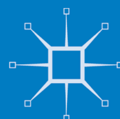
ADVERTISING TO CHILDREN

New Directions, New Media

Edited by **MARK BLADES**, **CAROLINE OATES**, **FRAN BLUMBERG** and **BARRIE GUNTER**



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Edited by

Mark Blades
University of Sheffield, UK

Caroline Oates
University of Sheffield, UK

Fran Blumberg
Fordham University, USA

Barrie Gunter
University of Leicester, UK

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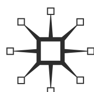
macmillan



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Notes on Contributors

Moondore Ali is a Lecturer in Psychology at Bina Nusantara University in Indonesia. She has conducted research into children and advertising in both the UK and Indonesia.

Susan Auty is a retired Lecturer in Marketing at Lancaster University. Her research has focused on how people make choices, and her most recent projects have looked specifically at how children might be influenced by the effect of product placement.

Mark Blades is a Senior Lecturer in Psychology at the University of Sheffield. He has published on many aspects of children's cognitive development, including children's understanding of advertising.

Fran Blumberg is an Associate Professor in the Division of Psychological and Educational Services at Fordham University, New York. She has researched many aspects of children's media experience, including children's use of computer games.

Emma Boyland is a Lecturer in Psychological Sciences at the University of Liverpool, where she specialises in research related to children's diet and healthy eating, and the effects of food advertising on children.

Moniek Buijzen is a Professor at Radboud University Nijmegen, where she carries out studies into health promotion for young people and research into how the commercialization of the media environment affects children and families.

Sandra Calvert is a Professor of Psychology at Georgetown University and Director of the Children's Digital Media Centre. She has carried out extensive research into the influences of digital media on children's lives.

Kara Chan is a Professor in the Department of Communication Studies at Hong Kong Baptist University. Her interests include cross-cultural consumer studies, young people's understanding of advertising and the promotion of healthy eating.

Maria Chu is a Research Fellow at City University London. She previously held postdoctoral positions at four other universities. Her research includes studies of children's and adults' healthy and unhealthy eating and weight management.

Barrie Gunter is a Professor in the Department of Media and Communication, University of Leicester. He has conducted extensive research on media and related topics, including publications on children and advertising.

Jason Halford is a Professor in Psychological Sciences at the University of Liverpool. His work includes research into the causes of obesity in adults and the effects of food advertising on children.

Joanne Harrold is a Senior Lecturer in Psychological Sciences at the University of Liverpool researching the factors underlying feeding behaviour, including food marketing and the development of healthy eating preferences in childhood.

Jane Herbert is a Senior Lecturer at the University of Sheffield who specialises in children's learning and development, including how young children can be influenced by television and media.

Brian Kelley is a doctoral student at Fordham University, New York. His research interests focus on affect, literary understanding, and the reading of comics-based materials such as graphic novels and comic books.

Tim Kirkham is a Professor in Psychological Sciences at the University of Liverpool where he has carried out research into the neurochemistry of appetite and the role of neurotransmitters in the control of eating desires.

Charlie Lewis is a Professor of Family and Developmental Psychology at Lancaster University. His research has focused on how family members, particularly fathers, influence children's development. His work includes studies investigating the implicit effects of marketing on children.

Shiying Li is a postgraduate student at the University of Sheffield, where she is carrying out research into Chinese children's recognition of Internet advertising.

Nicki Newman is a Teaching Fellow in the Management School, University of Sheffield. She has carried out research into the marketing of food to children and the portrayal of food in children's programmes.

Caroline Oates is a Senior Lecturer in the Management School, University of Sheffield. Her main research focuses on children as consumers and on sustainability in marketing.

Laura Owen was a postdoctoral researcher in the Psychology Department at the University of Reading, investigating strategies to promote children's healthy eating. Her research focuses on children and non-traditional advertising techniques.

Megan Pickering studied Psychology at the University of Sheffield where she specialised in child development and children's recognition of Internet advertising.

Amanda Staiano is a researcher at Pennington Biomedical Research Center. She has investigated the behavioural factors that contribute to paediatric obesity and chronic disease, and ways to promote healthy lifestyles in children.

Athanasia Tziortzi is a Lecturer in Marketing at Frederick University, Cyprus. Her research includes studies on advertising directed at children, children's understanding of advertising and the effects on advertising on children and their families.

Jessica Williams is a postgraduate student in the Division of Psychological and Educational Services at Fordham University, New York. Her research centres on media technologies and education, and the impact of media on children's purchase behaviour and requests.

1
Introduction

Barrie Gunter, Caroline Oates, Fran Blumberg & Mark Blades

Children have been a target for marketers for over 100 years. In the late nineteenth century, legislation was passed in Britain designed to protect children from merchants targeting them with goods (Wilcox et al., 2004). During the first half of the twentieth century, however, as mass media became widely established, children were increasingly targeted by marketers. Concern about this development centred on the ability of children to know when someone is trying to manipulate them to purchase things. Children may begin to make simple distinctions about advertising even by the time they start school, but their full understanding of how it works and what motives underpin it can remain ill formed until their teenage years (Young, 1990; Gunter & McAleer, 1997; Gunter, Oates & Blades, 2005). With rapid recent developments in communications technologies, a range of new advertising techniques has emerged that embed commercial promotions within entertainment content and virtual communication environments, rendering them subtle and difficult to differentiate. Such developments have raised fresh concerns about children and advertising that research is struggling to keep up with. This book aims to review what we know so far about the latest developments in child-targeted advertising and its impact.

The positioning of children as a consumer group to which products and services can be promoted arose following the emergence of 'childhood' not just as a distinct stage of human development but as a 'social strata' within wider society. Before the eighteenth century no clear conception of childhood distinguished children from adults. Only with the very youngest children, those under age 7, were any kinds of distinctions made. At this early stage, these small people were regarded as sources of amusement and also in need of the protection of older people (Aries, 1973).

The establishment of a protected period of early life that allowed the youngest members of society to concentrate on their educational development by legally limiting their availability to work in paid employment accorded them a specific social status that came to be labelled as 'childhood'. This idea of children did not really surface until the nineteenth century. Thus, rather than seamlessly merging into adulthood, 'children' were regarded as having their own distinctive identity that rendered them deserving of special support and protection until they were deemed to have reached a level of maturity, after which they were expected to be able to fend for themselves. During the twentieth century, this period of special protection or privileged support from others extended further with the emergence of 'adolescence' (see Young, 1990).

History of marketing to children

With the establishment of compulsory education of children in the nineteenth century, a rapidly growing number of publications began to be targeted at children. It was during this period that comic books made their first appearance. These were not exclusively marketed at a specific age group, but they proved popular with both children and adult readers. During the years before the Second World War, comic-book publishers' realisation that children were a primary market for their publications led to more systematic efforts to promote comic books to this market.

The emergence of early broadcast media – first radio and then television – opened up new platforms for advertisers. The United States took the lead in this context with a broadcasting system that was commercially funded from its beginnings. Indeed, it was here that commercial promotions surfaced not only in the form of spot advertising, which is now familiar to listeners and viewers around the world, but also as sponsorship arrangements whereby the advertiser associated its name with specific programmes and underwrote some of the production costs. It was through this type of arrangement between soap-powder manufacturers and early radio drama serials that the term 'soap opera' came into being (Allen, 1985).

In the US, advertisers also paid to have their products strategically placed in TV programmes or movies, giving rise to product placement as a further form of advertising. In countries with a strong public service broadcasting tradition, such as the United Kingdom, however, advertisers faced much tighter restrictions on the way they were allowed to advertise on television and radio. Over time, as media systems have evolved, many of these restrictions have been relaxed. Sponsorship of

broadcasts has been permitted in the UK since the late 1980s, and in recent times regulators have even relaxed the restrictions on product placement.

The rise of the Internet has opened up many new opportunities for advertisers and marketers. Not only does this electronic environment provide new platforms for specific advertising messages, but online social networking communities and virtual environments have been created in which consumers are encouraged to become champions of brands as well as passive recipients of promotional messages. Some of these online communities are targeted at children and are focused on consumer-related activity. The presence of these promotional techniques, which represent a tighter integration of advertising and consumer socialisation (that is, children are encouraged to think about consumer commodities and communicate their own tastes to others online), has given rise to concern that such clandestine forms of marketing place children at a distinct disadvantage.

