promotion and nutrition intervention. Child-orientated cereal packaging design is also in stark contrast to and in conflict with Guideline 14 of the 2014 Draft Regulations relating to the Labelling and Advertising of Foods. Guideline 14 provides a set of recommendations and regulations that will limit children's exposure to the marketing of certain foods. Marketers, for example, may not use an image of a happy, upbeat family to market unhealthy foods, and may not appeal directly to children.

This paper questioned the ethics of persuasive and misleading graphic and text elements to market sugary breakfast cereals to children. Furthermore, this paper questioned whether it is ethical to use design elements to present an unhealthy product in an appealing and attractive manner to children. It proposes that we need stricter (design) advertising self-regulatory codes, and that design educators should align design training with the spirit of local and international regulations.

Keywords: *Breakfast cereals, children, design ethics, packaging regulations, misleading marketing*

Introduction

In this paper we question the ethics of marketing unhealthy breakfast cereals to children through the use of misleading and persuasive graphics and texts. By means of a thematic visual content analysis, we determined the nature and extent of design techniques employed in, and themes portrayed on, the packaging of a number of identified breakfast cereals aimed at children.

Globally, children's food marketing is dominated by practices that promote foods that are high in sugar, salt and fat (Cairns, Angus, Hastings & Caraher 2013). These foods include breakfast cereals with a high sugar content, confectionery, soft drinks, savoury snacks and fast food (Ibid.). This is not surprising as children prefer fatty and sugary foods to healthier options such as fresh fruit and vegetables (Cooke & Wardle 2005). Marketers use television as their main promotional channel for

these foods and, to a lesser extent, printed media, the Internet and packaging (Hastings, McDermott, Angus, Stead & Thomson 2007). The packaging of the foods in question is typified by appealing graphics depicting cartoon characters from popular television programmes or movies as well as vivid colours, cartoonish fonts and competitions (Roberto, Baik, Harris, Brownell 2010; Harris, Schwartz & Brownell 2009; Elliot 2008). These graphics in turn are supported by thematic appeals to taste, humour, action-adventure, fantasy and fun (Cairns et al. 2013).

Breakfast cereal manufacturers, in particular, target both children and their parents. Breakfast cereal is one of the four leading food categories targeted at children globally (Cairns et al. 2013) and is also one of the food categories that South African marketers promote during local children's television programmes (Temple, Steyn & Nadomane 2008). Although children are the main consumers, it is their parents who purchase the cereals (Hill & Tilley 2002). It has also been observed that supermarkets strategically position unhealthy foods knowing that children exercise 'pester power' towards their parents (Dixon, Scully & Parkinson 2006). This 'power' applies pressure on parents to hastily and sometimes unthinkingly purchase these unhealthy food items. While manufacturers use graphics to appeal to children, they make nutritional and quality claims to appeal to their parents (Ibid.).

The food industry has responded to the unhealthy food environment through self-regulations. An example is the Children's Food and Beverage Advertising Initiative (CFBAI) by the Council of Better Business Bureaus (BBB 2015). The aim of this initiative is to encourage children under 12 years old to consume healthier foods (Ibid.). Its signatories comprise 18 lucrative food and beverage corporations, including Kellogg's, Kraft Foods, Nestlé, and General Mills (CFBAI 2014). The initiative's fact sheet states that its nutrition criteria are chiefly guided by the Dietary Guidelines for Americans 2005 and the Food and Drug Administration's (FDA) definitions of "healthy", "low" and "reduced" (CFBAI 2011). A recent progress report mentioned that many cereals of the signatory companies contained up to 15 grams of sugar per serving, and that this sugar content dropped to no more than 10 grams per serving as a result of the initiative (CFBAI 2014).

