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Running head: CHILDREN'S RECOGNITION OF ADVERTISEMENTS

Children's recognition of advertisements on television and on Web pages

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### **Abstract**

In this paper we consider the issue of advertising to children. Advertising to children raises a number of concerns, in particular the effects of food advertising on children's eating habits. We point out that virtually all the research into children's understanding of advertising has focused on traditional television advertisements, but much marketing aimed at children is now via the Internet and little is known about children's awareness of advertising on the Web. One important component of understanding advertisements is the ability to distinguish advertisements from other messages, and we suggest that young children's ability to recognise advertisements on a Web page is far behind their ability to recognise advertisements on television.

### **Keywords**

Children, advertising, Web pages, Internet, television, persuasive intent

### **Children's recognition of advertisements on television and on Web pages**

Much advertising is aimed at children and young people because children have a great deal of spending power, and because they influence a large proportion of family purchases (Gunter, Oates & Blades, 2005). Compared to adults, children purchase a very narrow range of products such as food, beverages, toys, clothes and entertainment, and therefore marketers of these products often target their advertising at children and young people. Kovacic, Harbour, Liebowitz and Rosch (2008) estimated that in 2006 in the United States, 44 companies spent over \$1.5 billion promoting food and drinks to children and young people. Given the large sums spent on marketing such products it is not surprising that in many countries the greatest proportion of television advertising aimed at children is for food and drink products (Gunter et al, 2005).

Many of the food and drinks aimed at children are ones that might be considered as unhealthy ones because they have a high fat, salt and/or sugar content ('HFSS' products). The very large sums spent on marketing such products are clear evidence that advertising is an effective way of promoting these products to children. Hastings et al (2003) carried out an extensive review of the research on food advertising to children and concluded that such advertising had a significant effect on what children chose to eat.

### **Effects of television advertising on children**

The effect of food advertising on television has been demonstrated by Halford et al (2004) who showed children typical television advertisements for food, and then on another occasion showed the same children a similar number of advertisements that did not promote food. After seeing the advertisements on each occasion the children were allowed an unlimited amount to eat. Following the food advertisements the children ate more food, and less healthy food, than they did after seeing the non-food advertisements. This finding and similar results from other studies (Boyland, Harrold, Kirkham, & Halford, in press) demonstrated the negative effects of food

advertising on the amount and type of food that children consume. Concerns about food advertising have led the UK government to ban the advertising of HFSS foods in or near television programmes aimed at children (Ofcom, 2006).

Auty and Lewis (2004) demonstrated that product placement could also influence children's choices. Auty and Lewis showed one group of children a clip from a film that included a family drinking and talking about Pepsi Cola. Another group of children saw a clip from the same film that did not include Pepsi. When the children were later asked whether they would like a drink of Pepsi or Coca Cola, the children who had seen the clip with the family were more likely to choose Pepsi. This, and other studies of product placement in films (Owen, Lewis, & Auty in press), have demonstrated that product placement can affect children's preferences. Films can of course be viewed in the cinema, at home on DVDs, and are frequently repeated on television, so that children may see such examples of product placement on multiple occasions.

Apart from the studies on product placement in films, research into the effects of advertising on children has focused almost entirely on television advertising (Hastings et al, 2003; Kunkel et al, 2004), and has almost always been about traditional 'spot' advertisements (i.e. the short advertisements broadcast between programmes or during commercial breaks). There has been little or no research into the effects of other marketing to children, such as advertising that children might see in magazines, in comics, on billboards, in shops, on packaging, or through the sponsorship and branding of events (e.g. at football matches or at the Olympic Games).

The emphasis on television advertising has been explicitly or implicitly justified because television has been by far the most important source of advertising aimed at children and the prime way that marketers could reach children in their own homes (Gunter et al, 2005). Although television advertising, across the world, still accounts for the majority of spending on marketing to children the rapid growth of the Internet means that other forms of advertising are increasing in importance. However, we know almost nothing about the effects of non-television advertising on children.

### **Children's awareness of television advertising**

Children's awareness of television advertising takes several years to develop. The most important developments are two significant stages in children's understanding. The first stage is when children can identify an advertisement, in other words when they can distinguish an advertisement from other television content. The second stage is when children realize that an advertisement has 'persuasive intent' in other words that an advertisement tries to convince them that a particular product is attractive and worth buying.

Children can recognize an advertisement on television by 6 years of age. Levin, Petros and Petrella (1982) showed 3-, 4- and 5-year-olds 10 second extracts from programmes and from advertisements (for children's products or adults' products), which were presented in a random order on a video. As the video was played the children had to say whether the extract they were watching was an advertisement or a programme. By the age of 5 years the children could identify nearly all the advertisements for children, and most of the advertisements for adults. Although Levin et al did not investigate how children distinguished the advertisements, they pointed out that television advertisements could be identified by a number of features such as voiceovers, jingles, pace and editing. Television advertisements can also be distinguished because they are short, they usually occur together, they are seen more than once in the same day or week, and in some countries (e.g. in the United Kingdom) the commercial break will be indicated by separators between a programme and the advertisements. Attending to one or more of these cues may be enough to distinguish advertisements correctly.