Concerns about marketing to children

General suspicions about the activities of advertisers were fuelled by authors such as Packard (1957), who portrayed advertising as a manipulative enterprise that uses subtle techniques to persuade and even hoodwink unsuspecting consumers into accepting whatever sales pitch was presented to them. Such techniques were used in all advertising, regardless of the target market, but they could be especially powerful when directed at children.

Early concerns about marketing targeted at children centred on children's cognitive abilities to understand and interpret the promotional messages in advertising. The importance of these concerns stems from the ultimate purpose of advertising, which is to promote advertised brands and persuade consumers to purchase them. Because advertisers are inevitably tempted to place a positive spin on their own products or services, it is important that consumers have sufficient insight and experience to be able to judge whether a promotional message is credible. Before they can make this judgement, consumers must be able to identify promotional messages and distinguish them from the diverse array of other media content in which advertising is frequently embedded.

Researchers observed that children's abilities in this context mature gradually as they pass through successive stages of cognitive development. This 'advertising literacy', for want of a better term to describe it, begins with the ability of children to recognise advertising when they

see it and to differentiate it from any surrounding media content. At a more advanced level of analysis, children can make specific judgements about the message content of advertisements, such as determining whether they like the product being promoted, whether they like the way it is being presented in the commercial message, and whether the product as presented matches their own or others' experience with it. At an even more advanced level of interpretation, young consumers develop a more diverse and sophisticated understanding about the general purpose of advertising, the techniques that are used, and the relevance of promotional messages to their own needs and interests.

Children's inability to make these judgements is believed to render them susceptible to manipulation by advertisers, quite possibly leading them to believe too readily the sales pitches being made and to make purchases that eventually leave them dissatisfied. Alternatively, advertisers may encourage children to pester their parents to make purchases on their behalf, with children subsequently finding that the advertised product fails to match up to the promotional hype surrounding it.

A lot of the early research about children's understanding of advertising focused on very young children and whether they could effectively distinguish between advertisements and programmes on television (see Chapter 3). Research methods used in this context included observed changes in children's levels of attention to a television screen when content switched from programming to advertising, children's verbal articulations of differences between advertisements and programmes and children's ability to remember elements from advertisements (Ward, Levinson & Wackman, 1972; Ward & Wackman, 1973; Wartella, Wackman, Ward, Shamir & Alexander, 1979). Some evidence of differentiation between television advertising and other content emerged from this research, but only for children older than 5 or 6 years. Attention to the television screen was observed to decline when an advertising break occurred, and this finding persisted regardless of the genre of programming being watched (Zuckerman, Ziegler & Stevenson, 1978).

Children have been found to provide simplistic distinctions between advertisements and programmes on television even before age 5 (Blosser & Roberts, 1985). Clearly, at a very early age, these types of measures are constrained in what they can tell us by children's limited verbal abilities. Non-verbal measures (e.g., visual attention) have been interpreted to demonstrate children differentiating between advertisements and programmes on television as early as 3 years of age (Kunkel & Roberts, 1991).

Measures of visual attention to the screen, however, were also regarded as providing fairly superficial evidence of children's comprehension of advertising (Levin & Anderson, 1976). As children become more accomplished viewers, they may need to devote less unbroken visual attention to the screen to follow and understand the action on screen. It may be more useful, then, to adopt measures to determine the type and amount of information youngsters extracted from advertising messages in order to understand more about whether they comprehend what they see and hear.

More sophisticated measures of understanding advertising focus on whether children can articulate opinions or judgements about the production features of advertisements and the motives of the advertisers (see Chapter 2). This level of comprehension does not tend to emerge until age 8 or 9 years (Belk, Mayer & Driscoll, 1984; Nippold, Cuyler & Braunbeck-Price, 1988).

Specific production features may also provide important triggers for children that what they are watching is a promotional message rather than a programme, even though the advertisement as a production may be rated as entertaining (Young, 1990). Where advertisements and programmes exhibit shared characteristics, however, such as the use of cartoon characters, this can undermine the ability of young viewers to effectively distinguish between them (Kunkel, 1988). This phenomenon can in turn raise challenges for communications regulators charged with safeguarding the best interests of viewers (Kunkel, 1991).

New concerns related to marketing to children

The generic concerns about marketing to children continue to the present day, but in a changed form that is in part linked to the way the media have evolved in the past 20 years – and especially the past 5 years. A number of concerns have arisen about advertising and children that focus on specific thematic issues connected primarily to advertising for specific types of product. The principal issue here tends to be associated with children's health and well-being. The highest-profile cases in this context are those concerned with the role advertising plays in encouraging children to engage in unhealthy behavioural practices, such as eating the wrong foods and the early onset of alcohol and tobacco consumption (see Chapters 4 and 5). In all three areas, widespread public debate has raged, and in some instances this has resulted in more restrictive legislation of product advertising.

The concerns voiced have centred on the role played by advertising and other forms of marketing on the onset of behaviour such as alcohol consumption, smoking cigarettes and consumption of foods high in sugar, salt and fat content. Research has emerged supporting the hypothesis that advertising can cultivate an interest in alcohol and tobacco products among pre-teenage children, and for some it is believed to play a part in encouraging them to start drinking and smoking (Friedman, Lichtenstein & Biglan, 1985; Gunter, Hansen & Touri, 2010). Early cultivation of interest is often believed to begin with children becoming aware of brands (Emri, Bagci, Karakoca & Baris, 1998; Hastings, Anderson, Cooke & Gordon, 2005; Hastings, MacKintosh & Aitken, 1992). Other researchers have recorded evidence, across a number of product categories, that advertising exposure per se can increase how much children like the brands to which they are exposed in this way (Goldberg & Gorn, 1987; Resnik & Stern, 1977). Further evidence has emerged, however, which casts doubt on whether brand awareness alone can be regarded as sufficient to convert young consumers into alcohol drinkers or smokers (Henke, 1995; Gunter et al., 2010).

In relation to food advertising, a number of comprehensive reviews of the literature have emerged, and conclusions vary about whether the research evidence supports the contention that children can be influenced by advertising in relation to their food preferences and consumption habits (Ambler, 2004; Hastings et al., 2003; Paliwoda & Crawford, 2003). Work undertaken on behalf of the UK regulator, the Office of Communications, concluded that there is broad agreement in the field among researchers who have investigated the issue that exposure to food advertising can have ‘modest’ effects on children’s food preferences, which might in turn translate into consumption behaviour (Livingstone, 2004). The nature of the findings and questionable robustness of much of the evidence, however, was interpreted to mean that it provided no strong case for a radical overhaul of regulations or codes of practice related to food advertising (Ofcom, 2004).

In addition to food being a major concern, researchers have addressed the sexualisation of childhood and the role of advertising and marketing in this context. Several recent publications funded by the UK government have questioned the appropriateness of using sexual imagery to appeal to a child audience, and particularly via digital channels of communication (Buckingham, Willett, Bragg, Russell & Dorrer, 2010; Papadopoulos, 2010). Concerns have been expressed, particularly in relation to girls, about media which prematurely induce children into inappropriate sexual behaviour by exposing them to advertising and marketing

designed for adults, as well as to that designed explicitly for them (e.g., magazines, clothing).

This debate is not entirely new; related research on issues around stereotyping, self-image and body image in advertising, for example, go back to the 1970s (Gunter et al., 2005). However, what is new is the proliferation of messages aimed at children, the apparently intensified sexual nature of such messages and the multiple channels now available, many of which occupy a grey area between advertising and editorial. As Papadopoulos (2010) pointed out in her review of the sexualisation of young people, 'What we are seeing now is an unprecedented rise in both the volume and the extent to which these images are impinging on everyday life' (p 8). However, the effects of such imagery are not yet established, and the authors of another report cautioned against making any emotive judgements on this topic. Buckingham et al. (2010) instead highlighted that 'there appears to be growing concern from a variety of perspectives about the sexualisation of children, and particularly about the role of media and marketing in this respect. However, we have found that this is a complex topic, which is not amenable to simple explanations – or indeed simple policy interventions.' They go on to conclude that 'there is fairly good evidence that sexual imagery has become more widely available within the culture as a whole, including in material that is targeted at, or frequently consumed by, children. However, the evidence about the *effects* of this – whether positive or negative – is limited and inconclusive.'