An ethical issue surrounding the current topic is that marketers exploit children's natural credulity and fondness of lovable and memorable characters. In this regard, Hebden, King, Kelly, Chapman & Innes-Hughs (2011) rightly indicate that marketers commonly use characters to promote unhealthy breakfast cereals. Children prefer foods that are promoted by means of popular characters such as those from *Sesame Street* to generic animal characters (Kotler, Schiffman & Hanson 2012). Children also perceive breakfast cereals that show cartoon characters to be tastier than those that do not (Lapierre, Vaala & Linebarger 2011). Some breakfast cereals also make use of sport celebrities on the packaging, thereby exaggerating their nutritional claims by alluding to supposed health benefits as demonstrated by a well-known and healthy sportsman or sportswoman or fitness celebrity. This should be a cause for concern as pre-adolescents perceive energy dense and nutritionally poor foods to be healthier than they really are when they are marketed with sport stars and nutritional claims (Dixon, Scully, Niven, Kelly, Chapman, Donovan, Martin, Baur, Crawford & Wakefield 2013).

Why are some of these cereals not that healthy?

The Children's Food and Beverage Advertising Initiative reported a reduction of sugar in some of the cereals produced by the major manufacturers (CFBAI 2014); however, these cereals still maintain a low nutritional profile as compared to adult-targeted cereals. Some scholars questioned whether or not the CFBAI was effective in reducing unhealthy food marketing to children (Harris, Schwartz, Brownell, Sarda, Weinberg, Speers, Thompson, Ustjanauskas, Cheyne, Bukofzer, Dorfman & Byrnes-Enoch 2009). They evaluated the nutritional content of 277 cereals from 13 manufacturers targeted at children, adults and the family before (2008) and after the CFBAI initiative, early in 2009. Their study found that cereals aimed at children had 85% more sugar, 65% less fibre and 60% more sodium than adult-targeted cereals. They also found manufacturer reformulations of about a third of the

child and family cereals, but regarded these improvements to be insufficient. A common case was of reducing the sugar content per serving from three and a half teaspoons to three teaspoons.

A recent study by Song, Halvorsen and Harley (2014) conducted in the United States compared 127 cereals' messages aimed at children and adults. Eighty-eight (69%) were marked as adult-targeted and 39 (31%) as child-targeted cereals. The results showed that children's cereals are marketed with notably more nutritional claims than adults' cereals, despite their higher sugar content. They also discovered that 66.7% of the children's cereals contained artificial colourants and sweeteners in contrast to only 12.5% of the cereals aimed at adult consumers. Child-orientated cereals appear to have a lower nutrient value compared to those targeted at adults or the family. This is a cause for concern as logic dictates that cereals aimed at developing children should have equal if not more nutritional value than those targeted at adults.

Additionally, the Department of Health and the Directorate of Nutrition revised the South African Food-based Dietary Guidelines in 2011 (Vorster, Badham & Venter 2013). The general guide for South Africans recommends to 'use sugar and foods and drinks high in sugar sparingly' (Ibid. p. S7). We can also rightfully question whether all parents will measure or monitor the sugar servings of their children and whether children will refrain from adding sugar to the already high sugar content cereals. Sugar-laden cereals may contribute to children consuming more sugar than the recommended daily allowance.

Theoretical Framework

A theory that can explain the vulnerability of children in terms of the marketing messages of sugary breakfast cereals is the Cognitive Developmental Theory by the Swiss cognitive theorist Jean Piaget (1896-1980) (Berk 2009). According to this theory children learn during their interaction with their surroundings (Ibid.). Piaget developed four stages that represent children's cognitive development. In the first stage, the Sensorimotor Stage (Birth to 2 years), infants make sense of the world around them through physical interaction with their eyes, ears, hands and mouth. The Preoperational Stage (2 to 7 years) is recognised by children being able to represent their environment through symbols and make-believe play. Between the ages of 7 to 11 years in the Concrete Operational Stage, children develop reasoning and logic and they are able to sort objects into their groups. The final Formal Operational stage has children from 11 years and older. Here, youth develop conceptual, methodological and research-based thinking.