Identifying an advertisement does not mean that children appreciate its persuasive nature. Children can only be said to understand the persuasive intent of advertising when they can explain that the purpose of an advertisement is to get the viewer to purchase the product that is being promoted. In a report initiated by the American Psychological Association (APA), Kunkel et al (2004) summarised all of the most significant research on children and television advertising and concluded that there was no evidence that children understood the persuasive intent of advertising until after 8 years of age. The APA therefore suggested a ban on all advertising to

young children. This would apply to all advertisements, not just the advertisements (like the ones for unhealthy foods and drink) that might also have negative effects on children's lifestyles.

There is an assumption, often an implicit one (because as yet, there is no evidence for the assumption) that only when children can recognise the persuasive nature of advertisements will they be able to make critical judgments about the advertisements and be less inclined to accept them at face value, or believe the claims and promises that are made in the advertising message. Although the APA suggested that understanding persuasive intent is not achieved until about 8 years of age, children do not necessarily a full understanding of advertising until some years later (Gunter et al, 1995).

### **Advertising to children in new media**

The Internet has become an important part of children's lives and therefore an increasing proportion of the money spent on advertising to children has been spent on marketing on the Web, and like television advertising aimed at children Web advertising includes many food and drink products that are unhealthy (Moore, 2006). There has been little research into the effects of Internet advertising on children, though some aspects of Internet advertising, like advergames (which are interactive games that are made attractive for children, but which incorporate marketing messages) have been shown to influence children's healthy and unhealthy food choices (Pempek & Calvert, 2009).

There has also been little research into children's awareness of Internet advertising, and as yet we do not know how children recognize or interpret the marketing messages they experience on the Web. In two studies, described below, we investigated whether children could identify advertisements that were included on Web pages. Identifying an image as an advertisement is the most basic aspect of understanding advertisements. Children must be able to identify what is and what is not an advertisement before they can adopt a critical approach to what they are viewing,

### **Recognition of web page advertisements**

To find out at what age children could identify advertisements on the Web we invented a number of Web pages (Ali, Blades, Oates & Blumberg, 2009). Each Web page included several images with associated text, and some of the pages included images that were advertisements. The advertisements were invented ones, but were closely based on advertisements found on actual web sites that children might visit, and included wording that was typical of such advertisements. The Web pages were printed for the children to look at, and the advertisements included a range of products targeted at children, including food products. We could not use existing advertisements because children may have recognised such advertisements simply because they had seen the advertisements before. However, we made sure that our invented advertisements looked like 'real' advertisements by showing the Web pages to a group of adults and asking the adults to point to anything they thought was an advertisement. All the adults identified all of the 27 advertisements, and none ever pointed to anything on a page that was not an advertisement. In other words, there was full agreement by adults about what was an advertisement on one of our Web pages and what was not.

In contrast to the adults, children had difficulty identifying the advertisements. Six-year-olds only identified just over a quarter of the advertisements, 8-year-olds identified about half the advertisements and 10-year-olds identified about three-quarters of the advertisements. We carried out this study in the UK and then in Indonesia (with the same web pages translated). Neither country had any specific regulations about advertising to children on Web pages. The Indonesian children were the same age as the children in the UK, but had less experience of the Web (Ali et al, 2009), nonetheless we found that performance for equivalent age groups in both countries was very similar (see Table 1).

If children, even up to 12 years of age, have difficulty distinguishing advertisements from the surrounding content of a Web page it is likely that they will confuse the editorial content and the marketing content of such pages. The children's inability to identify Web advertisements was in marked contrast to the research on television advertisements, described above, which has shown that children can



identify television advertisements consistently well by 6 years of age (Levin et al, 1982). As noted above, there are numerous cues that might help children to identify advertisements on television. Most of those cues (e.g. voiceovers, pacing, length, timing, separators) are not associated with advertisements on Web pages, and therefore it may not be surprising that children find distinguishing advertisements on Web pages more difficult than distinguishing advertisements on television. Nonetheless, in our study adults could successfully point out all the advertisements (Ali et al, 2009). In other words, the adults did have appropriate strategies for identifying Web page advertisements, but the children did not.

As there had been no previous research into how children and adults distinguish advertisements we carried out a further study to examine the strategies different age groups used to identify advertisements on Web pages. The study was carried out in China with groups of 7-, 9- and 11-year-old children, and the procedure was similar to Ali et al (2009), but using invented Web pages that were appropriate for Chinese children. The children were shown a number of pages on screen that included advertisements for invented products, including foods. All the advertisements were similar to actual advertisements aimed at children in China, and a group of Chinese adults had no difficulty identifying them as advertisements.