Evolution of advertising in traditional media

This section turns its attention to new types of advertising in traditional media (on television, in print and in ambient advertising) that include new marketing, such as sponsorship, product placement and whole programme commercials.

As noted above, developments in communications technology since the mid-1990s have opened up many new channels through which advertisers and marketers can reach consumers. Furthermore, in adapting to the formats of new communications technologies, advertisers and marketers have developed more subtle promotional techniques that do not always appear to be what they are. Advertising in established media such as cinema radio and television has evolved as increasingly competitive media environments have encouraged national governments and their appointed communications regulators to relax advertising restrictions.

The advance of technology that has accorded media consumers much greater control over the way they consume media content has also placed pressure on advertisers to seek more subtle ways of promoting their brands to consumers.

Growing numbers of people, for example, now choose to watch television in a non-linear fashion (Gunter, 2010). This has been greatly facilitated by online catch-up TV archives and repositories and by personal video recording technology that can hold large quantities of off-air broadcast content. These technologies not only allow viewers to choose when they wish to watch specific programmes but also give them the means to fast-forward through and skip over traditional spot-advertising messages. As such, programme sponsorship, product placement and other advertising formats that viewers cannot so readily avoid have become more important.

New media and advertising

New communications technologies, including the Internet, computer games, mobile phones, social networking sites, blogging and text messaging, have opened up new platforms for advertisers' promotional messages. These developments have been widely embraced by children, who may be more literate about these new technologies than their parents. For many children, these technologies are an integral part of their everyday lives. However, although children may be adept at handling the technology, their critical evaluation skills are not yet developed in terms of the content.

Advertisers have recognised the importance of the new communication forms for youngsters and have begun to co-opt popular applications in the service of their marketing objectives. In some instances, new media applications linked to the increasingly prevalent social networking sites recruit children as brand champions and engage them in online networks and games that subtly expose them to brands. A government-funded report by Byron (2008) addressed concerns about these newer media forms in terms of parental knowledge, potential risks, age-appropriate content, responsibility for managing and regulating that content, and the role of advertisers themselves in adhering to codes of practice which acknowledge the vulnerability of the child audience. Byron also strongly recommended incorporating children's views to inform the debates around technology to avoid portraying children as helpless victims – they may be vulnerable for reasons mentioned above, but she emphasised that 'we need to move from a discussion

about the media "causing" harm to one which focuses on children and young people, what they bring to technology and how we can use our understanding of how they develop to empower them to manage risks and make the digital world safer'.

It is certainly the case that established stages of recognising and understanding commercial messages in traditional media (e.g., television advertising) do not necessarily carry over to such new media forms as websites and advergames. Work by Ali, Blades, Oates & Blumberg (2009), for example, has shown a difference in children's ability to recognize advertisements across traditional and newer platforms (see Chapter 11) but little understanding currently of how children respond to commercial messages on social media networks such as Facebook and Twitter. We know that children are strongly attracted to digital media such as games (Blumberg, Blades & Oates, 2013), yet more research is needed on how children react to, understand and incorporate newer media into their everyday lives.

Regulating advertising

Research into the effects of advertising on children has fuelled wider debates about how such advertising should be regulated. Regulatory practice attempts to provide broad protection for young consumers regarding advertising across product categories and is, in some areas, supplemented by specific codes of practice linked to particular product domains, such as alcohol, food and tobacco.

Restrictions on advertising have tended primarily to apply to the longer established print and broadcast media. In the case of tobacco, increasingly severe restrictions have been introduced in all developed and many developing countries since the 1970s. In some countries, complete bans against tobacco advertising have been in place for many years. In other specific product areas, such as alcohol and food, restrictions tend to focus on the use of particular types of promotional messages in relation to branding and limiting the times of day or locations where advertising can occur. Such codes are usually designed to restrict children's exposure to the advertising or to ensure that advertisers do not use branding techniques known to hold potentially strong appeal to young consumers.

With newer advertising platforms such as the Internet, regulation often tends to be sparse and extremely limited. The subtlety of advertising techniques in new media domains means they may need even closer scrutiny than the older media, such as newspapers, magazines, radio

and television. Changes in the UK to the ASA's (Advertising Standards Authority) remit means that it now monitors companies' web page content and social media sites like Facebook and Twitter as it does more traditional media, indicating recognition of the need to oversee all media using the same regulatory framework (ASA, 2011). The ASA explicitly states that this extension of its regulatory powers will enhance consumer protection, particularly for children. As an additional measure, the ASA is proactively talking to children and parents to determine their concerns around advertising in a changing environment and has introduced a resource for schools to tackle the 'perceived commercialisation and sexualisation' of childhood (ASA, 2012).

The structure of this book

The rest of this book is divided into 12 chapters that continue to explore the themes we have discussed so far.

Chapter 2 considers when children first understand that the aim of advertisements is to get them to buy or to ask other people to buy products – in other words, when children first recognize 'persuasive intent'. There has been some debate about what age this understanding is achieved, with researchers who have used mainly verbal methods to investigate this question arguing that children do not become aware of the persuasive nature of advertisements until they are 7 or 8 years old. Other researchers who have used non-verbal methods to assess children's understanding have suggested that much younger children may have some sense of persuasive intent. The debate is described in the chapter, along with evidence from a study showing that previous research using non-verbal methods may have led to an overestimation of young children's understanding.

Chapter 3 considers children's attitudes towards advertising. Several authors have suggested that when children first recognize the persuasive nature of advertisements – that advertisements are trying to get them to buy something – typically at about the age of 8 years, they are likely to view advertisements in a critical way and are less likely to believe or trust their messages. But the chapter points out that recent research shows that children can recognize the selling intent of an advertisement while still believing its claims. Children may know that the purpose of advertisements is to get people to buy something but still think they are essentially truthful and honest and providing a service by giving people information about products they want to buy anyway. It is argued that children's scepticism about advertisements develops first from direct

experience of particular purchases, so that when children experience a product that does not live up to their expectations, they stop believing the claims in that product's advertisements. In other words, disappointment with a product leads children to be critical of the accuracy of particular advertisements. But it is not until later that children become sceptical of advertising and promotions in general. Such scepticism only develops some time after children first recognize the persuasive intent of advertisements, and Chapter 3 presents research showing that even at 10 years of age, many children, including ones who might be critical of particular products, remain trusting about advertisements in general.

Chapter 4 explores issues surrounding food advertising and brand promotion to children, with reference to changes in children's diet over the last 40 years and the implications of these changes on children's health – particularly the obesity epidemic in children. The authors describe the types of food promoted in both traditional and new media advertising, as well as the extent of this advertising. They then discuss recent research into the effects of food advertising on the type and amount of children's food consumption, including the effects of advertising on brand preferences. The latter issues are considered with regard to children as a primary market (with independent spending power) and as an influence over family purchases (especially through 'pester power'). The chapter also includes a critical assessment of recent policy and legislation about food advertising in countries, such as the UK, that have banned some types of food advertising to children, and it discusses the implications of new media advertising on all aspects of food marketing to children.

Chapter 5, on alcohol advertising, begins with a discussion of the concerns about young people's alcohol consumption (e.g., underage drinking, young people's 'binge' drinking, drinking that leads to unsocial behaviour and associated health problems). The chapter considers the psychological and social factors that play a part in shaping young people's alcohol consumption and discusses the prevalence and nature of alcohol advertising as a factor in alcohol consumption. It includes a summary of the empirical evidence about the significance of alcohol advertising in both traditional and new media aimed at children and young people. The chapter also considers what is known about the effects of alcohol advertising on young people's alcohol consumption, their attitudes towards alcohol and their beliefs about the norms for alcohol consumption; it reviews the latest findings on this topic, including recent research conducted by the author.