From the above theory one can see that children engage extensively with their environment and recreate it through play. This engagement and recreation can be seen on breakfast cereals in two main ways, which could be why children are attracted to the packaging. Firstly, the cartoon characters are often anthropomorphised with a name and clothed with items such as caps and t-shirts. This is what children do when they participate in make-believe play. They oftentimes adopt new identities and wear somebody else's clothing. Secondly, the packaging engages the children through friendly, inviting and playful characters juxtaposed against colourful backgrounds. Seeing that it is part of children's natural development process to engage in a playful manner with their environment, we can rightfully ask whether it is ethical to exploit their natural development process by using marketing techniques that resonates with them.

Similarly, Valkenburg and Cantor (2001) used a number of developmental and cognitive psychology theories and marketing theories to develop a model for child-consumer behaviour from a newborn to 12 years of age. The first stage of the model (feeling wants and preferences) describes children from 0 to 2 years as having their own preferences. This however does not mean that they are mature consumers because they are still "primarily children of consumers" (Ibid. p. 64). The second stage (2 to 5 years) is characterised by children who nag their parents for products and who have difficulty resisting their desires for products. These children also have a difficulty differentiating between what is real and what is not. By the time children are 5 to 8 years old, they can be seen making their first purchase decision in a supermarket with their parents. In the final stage, children aged 8 to 12 years

are greatly influenced by peers and develop the ability to evaluate products. Additionally, their character preferences shift from cartoon characters to realistic characters such as real animals, sports stars, actors or actresses and superheroes. In this group, 9 to 10 year olds are uninterested in toys and rather value products that add to their social status. Valkenburg and Cantor's model raises relevant ethical concerns for very young children aged 2 to 5 years. Because they cannot differentiate between reality and fantasy, they will most likely develop an attachment to cartoon characters. These children also cannot exercise self-control which is why marketers leverage on their 'pester power' (Dixon, Scully & Parkinson 2006). It is also clear that marketers target a wide range of children through multiple promotional techniques. The younger children are targeted through the appeal of cartoon characters, whilst sports stars and celebrities are used to appeal to older children.

Currently, most of the research studies surrounding junk food advertising is undertaken internationally. A few examples include an investigation into the marketing techniques used on child-targeted food packaging in an Australian chain store (Mehta, Phillips, Ward, Coveney, Handsley & Carter 2012), a North American study on how popular cartoon characters on food packaging influence children's taste preferences (Roberto et al. 2010) and the persuasive techniques used to promote food and beverages on television to children in the United Kingdom (Boyland, Harrold, Kirkham & Halford 2012). We were, however, able to identify two related South African studies regarding food advertising. The first study considered food advertisements aired in June and October 2006 during children's television programmes on SABC1 and SABC2 (Temple, Steyn & Nadomane 2008). This study found that no less than 38 (55%) of 69 television advertisements promoted unhealthy food, including nine highly processed breakfast cereals. Twenty-nine advertisements were for generally healthier products such as yoghurt and peanut butter. Similar to international studies, Temple, Steyn and Nadomane (2008) recommend that policies should address the marketing of unhealthy food to children by restricting food advertising during children's television programmes or by restricting its marketing activities.

On their part, Mchiza, Temple, Steyn, Abrahams and Clayford (2013) provided an analysis of food advertisements aimed at children and adults on SABC1, SABC2, SABC3 and e.tv from 16 April 2011 to 13 May 2011. Their study identified 420 food advertisements of which 20 were directed at children. Their sample included 218 unhealthy food advertisements for products such as desserts, sweets and fast food that were aired during family viewing time. Healthier options including fruit and vegetables were observed in 167 advertisements. Mchiza et al. (2013) concluded that South African television promotes unhealthy food and that the health claims are ubiquitous and misleading. Their recommendation, similar to that of Temple, Steyn and Nadomane (2008), suggested that government should intervene in order to reduce the promotion of unhealthy food, especially to children. They went further to say that attempts should be made to increase the advertising of healthy food. We have some insight into television food advertising aimed at children from international and local studies. However, we do not have sufficient information regarding the nature and extent of the promotional tools and themes of misleading and persuasive advertising practices, as employed on cereal packaging, as far as South Africa is concerned.