Children were first asked to give examples of advertisements that they had seen on television, to check that they knew what the word 'advertisement' meant, and all the children gave appropriate examples. Then the children were shown the Web pages on screen and were asked to point to what they thought was an advertisement on each page. The 7-year olds only identified about half the advertisements, and it was not until 9 years of age that the children could identify most of the advertisements. As in Ali et al (2009) this demonstrated that young children were poor at distinguishing advertisements on Web pages.

The children and adults were asked to give reasons why they thought an image was an advertisement – irrespective of whether the image they had identified was actually an advertisement or not. The adults (who almost always identified the advertisements correctly) usually gave several different reasons why each image might be an advertisement and the majority of the adults' reasons referred to the text

of the image, and/or the persuasive nature of the image, and/or the fact that the image contrasted with the rest of the page.

In contrast to the adults, the children often only suggested a single reason for identifying each image as an advertisement, and their reasons included much more subjective justifications. The most common responses from the youngest age group were that they were guessing, or that they pointed to an image because they liked it, or that they thought they had seen it somewhere else (even though the advertisements on our Web pages were invented ones). The 9- and 11-year-olds sometimes gave more sophisticated reasons for identifying an advertisement, but nearly half of the reasons given by these two age groups were that they liked the image or that they (incorrectly) thought they had seen the image before.

We assume that one of reasons why Web page advertisements are hard to identify is that such advertisements are usually part of a page of information and are not (like television advertisements) separated from the rest of the channel content. Strategies that might help children recognise a television advertisement (like the position of the advertisement, or the presence of a voiceover) do not apply to Web page advertisements. There may be features of an advertisement on a Web page that could help children identify such an advertisement. For instance the presence of price information helped older children in Ali et al (2009) to identify Web advertisements. Although the advertisements included in our studies were part of a Web page the advertisements we used were all discrete images on the page. In contrast, other Web marketing to children (e.g. in advergames) is more embedded and such marketing might be even harder for children to identify such content as advertising messages.

When, in a separate part of the study, we questioned the same children about the nature of advertising in general many of the 7-year-olds and all of the 9- to 11-year-olds were able to explain the persuasive intent of advertisements (and this would be expected from the television research described above). Therefore, this research on Web pages stands in contrast to the research on television advertising. In the television research, children can distinguish television advertisements by 6 years of age but do not understand persuasive intent until about 8 years of age. In our research on Web pages we had children up to 11 or 12 years who clearly appreciated the

persuasive nature of advertising in general, but who could not always identify a Web advertisement correctly, and did not necessarily have effective strategies for doing so. Therefore the developmental sequence derived from the television advertising research cannot be applied to children's awareness of advertising in other media, because we can no longer assume that the ability to recognize an advertisement always precedes the ability to understand the purpose of advertising.

We suggest that children's lack of proficiency in identifying what is and is not an advertisement on a Web page could make them vulnerable to new forms of advertising. As noted at the beginning of this paper, food advertising on television has an effect on children (Halford et al. 2004) and so we assume that children will be no less vulnerable to food advertising on Web pages. Our findings also raise another issue – whether children are less influenced by advertisements that they do not recognise as such. There is no research into the effects of television advertisements that are not recognised as advertisements, because as we pointed out above, all but the very youngest children do identify television advertisements. In our research on Web advertisements we have demonstrated that much older children cannot identify some Web advertisements, so it now requires further research to establish the effect that unrecognised Web advertisements might have on children. On the one hand advertisements that are not recognised as advertisements may have little or no influence on children (in which case marketers are spending a lot of money on advertising to no effect). On the other hand, advertisements that are not recognised as advertisements may effect children, and if so this raises issues about the ethics of marketing to children who do not realise that they are viewing advertisements on the Web.

## **Conclusions**

Concerns about food marketing on television have led some governments (like the UK government) to ban unhealthy food advertising in programmes aimed at young children (Ofcom, 2006). It would seem an extension of such policies to limit or control food advertising to young children on the Internet, but doing so would, because of the international scale of the Internet, be a much more difficult task than restricting television advertising in a single country.

An alternative approach would be to raise children's awareness of food and other advertising in newer media. Young children's inability to detect advertisements on Web pages may be due to their lack of effective strategies for identifying advertisements. In which case it may well be possible to teach children such strategies and educate them better about the nature of advertising in newer media.

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Table 1. Mean number of Web page advertisements (out of a possible maximum of 27) recognised by children in the UK and in Indonesia, from Ali et al (2009).

<u>Age</u>	<u>UK</u>	<u>Indonesia</u>
6 years	7.7	8.7
8 years	15.2	14.5
10 years	19.7	19.0
12 years	-	21.0