Chapter 6 considers the growth of advertising to children in developing economies, with particular reference to China. With its huge population and rapidly emerging consumer economy, China represents a very important new market for advertisers who aim at young people. The chapter reviews traditional media and new media used by children in China. Issues related to marketing to children in China are considered, along with the different purposes of advertising. Advertising as a source of information about new products and services is examined, and evidence for the effects of advertising in new and longer-established media is critiqued. The author discusses children's understanding of marketing messages, their attitudes towards advertising and perceptions of brands, and the effects of different advertising approaches. She also examines concerns about advertising to children, such as the growth of materialism in a traditionally socially oriented society, the honesty of advertising in a developing economy, and the role of regulation in a new and expanding market. The chapter presents summaries of the author's own research, including contemporary surveys of both urban and rural children in China.

Chapter 7 examines parents' beliefs and attitudes about marketing to children. This chapter takes as a starting point the perspective of parents and their concerns about advertising to children, using extant literature and contemporary cross-cultural data to examine parental attitudes towards marketing to children. The chapter is divided into four parts. First, it reviews parents' beliefs about advertising to children across several countries and also examines differences in concerns by country. Second, the chapter provides a discussion of how children are marketed to; the different media that are used; the extent that parents are aware of these, especially advertising in new media; and the effects of advertising on purchase requests and behaviour. Third, it explores notions of responsibility and regulation, especially with regard to new media. Fourth, it examines the implications of the shift of marketing communications from traditional channels to newer forms of promotion.

Chapter 8 focuses on the family's role in children's interpretation of advertising and looks at parental communication, which is often considered the most effective way to influence marketing to children. Several studies have shown that parental communication can modify children's responses to advertising and reduce its undesired effects, including materialistic attitudes, parent–child conflict and unhealthy eating habits. The chapter has four sections. The first examines the different types of communication about advertising used by parents, as well as more general consumption-related communication. The second

section examines the content of that communication and different communication styles (e.g., open discussion or restricted rule-making). The third section discusses how the role of parental communication varies in different families (e.g., by parenting style, income status, educational background) and according to children's characteristics (e.g., age, sex and media use). The fourth section addresses the implications of new marketing to children and what it means for public policy and future research.

Chapter 9 examines media literacy and the young consumer. Media literacy is the ability to access, analyze, evaluate and create messages across a range of diverse media contexts (including print, audio, television and the Internet). Typical media literacy programmes for children not only incorporate the above abilities but also include teaching children how media functions and its power to influence attitudes and behaviours. With regard to the latter, the key aspect of nearly all media is the relationship between the medium and the advertising messages it carries. For example, children need to be able to identify what is and what is not an advertising message (see also Chapter 11), be aware of the purpose and persuasive intent of advertising messages and develop critical skills in interpreting such messages. Children also need to develop an understanding of how marketing and advertising directly and indirectly influence the production of media. This chapter considers the role of legislators in the regulation of media in general and advertising in particular, the role of educators in informing children about advertising in developmentally appropriate ways and (linked to Chapter 8) the role of parents and families in helping children make informed decisions about the goals and veracity of marketing information to which they are exposed.

Chapter 10 considers the influence of product placement on children. Product placement has become increasingly common in entertainment media, and children are likely to encounter this subtle form of advertising on television and in new media – especially in the context of advergames (see Chapter 12). This chapter gives examples of product placement in different media and describes recent research into the effects of product placement on children's recognition of brands and their preferences for those brands. The chapter includes a discussion of how product placement might influence children's choices, with reference to the unconscious effects of advertised products that might not be explicitly remembered, the effects of repeated exposure to product placement (e.g., when children play video games many times), whether children must already be familiar with a brand for product placement to

be effective, and the effects of product placement in positive and negative contexts. The role of policy makers in regulating product placement aimed at children is also discussed.

Chapter 11 discusses what we know about children's awareness of advertising on the Internet. This chapter considers the movement of advertising revenue from traditional media, such as television, to newer media, such as the Internet. Past research has established when children can distinguish between advertising and programmes on television, but there is much less research into how children identify an advertisement in other media. The chapter includes a summary of recent research investigating when children and young people realize that some of the images they see on a web page are advertisements and what strategies they use to distinguish between marketing and other messages on the Internet. The chapter notes that the established views about children's ability to identify an advertisement (based on television research) do not apply to other media and that children may be particularly confused about the type of messages they see on a typical web page. Implications for educating children about Internet advertising are considered.

Chapter 12 points out that one reason why children spend so long on the Internet is the presence of 'advergames' – interactive computer games designed by marketers and aimed at attracting and keeping children's attention. Advergames involve children in various activities often related to the products being marketed and encourage children to purchase these products in return for special privileges. Advergames raise numerous issues about new media advertising to children.

In Chapter 13, we summarise the main themes of the book, with particular emphasis on new media marketing and its effects on children. This includes suggestions about key areas for future research, the role of regulation in the Internet age and the role of adults (governments, teachers and parents) in informing and educating children about the nature of marketing in new media.

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2

Do Very Young Children Understand Persuasive Intent in Advertisements?

Moondore Ali & Mark Blades

Advertising is a ubiquitous part of children's lives. Children are exposed to advertisements on a range of media platforms, such as television, print, and the Internet (American Academy of Pediatrics, 2006; Buckingham, 2009; Kunkel et al., 2004; Kunkel, 2001; Moore, 2004; Moore & Lutz, 2000; Moses & Baldwin, 2005). Television is still one of the primary advertising media used to reach children (Buckingham, 2009), probably because of children's increased access to their own television (Rideout, Foehr & Roberts, 2010).

Empirical research has been carried out on a range of issues related to children and television advertising. For example, researchers have examined children's ability to distinguish between television advertisements and programmes, the impact of advertisements on children's physical health and purchase preferences, and children's understanding of the intent of television advertisements (Buckingham, 2009; Gunter, Oates & Blades, 2005). This chapter focuses on when children can first understand the persuasive intent of advertising – that is, when children become aware of the purpose of advertisements to persuade people to buy the advertised products.

Much research effort has been devoted to children's understanding of the persuasive intent of advertising (Friestad & Wright, 2005; Gunter et al., 2005; Moses & Baldwin, 2005; Young, 1990). Many researchers believe that most children develop a robust understanding of the persuasive intent of advertising by about 8 years of age (Buckingham, 2009; Gunter et al., 2005; John, 1999a, 1999b, 2008; Kunkel & Gantz, 1992; Kunkel et al., 2004; Young, 2003). Some researchers have suggested that

understanding the persuasive intent of advertising is crucial in defending oneself against the potential exploitation of advertising. It has been argued that children who have an understanding of the persuasive intent of advertising will be more able to critically evaluate advertisements (Boush, Friestad & Wright, 2009; Friestad & Wright, 1994; John, 1999a, 1999b, 2008; Moore, 2004; Moses & Baldwin, 2005; Smith & Atkin, 2003). Other researchers have suggested that before children are capable of recognizing the persuasive intent of advertising, they are more susceptible to being misled by advertisements (American Academy of Pediatrics, 2006; Eagle, 2007; Kunkel, 2001; Kunkel et al., 2004).

When children first become aware of the purpose of advertisements is important. If children who do not appreciate the persuasive intent of an advertising message are more susceptible to that message, then it would be appropriate to consider regulation to stop or reduce advertising to young children. When such regulation should apply will depend on a consensus about when children first recognise persuasive intent. Although the researchers cited above (e.g., Kunkel et al., 2004) have concluded that children do not understand persuasive intent until after 7 or 8 years of age, others have argued that much younger children do have an awareness of advertising (see below). If so, it follows that regulation would be less necessary or less appropriate. Therefore, the age when children start to understand the persuasive nature of advertising has important implications for policy about regulating advertisements aimed at young children. In this chapter, we will discuss those studies that have led to the suggestion that young children do indeed understand advertisements, and most of that discussion will focus on the methodologies used in studies with young children.