Guideline 14 and the Department of Health's strategic plan

The South African Minister of Health recently released a set of draft regulations relating to the labelling and advertising of foods (South Africa 2014a) and invited interested parties to submit substantiated comments. These regulations, once accepted, will become part of the Foodstuffs, Cosmetics and Disinfectants Act, No. 54 of 1972 (South Africa 2010) and will cover design parameters, health, content and nutritional claims, to name but a few. Regulation 65 is applicable to this paper and deals with the commercial marketing of food to children. Regulation 65 states that food and non-alcoholic beverage marketing to children will not be allowed unless it complies with Guideline 14.

Guideline 14, however, was not included in the Draft Regulations and only became available later in 2014 as a part in a Department of Health (DoH) publication (South Africa 2014b). Guideline 14 is one of 16 guidelines in a comprehensive 147-page DoH publication. The aim of Guideline 14 is to reduce the impact of marketing unhealthy food and non-alcoholic beverages to children, and to reduce the risk for consumers to develop non-communicable diseases such as obesity and diabetes. These guidelines have a medical and scientific basis and are based on resolution WHA63.14, taken in May 2010 during the 63rd World Health Assembly (WHO 2010). The preamble to Guideline 14 also acknowledges the assistance of a number of international organisations and universities that assisted in drafting the content. Whilst the regulations have not yet been enacted, designers and design educators cannot ignore the rational, evidence-based and well-intended guideline. The 5000 plus-word guideline is by no means trivial, and includes 15 criteria that are applicable to all that are involved in marketing food to children. Designers, by virtue of their visual role in marketing, and design educators, by virtue of shaping design students' orientation, are two inescapable respondents to Guideline 14.

Criteria 6(1) aims at preventing the marketing of unhealthy food to children by using an actor that is younger than 18 years, using a celebrity, a cartoon character or characters, animation, competitions, gifts, or collectables that appeal to children. Criteria 6(2) goes even further and aims to prevent the marketing of any energy dense, nutritionally poor food to children that is, for example, high in sugar. Criteria 4 will, to boot, prohibit the use of a happy, upbeat family to promote unhealthy food. Applying these criteria to cereal package design may have far-reaching design implications. If implemented and enforced, we may see the disappearance of *Lionel Messi*-type endorsements on, for example, the packets used for potato chips (crisps), no longer happy, smiling families on the back of nutritionally poor breakfast cereals, and no longer cartoon characters promoting high sugar content cereals.

In addition to the draft guidelines, the ministry has developed a 53-page strategic plan for the years 2014-2019 (DoH 2014). The plan stems from the National Development Plan for 2030 which, amongst others, aims to achieve an effective health system in the country. The DoH's vision is to foster the long-term health of all South Africans through preventing sickness/disease and promoting a healthy lifestyle. The plan details eight strategic goals, one of which is to "[p]revent disease and reduce its burden, and promote health" (Ibid. p. 15). The Director General recognises that in order for the plan to succeed, key partnerships must be forged with "parents, child care providers, schools, health care providers, community organisations, the food industry, store owners and retailers and the media" (Ibid: vii). In light of the above, the design community of South Africa should use design to support the intentions of this plan. We can no longer afford to popularise and promote food with low nutritional benefits yet neglect the well-being of consumers. This national plan, in part motivated this study.

The methodology

This study employed a thematic content analysis to determine the promotional tools and themes of graphics used on breakfast cereals targeted at South African children. Content analysis is a common method of examining packaging designs in order to determine its characteristics. An example is Elliot's (2008) study which used content analysis to create a profile of supermarket foods targeted at Canadian children.

Sample and data collection

The sample consisted of 21 child-orientated breakfast cereals from two prominent retail stores in Gauteng, KwaZulu-Natal and the Eastern Cape. These were all the child-orientated cereals in these stores. Permission was granted by the various supermarket managers, after making a request, to sample and photograph the front and back of the products in the stores.

Procedure

We independently coded the front images of the packages for promotional tools and themes. These included those that other researchers identified and new ones that emerged during the study. Examples of promotional tools are cartoon and celebrity characters, colours, giveaways, games, tie-ins to children's movies and television programmes, and competitions (Roberto et al. 2010; Harris, Schwartz & Brownell 2009; Elliot 2008). Typical themes are taste, humour, fun, cool, fantasy and adventure (Roberts & Pettigrew 2007). We considered inter-coder reliability, discussed differences, and arrived at a consensus until there were no differences between the coding decisions. Additionally, we developed short graphic descriptors to describe the overall themes of the sample's packaging. We also looked at the textual health claims and the sugar content of the products.

The Results

The table below presents a list of the breakfast cereals included in the study. It also provides in descending order the sugar content per 30 grams serving of an adult's guideline daily amount. The reason why duplicates appear in the table below is because the package design differed for the same product.

| | Product | Sugar (g) per serving (g) |
|-----|----------------------------------|-----------------------------------|
| 1. | Nestlé Milo | 15.9g/30g with 125ml low fat milk |
| 2. | Spar Squillos Oat Hoops | 15g/30g |
| 3. | Bokomo Otees Crème Soda | 11.6g/30g |
| 4. | Kellogg's Strawberry Pops | 10g/30g |
| 5. | Kellogg's Corn Flakes Real Honey | 9.8g/30g |
| 6. | Heartland Choc Rockers | 9.5g/30g |
| 7. | Kellogg's Coco Pops Chocos | 9.5g/30g |
| 8. | Kellogg's Coco Pops Chocos | 9.5g/30g |
| 9. | Nestlé Milo | 9.5g/30g |
| 10. | Nestlé Milo Duo | 9.5g/30g |
| 11. | Nestlé Honey Cheerios | 9g/30g |
| 12. | Jungle Crunchalots | 8.7/30g |
| 13. | Weet-Bix Bites | 7.6g/30g |
| 14. | Weet-Bix Bites Chocolate | 7.6g/30g |
| 15. | Spar Squillos Oat Pillows | 7g/30g |
| 16. | Kellogg's Rice Krispies | 2g/30g |
| 17. | Kellogg's Rice Krispies | 2g/30g |
| 18. | Heartland Rice Poppers | 1.7g/30g |
| 19. | Kellogg's Corn Flakes | 1.5g/30g |
| 20. | Kellogg's Corn Flakes | 1.5g/30g |
| 21. | Rainbow Wheat Crunchies | 0.9g/30g |

Table 1: Sample of breakfast cereals and sugar content

From the above table, one can see that the sugar content of 11 (52.4%) cereals is between a third to half of a serving (9g/30g to 15.9g/30g). These values illustrate the high sugar levels in child-orientated cereals.

Table 2 below provides the frequency of promotional tools, themes and graphic descriptors on the package designs of the sample.

| Promotional tools | N (%) | Themes | N (%) | Graphic descriptors | N (%) |
|-------------------|-----------|----------------------|------------|---------------------|------------|
| Character | 17 (81%) | Welcoming | 18 (85.7%) | Play-pal | 15 (71.4%) |
| Giveaway | 3 (14.3%) | Health | 8 (38.1%) | Flavour-full | 5 (23.8%) |
| Celebrity | 3 (14.3%) | Flavour/taste | 4 (19%) | Chum-chase | 4 (19%) |
| Game | 2 (9.5%) | Action/ adventure | 3 (14.3%) | Happy family | 3 (14.3%) |
| Movie/TV tie-in | 3 (14.3%) | | | Vroom-tritious | 2 (9.5%) |
| Competition | 1 (4.8%) | | | Sugar-buzz | 3 (14.3%) |
| | | | | Star struck | 3 (14.3%) |
| | | | | Bright spark | 1 (4.8%) |

Table 2: Frequency of promotional tools, themes and graphic descriptors used for breakfast cereals

Promotional tools

Of the 21 packages considered, 17 (81%) used a character as their premium promotional tool. These included mystical creatures, stills of animated characters from movies and proprietor company-owned characters such as Kellogg's *Coco* the monkey, Kellogg's *Sammy* the seal, Kellogg's gnomie elves: *Snap*, *Crackle* and *Pap*. Other characters were the Kellogg's Corn Flakes rooster, the squirrels of Spar Squillos, *Cerealot* of Jungle Crunchalots, the three mystical creatures of Bokomo Rainbow Crunchies and the 'H' characters of Heartland Choc Rockers (hippopotamus) and Rice Poppers (zebra). Two packages (9.5%) used a honeybee and an anthropomorphised chocolate drop.