Direct measures of understanding

Previous studies assessing children's understanding of the persuasive intent of advertising have employed both direct and indirect measures of this understanding. Direct measures require children to express their understanding in their own words or by choosing from a set of answer options presented verbally or in written form. Examples of direct measures include questionnaires administered in a verbal or written form, personal interviews, and group discussions. Indirect measures do not require children to express their understanding through their own words or in written form. Instead, children express their understanding through other means, such as pictures and behaviour. Examples of indirect measures include asking children to select a pictorial answer choice,

act out their answers and evaluate the appropriateness of advertisements' endings and slogans. Direct measures in the form of personal interview or group discussion have been used in the majority of studies (Bergler, 1999; Blosser & Roberts, 1985; Lawlor & Prothero, 2003; Martensen & Hansen, 2001; Oates, Blades & Gunter, 2002; Oates, Blades, Gunter & Don, 2003). Children in such studies are typically asked directly to express their view on advertising. Variants of questions such as 'What is an advertisement?' and 'What are advertisements trying to do?' have been used. Children's responses have been scored as either demonstrating or not demonstrating an understanding of the persuasive intent of advertising. Responses such as 'to convince people to buy things' and 'to make you buy them' have been taken as evidence of understanding of the persuasive intent of advertising (Gunter et al., 2005). Studies that used personal interview or group discussion have typically found that children show an awareness of the persuasive intent of advertising by about 8 years of age.

Direct measures in the form of questionnaires have also been used in some studies (Boush, Friestad & Rose, 1994; Chan & McNeal, 2006; Martensen & Hansen, 2001). Questionnaires are often administered to children in written form, although in some cases younger children have been given the questionnaires verbally, with the experimenter reading out loud the questions and answer choices. Questions in questionnaires have been similar to those used in interview studies, but children have been given a set of answers to choose from. Children were scored as understanding the persuasive intent of advertising if they chose the correct answer. Consistent with interview and group discussion studies, research in which questionnaires were used found that children demonstrated awareness of the persuasive intent of advertising by 8 years of age.

Indirect measures of understanding

Some researchers (e.g., Macklin, 1987; McAlister & Cornwell, 2009; Young, 2003) have suggested that indirect measures are more appropriate when assessing young children's understanding because direct measures place a demand on children's abilities to express their understanding in language. The indirect measures that have been used have often included questions similar to the ones used in direct measures (e.g., 'What are advertisements for?'). But instead of being asked to answer verbally, children were presented with a set of pictures depicting different activities and asked to choose one of the alternatives (Bijmolt,

Claassen & Brus, 1998; Donohue, Henke & Donohue, 1980; Macklin, 1987; McAlister & Cornwell, 2009; Owen, Auty, Lewis & Berridge, 2007).

For example, after presenting a cereal advertisement, Donohue et al. (1980) asked children what they thought the advertisement wanted them to do, and offered the children a choice of two pictures. One picture depicted a woman and child buying the advertised cereal in a shop, and the other picture depicted a child watching television. Choosing the shopping picture was taken as indication that the child understood the persuasive intent of advertisements. It was found that three-quarters of the 3-, 4- and 5-year-olds and nearly all 6-year-olds chose the correct picture. Based on these results, Donohue et al. concluded that children as young as 3 years of age have some understanding of the persuasive intent of advertisements.

The validity of Donohue et al.'s (1980) findings has often been questioned (e.g., Gunter et al., 2005; Kunkel, 1988; Kunkel et al., 2004; Macklin, 1987). For example, Macklin (1987) pointed out that only one of the two pictures (the shopping picture) presented to the children featured the cereal in the advertisement. Therefore, children might have chosen the 'correct' picture because it was the only one that included the cereal. Macklin repeated Donohue et al.'s experiment using ten pictures, three of which featured the cereal product and only one of which depicted a shopping event. As in Donohue et al.'s (1980) study, Macklin (1987) presented children with the pictures after the children watched a cereal advertisement. The children were then asked to choose the one that showed what they thought the advertisement wanted them to do. In contrast to the findings of Donohue et al., Macklin found that none of the 3-year-olds chose the picture depicting a shopping trip and fewer than one-tenth of the 4-year-olds and only one-fifth of the 5-year-olds chose this picture. Gunter et al. (2005) also pointed out that because three of the ten pictures featured the cereal product, there was a 30 per cent chance that a child would choose the correct (shopping) picture because the picture featured the product. The proportion of 5-year-olds who chose the correct picture in Macklin's study was thus no better than would have been expected by chance.

Since Donohue et al.'s (1980) study, other researchers have also examined children's understanding of advertising using picture-selecting measures. In the first experiment reported by McAlister and Cornwell (2009), children were presented with five advertisements, each featuring the product, the brand logo, a price and brand logo images on the product. Children were then shown a picture of a cartoon man whose clothes showed the relevant brand logo and were asked what the man

wanted them to do. Children had to respond by choosing the correct picture from a set of three activity pictures. For example, one of the advertisements was for KFC (a chain of fast-food restaurants). For this advertisement the correct picture depicted a person sitting at the dinner table with a KFC bucket. The other two pictures depicted the use of the product in ways that were irrelevant to the advertisers' intentions; for instance, one of the incorrect picture options depicted a person playing a drum with chicken drumsticks, with a picture of a KFC bucket on the drum. It was found that children as young as 5 years of age chose the correct picture in over two-thirds of the trials. This could be interpreted as children showing an understanding of the persuasive intent of advertising at an earlier age than indicated by studies that employed direct measures. But it is important to note that all advertisement stimuli used in McAlister and Cornwell's (2009) measures included brand logos that were recognizable to most of the children. It is therefore possible that children might have responded correctly because they associated the presented brands with particular activities rather than because they recognized the persuasive intent of advertising. For example, children might have associated KFC with eating rather than with playing drums.

Moreover, given that children are exposed to a huge number of advertisements from a young age, it is plausible that even young children recognize that advertisements typically show activities that are relevant to the nature of the product (e.g., advertisements for food products often show people eating the food) rather than other activities that involve using the product in place of more appropriate items (e.g., playing drums with chicken drumsticks). Therefore, it is questionable whether children as young as 5 years have such a robust understanding of the persuasive intent as suggested by McAlister and Cornwell. Additional caution must be taken when evaluating the findings from studies that employ advertisements or brands that are already familiar to children.

In some cases, such studies have been carried out with older children. For example, Bijmolt et al. (1998) showed an advertisement for a chocolate drink to 5- to 8-year-olds, and then showed the children three pictures and asked them to choose the picture that best indicated what the advertisement wanted them to do. The pictures showed the chocolate drink in a shop, a mother and child buying the drink, and a picture of a television advertisement showing the drink. The children in the study were considered to be correct if they chose the picture of either the drink in the shop or the mother buying the drink. Since two of the three pictures were counted as right answers, there was a 66 per cent chance of the children being correct even if they had been guessing. In

fact Bijmolt et al. found that just two-thirds of the children chose the correct pictures, which was no better than chance. Although reported as evidence of children's understanding of advertising, the lack of an unambiguous result in picture tasks suggests that picture selection tasks are not an effective way of assessing that awareness.

Asking children to respond by acting out their answers is another form of indirect measure that has been used. Macklin (1987) showed children a cereal advertisement on television, then asked them to show what the advertisement wanted them to do in a room with three play areas: a play kitchen, a play outdoor restaurant and a play store, each of which featured the advertised cereal. Children who acted out a shopping event were scored as having an understanding of advertising intent. Macklin (1987) found that none of the 3- and 4-year-olds acted out a shopping event but over one-third of the 5-year-olds did. However, Gunter et al. (2005) pointed out that Macklin's study did not include a control group. So it is not possible to establish whether children who displayed shopping behaviour did so because they understood that the advertisement's aim was to make people buy the product or because they enjoyed playing in the shop more than playing in the other areas.

Do young children understand persuasive intent?

In summary, researchers using direct measures, such as verbal questioning, have typically found that children start to develop an understanding of the persuasive intent of advertising by about 8 years of age (Bergler, 1999; Chan, 2000; Lawlor & Prothero, 2003; Martensen & Hansen, 2001; Oates et al., 2002; Oates et al., 2003). In contrast, researchers who have employed indirect measures, such as choosing pictures, have suggested that children are able to recognize the persuasive intent of advertising at a younger or much younger age (Bijmolt et al., 1998; Donohue et al., 1980; Macklin, 1987; McAlister & Cornwell, 2009; Owen et al., 2007; Pine & Veasey, 2003). However, as we have emphasized above, many of the studies using indirect measures to assess children's understanding have limitations. When these studies are considered carefully, the findings they present are not always convincingly better than chance performance, and some have methodological limitations, such as the lack of a control group.

The issue of when children first have some awareness of advertising intent is an important one. If young children lack an understanding of the persuasive nature of advertisements, it follows that there should be

guidelines and regulations to protect children from the effects of marketing. However, if children do understand intent, and if this understanding makes them more critical of advertising (John, 2008; Boush et al., 2009; Moses & Baldwin, 2005), then there may be less need for protective regulation. Hence, the debate about when children can appreciate the nature of advertising has serious implications for any guidelines about the age when it is acceptable to target young children with advertising messages. As we have emphasized, the studies that have suggested an early awareness of advertising have several limitations. Hence, what are needed are investigations that avoid the limitations of those studies. We note one study (Ballard-Campbell, 1983) that did overcome some of the methodological limitations described above, and the results of this study stand in contrast to the ones considered above.

Ballard-Campbell (1983) replicated Donohue et al.'s (1980) study, with some modifications. He showed two toy advertisements (Nerf Cycle and Superjock Basketball) to children aged 4, 6 and 8 years. Children were then presented with three photographs (a child and mother at the store buying the advertised products, a child watching the advertised product on television and a child playing with the advertised toys). The children were asked to point to one of three photographs to indicate what the advertisement wanted them to do. Unlike other studies, the advertised products were clearly presented in each photograph. Then, in a direct measure of understanding, the children were asked to explain the reason for each of the advertisements.

Ballard-Campbell (1983) found that only one-tenth of the 4-year-olds, one-third of the 6-year-olds and four-fifths of the 8-year-olds correctly pointed to the correct photograph, the one indicating purchasing behaviour (i.e., the one with the child and mother at the store buying the advertised products). Children therefore performed less well in this study than in similar studies because only the 8-year-olds were better than chance, and this might have been because in the Ballard-Campbell study the products were presented clearly in every picture. When the children were asked to explain the purpose of advertisements, less than one-tenth of the 4-year-olds, one-fifth of the 6-year-olds and three-quarters of the 8-year-olds demonstrated any awareness of persuasive intent. The latter results were only slightly poorer than their performance on the picture task. Therefore, Ballard-Campbell demonstrated that, with a better-controlled procedure, children did not perform differently in a direct task than in an indirect task, and there was no evidence that children younger than 8 years old had any insight into persuasive intent.

Model task

We conducted a series of experiments in the UK based on the indirect studies like Macklin's (1987). The experiments were designed to avoid the limitations of previous studies. For example, in Donohue et al. (1980) and Macklin (1987), the pictures shown to the children were not presented in random order and only some (but not all) of the pictures included the advertised product, so both these factors may have biased children's responses. Most importantly, neither of these researchers, nor other more recent ones (Owen et al., 2007), made sure that all the pictures shown to children were equally attractive. It may have been the case in all these studies that some pictures were more likely to be chosen by children irrespective of their knowledge about advertising. The pictures in previous studies were not always illustrated, but when they were illustrated, or described, it is clear that the shopping picture usually included more features and more activity than the non-shopping pictures. Therefore, children may sometimes have chosen the shopping picture in preference to the others because that picture appeared to be the most interesting or attractive one.

Instead of using pictures, we used five models. These models included a shop, a kitchen, a dining room, a sitting room and a garden. Doll's house models were used because researchers have suggested that young children understand and perform better when using models rather than pictures (DeLoache, 1986; DeLoache & Burns, 1994). For example, DeLoache and Burns asked 2- and 3-year-olds to point to pictures or to the models of a room to indicate where they had previously seen a toy hidden in the actual room. Children in the model condition were better at finding the hidden toy than children in the picture group. DeLoache and Burns suggested that pictures may not always show things realistically and may be particularly confusing for young children. Therefore, to avoid any ambiguity, models were used instead of pictures.

Three other methodological changes to the earlier studies were made. First, we included a control group of children who were not shown an advertisement but were just asked to choose one of the models after watching an extract from a television programme. If the shop model was no more or less attractive than the other models, it was expected that, in the control condition, the shop would be chosen one-fifth of the time (i.e., at the level of chance). Second, every one of the models included a miniature representation of the advertised product (so that children could not select a model simply on the basis of whether it included a product). Third, the five models were presented in different random

positions for each child (in case children were biased in choosing a particular model depending on its spatial position).

In both Donohue et al. (1980) and Macklin (1987), it was not clear whether the children were already familiar with the products used in those studies. If the children had been familiar with the products, they may have chosen the shopping picture just because of previous experience of seeing those products in shops. Therefore, we included two conditions with advertisements. In both conditions children were shown unfamiliar advertisements (so they could not be biased by previous experience of the advertisement itself), but in one condition children saw an advertisement for a popular cereal that would be familiar to them, while in the other condition children saw an advertisement for a milk drink that was not available in the UK. If previous experience of the product had any effect on the children's performance, there might have been a difference in results between the two conditions. Specifically, if children already associated the cereal with shops, then they might be more likely to choose the shop model in the cereal condition than in the milk drink condition, because the milk drink should have no associations for the children.

Ninety children were included in the study, with equal numbers of 5-, 6- and 7-year-olds, and ten children of each age group were in each of the three conditions. In one condition, like Donohue et al. (1980) and Macklin (1987), children were shown a cereal advertisement. This was a television advertisement (broadcast in the UK in 1983) for Kellogg's Rice Krispies, showing a young boy and girl eating the cereal at breakfast. This was, therefore, a familiar product, but as the advertisement had been broadcast many years before any of the children had been born, it was not one that any of them could have seen before, and therefore, they could have no pre-existing assumptions about this particular advertisement. In a second condition, children were shown an advertisement for Milo chocolate milk drink from South Africa, which was recorded from South African television. The advertisement showed a young boy running along a beach racing a dolphin that is swimming parallel to the shore and then the same boy winning a running race in a stadium. At the end of the stadium race, the boy holds up a trophy and a glass of Milo. Both the Rice Krispies and the Milo advertisement were 30 seconds long.

In the third, control, condition, the children were shown a 30-second extract from a South African television programme. The extract showed the programme presenter visiting a viewer's house where two young children (a boy and girl) lived. The children showed the presenter a drawing, and then the presenter and children played with the children's

pets. There were no references to any products in the programme. None of the children in the experiment had seen the television programme before.

Seven model rooms were used in the experiment: two for a practice task (a bathroom and a bedroom) and five for the experimental task. The models for the experimental task were a shop, a kitchen, a dining room, a sitting room and a garden (see fig. 2.1–2.5). Each model included appropriate toy furniture obtained from a specialist model-making shop. This toy furniture was different from the toy furniture that the children typically played with in their nurseries and schools to avoid any previous associations with the items. The rooms included furniture typical for the type of room; the garden had a garden table with two chairs, a sundial and two ponds, for example, and the shop included a cash register, two display cupboards and another cupboard and was filled with miniature vegetables, food cans, and bottles.

The practice task was used to explain the nature of the task and to help the children feel comfortable before they did the main part of the experiment. A child was given a small doll, the same gender as the child was, and told he or she would be asked questions about where the doll

Figure 2.1 Model of shop.

Figure 2.2 Model of kitchen.

Figure 2.3 Model of dining room.

Figure 2.4 Model of sitting room.

Figure 2.5 Model of garden.

should go. The child was shown and asked to name the two models (bathroom and bedroom) and was then told that the doll had got dirty playing in some mud. Then he or she was asked where the doll would go if it had got dirty. All the children correctly placed the doll in the model of the bathroom, indicating that they all understood the necessary procedure for the study.

After the practice task, the children were shown the five models for the experimental task and asked to name them. The models were placed in a different random order for each child. Each of the five models included the product shown in the advertisement. If the child watched the Milo advertisement, a Milo product was included in each model, and if the child watched the Kellogg's advertisement, the Kellogg's product was included in each model. The products were made using miniature cans and boxes. The presence of the product in every model was to avoid the children selecting a model just because it was the only one that contained the brand they had seen in the advertisement. There was no product in the control condition.