The characters on five packages (23.8%) were involved in activities such as playing soccer, skating, swinging, dancing or snowboarding. Three packages (14.3%) used celebrities, one being a Nickelodeon television character named *SpongeBob* from *SpongeBob SquarePants* and which included a collectable dog tag. The remaining two promoted the movie *Rio 2* and offered a free figurine. Another promotional item was a sticker that was included in the Kellogg's *Coco Pops* pack.

The most dominant colours, in terms of the packaging's surface area, were blue (42.9%), green (38.1%), brown (38.1%) and white (38.1%). Other colours were orange (28.6%), red (19%), cream or cream-white (9.5%), pink (9.5%), purple (9.5%) and gold (4.8%).

Themes

The 'Welcoming' theme was the most popular on 18 packages (85.7%) and it was expressed through friendly and inviting characters. These characters had dilated eyes and wide smiles and looked directly at the viewer. 'Health' was another popular theme as observed on eight (38.1%) packages. Health was communicated by highlighting ingredients and nutritional aspects such as multigrain, vitamins, minerals, calcium and iron. Additionally, the back of the packages included information regarding these ingredients and suggested balanced meal options and guidelines for healthy eating. Interestingly, health was also portrayed through the use of the colour green. Flavour/taste featured on four (19%) packages that amplified the flavour of the cereal or evoked the gustatory sense. Action/adventure (14.3%) was the least popular theme as conveyed through jungle animals from the movie *Rio 2* and an under the sea scene on Kellogg's *Rice Krispies*.

Graphic descriptors

A graphic descriptive name gave an indication of the general graphic theme displayed on packaging. Play-pal, for example, indicated that the marketer's general graphic message was one that projects a playful theme. This kind of package also has a playful character that appears to be a friend or a "pal" to the viewer. 'Play-pal', 'Flavour-full' and 'Chum-chase' were the top three graphic descriptors that were used on 15 (71.4%), five (23.8%) and four (19%) of the package designs respectively. 'Play-pal' was similar to the 'Welcoming' theme and it was also portrayed through friendly and playful characters. Five (23.8%) packages fall into the flavour-full theme. In addition, 'edible' coloured text and images of the cereal for the chocolate and strawberry flavour and dripping honey add to the 'Flavour-full' description.

Textual health claims

All but one of the cereals made textual health claims. Most of these claims were related to the nutrient profile of the cereals: 'Contains the nutrients your family needs'; 'Provides you with at least 15% of your daily requirement of 10 vitamins and minerals'; 'Source of 8 vitamins'; 'Source of calcium'; 'Source of iron'; 'Source of fibre'; 'Source of minerals' and 'High in B vitamins: B1, B2, Niacin, Pantothenic acid, B6 & B12'. Additional claims were made regarding the raw material or ingredients of the cereals: 'Made with wholegrain'; 'Made from oats'; 'Made from 4 whole grains: Corn, Oats, Rice & Wheat'; and 'Made with real honey'. Manufacturers downplayed issues such as the absence of preservatives, colourants, cholesterol and added salt.

It is evident that manufacturers advertise their products by primarily using playful, friendly, inviting and welcoming promotional characters as the key graphic variable on their package designs. In addition, they buttress the value of their products through textual claims that are aimed at affirming the supposed health properties of the product.

Discussion of the results and recommendation

The results of this study echo the findings of similar international studies. Ten of the 21 products contain 30% sugar or more, a dominant ingredient in child-targeted foods (Cairns et al. 2013). Seventeen of the 21 products use a lively character, which is a common practice in marketing unhealthy cereals (Hebden et al. 2011). The use of play-pal, welcoming characters, as the dominant graphic descriptor and tool on the packages, iterates the strong child-appeal of likeable and familiar characters (Kotler, Schiffman & Hanson 2012). By using the child-consumer model of Valkenburg and Cantor (2001), we can infer that marketers deliberately target children that are 8 years and younger.