Then the child was given a new doll and told he or she was going to watch television. In the advertisement conditions, children saw either the Kellogg's or Milo advertisement. In the no advertisement condition, children saw the programme extract. After they watched the television extract, children were told (in the advertisement condition), 'Now that was an advert. What does it want the doll to do? Can you look at the models again and show me where the advert wants the doll to go to?' This wording of the question was similar to the question used by Macklin (1987). If the child did nothing, the experimenter would use a prompt and say, 'You can take the doll to any of the models. Which one does the advert want the doll to go to?' The child's choice of model room was noted. (In the control condition, the same wording was used but children were told that they had watched a programme and then asked where the programme wanted the doll to go to.) It was expected that children who understood the purpose of the advertisement would take the doll to the model of the shop.

After completing the model task, the children in the Kellogg's and Milo conditions were given a verbal task so that their direct understanding of advertisements could be compared with their performance in the indirect model task. For the direct task, the children were asked five questions about advertising. The questions were based on those used by Oates et al. (2002) and included three specific questions about the purpose of advertisements: 'What are adverts for?'; 'Why do we have adverts?'; 'Could you tell me more about adverts?'.

Children's answers to these questions were scored according to the most sophisticated answer they gave to any one of the three questions. Children's answers were categorized as follows: If a child said (for example) 'to make people want to buy things' or 'for making people go and buy it', these responses showed that children understood the persuasive intent of advertising. Children who gave responses like 'to tell you something is being sold at the shop' or 'showing people about how much it cost in the shop and is it healthy or not' were categorized as children who understood advertisements as a source of information. Children who gave responses like 'for you to get dressed while you are watching it' or 'instead you just sit on, you could have a rest' or 'it shows you funny things' were categorized as children who thought advertisements were for a break or to entertain. Some children said 'don't know' or did not give an answer.

There was no difference between the children's performance in the Kellogg's and Milo conditions. In other words, previous familiarity or lack of familiarity with a brand made no difference to children's performance in the task. Therefore, these two conditions were combined and compared to the control (no advertisement) condition.

The control condition (the television programme) was important to show that there was no bias in children's choice of model. As discussed above with regard to the earlier experiments with pictures, it is possible that children chose one picture rather than another because it was more attractive. Therefore, it was important to show that, in the control condition, the model shop was *not* chosen any more often than would have been expected by chance, that is, in 20 per cent of the trials. The percentage of control trials when children went to the shop was: 5-year-olds, 30 per cent; 6-year-olds, 20 per cent; and 7-year-olds, 10 per cent. None of these figures differed significantly from chance, and therefore, there was no reason to believe that the shop was more attractive than the other models. In other words, if the children went to the shop in the experimental condition, it would be due to the effect of the advertisements, not because the model of the shop was, for any reason, intrinsically attractive to young children.

In the (combined) experimental condition, the percentage of children choosing the shop was: 5-year-olds, 10 per cent; 6-year-olds, 15 per cent; and 7-year-olds, 15 per cent. These percentages were no better than chance (20 per cent). There was no difference between the children's performance in the experimental condition and in the control condition. For all three age groups in both conditions, the children's choice of the shop was at chance. This pattern of results does not suggest that any of the children recognised the intent of the advertisements.

Table 2.1 Categorisation of children's responses to the questions about advertisements

	5-year-olds	6-year-olds	7-year-olds
Don't know	40%	25%	15%
For a break	20%	20%	10%
To inform	25%	30%	25%
To persuade	15%	25%	50%

As described above, the children in the combined experimental group (n = 60) were asked three questions about the purpose of advertisements which were coded for the children's understanding of advertising. Children were categorised as follows: ones who thought that advertisements were just for a break, ones who believed advertisements were to inform, or ones who believed advertisements were to persuade people to buy products. The percentages of children's responses in each category are shown in Table 2.1. The older children were the more likely to give more sophisticated responses.

The children's performance in the indirect (model) task and in the direct (verbal) task was compared. The children were divided into two groups: those who understood persuasive intent (as shown in the last row of Table 2.1) and those who did not understand persuasive intent in the direct task (i.e., children in the first three rows of Table 2.1). Within each group were children who went to the shop and who did not go to the shop in the model task. It was expected that the children who understood persuasive intent in the verbal task would be more likely to go to the shop in the model task. However, there was no relationship between the two tasks. In other words, even those children who demonstrated an awareness of persuasive intent in the verbal task were no more likely to go to the shop in the model task. This result suggested that an indirect task like the model task is not an effective way of measuring children's understanding of persuasive intent and that previous researchers who have used indirect measures (like model and picture tasks) may not have been assessing persuasive intent at all.

Summary of experiment

In this experiment, children's understanding of advertisements was tested with direct and indirect measures. The indirect measure (the model task) was based on the type of methodologies used by previous researchers (e.g., Donohue et al., 1980; Macklin, 1987) but was designed

to avoid the methodological limitations of previous studies. In particular, and most importantly, we included a group of children (the control children in the non-advertisement condition) who went through the same procedure as the children in the experimental conditions, but no mention of advertisements was made to the control children. The control children only watched a programme extract and were then asked to choose a model. The performance of each age group in this control condition was no better than chance. Chance was 20 per cent, and overall, children in the control task chose the shop model on 20 per cent of the trials. This meant that the shop was no more or less attractive than the other models and that there was no reason to believe that children would chose (or avoid) the shop model because it was in some way more attractive (or more unattractive) than the other models.

The experimental groups were shown an advertisement (for a cereal or a milk drink) and then asked to show what the advertisement wanted them to do. This was the same instruction that previous researchers have used. Previous researchers had asked children to point to one of a choice of pictures; we asked children to take a doll to a model because using a model may be a more appropriate task for young children (DeLoache & Burns, 1994), but otherwise the procedure was the same as used in previous non-verbal tasks (Macklin, 1987).

The children who were shown the advertisement did not go to the shop model any more often than would be expected by chance, and the children in the experimental group did not perform significantly differently from the control group. Therefore, contrary to predictions based on previous research that children would go to the shop model, there was no evidence that children who were asked where they should go in response to the advertisement were likely to choose the shop. This was the case for all age groups. This result therefore does not support Donohue et al. (1980), who found that children as young as 3 years old pointed to a shopping picture after seeing an advertisement. Nor does it support Macklin (1987), who found that 5-year-olds pointed to a shop picture. As we have suggested above, the success of children in those studies may have been related to the studies' method that could have biased the children towards choosing the shopping picture. Having removed those biases in the present experiment, there was no evidence that young children associated a television advertisement with a shop.

In both Donohue et al. (1980) and Macklin (1987), it was not clear whether the children were already familiar with the products used in those studies. If the children had been familiar with the products, they

may have chosen the shop picture because of previous associations between the product and going on shopping trips. We examined that possibility by including familiar and unfamiliar products in the two experimental conditions. If children associated the Kellogg's cereal as something they had seen in a shop, we thought they would be more likely to choose the shop model in the Kellogg's condition than in the Milo condition (because none of the children would have seen the Milo product before). But there was no difference between the Kellogg's and the Milo conditions and therefore no evidence that familiarity was a factor in children's choice of the shop model.

As there were several methodological differences between the present experiment and the studies by Donohue et al. (1980) and Macklin (1987), it is not possible to say which particular differences (or combination of differences) may have led to the different results. The differences in our study included our use of models (rather than pictures); making sure that the shop model was no more or less attractive than the other models; including the product in every model scene (rather than just in some scenes); and randomizing the position of our models in each trial. Other, more recent researchers have also argued that children can associate advertising with a picture of shopping (e.g., Bijmolt et al., 1998; McAlister & Cornwell, 2009), but as discussed above, it is not clear whether children chose the shopping picture because they understood the purpose of advertising or for some other reason associated with the methodology of the study.

The present experiment included a verbal measure – a direct test of children's understanding of persuasive intent. By the age of 7 years, half the children gave a verbal response that indicated an understanding of persuasive intent. This result corresponds with findings from previous researchers (Gunter et al., 2005; Kunkel et al., 2004) who have argued that understanding persuasive intent is developing from about 7 or 8 years of age. However, there was no relationship between the children who performed well on the indirect task (i.e., went to the shop) and the ones who performed well on the verbal task (i.e., understood persuasive intent). The fact that even the children who showed a good understanding of advertising in the verbal task did not necessarily go to the shop model suggests that indirect measures may not be useful ways to assess advertising awareness.