Besides a welcoming theme, health was the second most popular theme employed by 8 of the 21 products. This differs from the work of Cairns et al. (2013) who found that the health theme was significantly less popular than the themes of taste, humour, action/adventure, fantasy and fun. In this regard, Dixon et al. (2013) indicate that pre-adolescents are often misled to think that cereals with sports celebrities and nutritional claims are healthier than they really are. Despite these health claims, almost half of this study's sample contained between 9 grams to 15.9 grams of sugar per 30 grams serving. Although this study's sample was not compared with adult-targeted cereals, the findings reflect those of Song, Halvorsen and Harley (2014) who observed that cereals targeted at children are marketed with nutritional claims even though their contents are high in sugar.

The spirit and intentions of Guideline 14 and the DoH's Strategic Plan is to protect children from exploitative marketing practices and thereby positively contributing to their health. It is for this reason that we can rightfully question the ethics of persuasive graphic and text elements to market sugary breakfast cereals to children. Designing marketing material to promote junk food to children can hardly be described as an ethical design endeavour. Taking an ethical position, such as espoused by Guideline 14, and supporting the DoH's Strategic Plan, may be a more ethical and appropriate, but this will invariably jar with the utilitarian approach of design and marketing. It is then not surprising

to note the comments by the Marketing Association of South Africa (MA[SA]) on Guideline 14. In their reply, they expressed their disagreement with some aspects of the regulations and in particular with Guideline 14. They recommend that the Guideline 14 contents be replaced by the Code of the Advertising Standards Authority of South Africa (MA[SA] 2014).

The difficulty with this, and the advantage to MA(SA) if accepted, is that the advertising codes of the Advertising Standards Authority of South Africa (ASASA) are not as detailed as the Regulation 14 criteria. The ASASA codes do not specifically prevent or prohibit the use of cartoon-type characters, the use of celebrities, happy families, and gifts as instruments – precisely the intentions of Regulation 14. Empirical studies have indicated that celebrity endorsement and cartoon-type characters are some of the strongest and most effective graphic instruments that one can use when marketing a product to a child (Boyland et al. 2012; Roberto et al. 2010). Marketing junk food to children, then, becomes an ethical issue due to the health implications and should take precedence over the utilitarian philosophy of profit-driven marketing practices. Whilst we acknowledge that it may be difficult to change the current trend, even if Guideline 14 is enacted, one option would be to imbed stricter (design) regulations in ASASA codes to protect children against marketers who target children's natural credulity.

We also concede that legislation and stricter self-regulatory codes may not necessarily solve designers' dilemmas in terms of their participation in the marketing of junk food to children. The food marketing environment is composed of decision makers in the food manufacturing industry, marketers and designers who were once students. Design educators should consider a course in ethics, to inter alia expose students to national and international plans such as the DoH's Strategic Plan (DoH 2014) and the WHO's (2010) recommendations about marketing foods and non-alcoholic beverages to children. Indeed, Elliot (2012, p. 315) points out that "the food industry... should not unduly complicate (or undermine) individual or societal efforts to make healthy food choices, promote good nutrition, and create positive relationships with food for children".

Conclusion

This study considered the promotional tools and themes that marketers use to promote child-orientated breakfast cereals to South African children. We questioned the ethics behind marketing sugary cereals through child-appealing promotional characters and an implied health theme. Breakfast cereals are predominantly marketed to children through cartoon characters, a welcoming theme and playful graphic messages. The spirit and intention of manufacturers to sell these type of products to children do not complement the DoH's goals towards a healthier nation (DoH 2014). In addition, the graphics and themes are diametrically opposed to Guideline 14 in the Draft Regulations relating to the labelling and advertising of foods (South Africa 2014a). In addition to developing more restrictive ASASA codes and implementing existing labelling legislation, design educators should align their design training with the spirit of these codes and legislation.

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