In most previous studies, children were only given an indirect task, or the indirect task was the first task given to children (Donohue et al., 1980; Macklin, 1987). This was also the case in the study described above, and therefore the timing of the indirect task cannot account for

any differences between our study and previous ones. Nonetheless, it is possible that giving very young children the indirect task may put them at a disadvantage if they have not had the chance to place that task in some context. Put another way, when children were asked to watch the television and take the doll to one of the models, the advertising context may not have been particularly apparent to them. In a second experiment, we repeated the study described above, using exactly the same procedure, except that the order of the tasks was reversed; children were asked the verbal questions first and carried out the model task second. Therefore, the children had the opportunity to think and talk about advertising before they were asked to do the model task – which might have led to better performance on the model task. But in fact, the children in this second experiment performed exactly the same as the children in the first experiment, and the greater emphasis on advertising before the children did the model task had no effect on their pattern of responses.

Conclusions

We suggest that past studies claiming to have found evidence of very young children's ability to understand advertising may have exaggerated the children's abilities. In typical previous studies, children were shown an advertisement and then asked to indicate what the advertisement wanted them to do by selecting a picture or a model that depicted a shopping scene. But in many cases, these studies had methodological limitations. One of the most serious limitations was the failure to consider the children's performance against chance expectations, so performance that might have been the result of children guessing has, instead, been reported as evidence of their ability to recognize persuasive intent. A second limitation was the failure to consider whether all the images from which the children had to choose were equivalent. In some experiments the picture of the shopping scene was the only one to include the advertised product, or it might have been the most attractive of all the pictures. For these reasons, amongst others, past studies may have wrongly interpreted children's performance as indicating an awareness of persuasive intent, when that performance was more likely to have been an outcome of the way those studies were designed. Therefore, there is little evidence that very young children recognize the persuasive intent in advertising. This means that such children may still need to be protected from the effects of advertising, because they are too young to appreciate the nature of marketing messages.

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3
The Development of Children's Scepticism About Advertising

Maria T. Chu, Mark Blades & Jane Herbert

Introduction

In this chapter we will review the evidence about children's beliefs about advertising and advertisers' motives. There is much evidence that children, even young children, can be sceptical about advertising, but there is less evidence about the reasons for that scepticism. As noted in Chapter 2, children begin to understand the persuasive intent of advertising at about 7 or 8 years of age (Kunkel et al., 2004). That is, children after about age 8 are aware that the purpose of advertising is to persuade a consumer to buy a product.

Understanding persuasive intent is a major change in children's awareness of advertising, and it is sometimes assumed that this awareness in itself is the equivalent of an adult-like understanding of advertising (Gunter, Oates & Blades, 2005). The implication is that once children appreciate the persuasive nature of advertising, they will start to be critical of the motives of advertisers and become sceptical about the claims in advertising messages. But, as we will point out in this chapter, there may be different reasons why children become sceptical of advertisements. We argue that even when children are old enough to understand persuasive intent, they may remain less sceptical than adults about the motives of advertisers. Hence, children may have an apparently sophisticated understanding of advertising (i.e., recognize its persuasive nature) but still believe or trust in advertisements. We begin with a brief review of the research into adults' scepticism towards advertisements.

Adults' scepticism towards advertisements

Most adults hold negative attitudes about advertising. Researchers have found that adult consumers often perceive advertisements to be manipulative and misleading and that the majority of adults are sceptical towards advertisements in general (Alwitt & Prabhaker, 1992; Andrews, 1989; French, Barksdale & Perreault, 1982; Gaski & Etzel, 1986; Heath & Heath, 2008; Hunt & Chonko, 1984; Kelley, 2007; Mittal, 1994; Sheth & Sisodia, 2005; Smith, 2005; Varadarajan & Thirunarayana, 1990).

Adults' scepticism about advertisements has remained constant over time (Calfee & Ringold, 1994; Gaski & Etzel, 2005). The majority of adults hold the view that even though advertising can provide useful information, the aim of advertising is to persuade people to make unnecessary purchases and that advertising is often untruthful. Some researchers have suggested that if most consumers' scepticism is a stable characteristic (e.g., Obermiller & Spangenberg, 1998), advertising research should be based on the presupposition that adults do not trust advertisements unless they have specific reasons for doing so (Calfee & Ford, 1988).

Several factors have been proposed as reasons for adults' scepticism. Researchers have proposed that consumers' scepticism is underpinned by their negative beliefs about advertising strategies, their beliefs about the relationship between advertising and materialism in society, and their beliefs about the effect of advertising on values in society (Boush, Friestad & Wright, 2009; Friestad & Wright, 1994; Pollay & Mittal, 1993). Others have suggested that the extent of adults' scepticism may vary depending on the type of advertisement and how easy it is to verify advertising claims before purchasing a product (Feick & Gierl, 1996; Ford, Smith & Swasy, 1990). Scepticism may also be affected by adults' perception of the effort that advertisers put into their campaigns, and adults may be more sceptical if they think a business uses too much advertising (Homer, 1995; Kirmani, 1997). Adults may remain sceptical towards advertisements even when advertisements include only accurate claims (Pollay & Mittal, 1993; Zaichkowsky & Sadlowsky, 1991) or when the positive advertising claims in advertisements have been confirmed by objective sources (Beltramini & Stafford, 1993).

Scepticism towards advertising has different dimensions. Adults can be sceptical about the truth of particular advertising claims, and about the motives of the advertisers (Ford et al., 1990). Hence, Koslow (2000) drew a distinction between scepticism based on people's doubts about the accuracy of advertising claims and scepticism based on people's

suspicions about the motives of advertisers. Koslow (2000) argued that scepticism towards advertising is a defensive response to advertising. That is, adults are sceptical of advertising claims not merely because particular advertising claims may be biased or inaccurate but because adults want to be cautious and guard against possible exploitation by advertisers, and they recognize the conflict of interests between businesses and consumers (Boush et al., 2009; Friestad & Wright, 1994; Pollay & Mittal, 1993).

Recognizing that businesses have the intention to persuade people to buy may not in itself lead to scepticism towards advertisements. Rather, consumers may be sceptical because they believe that businesses' intention to persuade people to buy is motivated by the self-serving interests of the business. When discussing their scepticism towards advertisements, adults often refer to the motive of business to maximise financial gain, even when this gain is not in consumers' interests (Calfee & Ringold, 1994; Heath & Heath, 2008; Helm, 2004; Pollay & Mittal, 1993).

The notion that adults' scepticism may be based on their awareness of the potential conflict of interests between businesses and consumers is consistent with research showing that although adults appreciate that advertisements can be a useful source of information, they nevertheless distrust advertising (Calfee & Ringold, 1994; Heath & Heath, 2008; Pollay & Mittal, 1993). In other words, rather than believing that businesses' aim is to serve consumers' interests, adults are likely to be suspicious about businesses' motives and consequently evaluate advertisements unfavourably.

Children's scepticism towards advertising

There is much evidence that children can be sceptical about advertising (Gaines & Esserman, 1981; Gunter et al., 2005; Martensen and Hansen, 2001; Preston, 2000; Riecken & Yavas, 1990; and see Chapter 6). Ward, Reale and Levinson (1972) interviewed 5- to 12-year-olds about advertising. Half the children thought that advertisements were not always truthful, and more than half the children older than 9 years of age also said that advertisers might not always be truthful because they wanted to make money. Robertson and Rossiter (1974) asked 6- to 10-year-olds if they believed what advertisements told them. The younger children were more likely to believe all advertisements, but one-third of 6-year-olds, two-thirds of 8-year-olds and almost all the 10-year-olds expressed a distrust of some or all advertisements. Rossiter (1977) also found that nearly all of a group of 9- to 12-year-olds thought that advertisements

did not always tell the truth, that advertisements were biased and that the advertised products might not be the best ones to buy. Such studies have demonstrated that children are sceptical of advertisements and may be more sceptical as they get older, but none of these studies investigated the development of the reasons underlying the children's scepticism.

Koslow's (2000) distinction, discussed above, between accuracy-based scepticism (based on the claims made by an advertisement) and motive-based scepticism (based on the advertisers' intentions) provides a useful framework for considering children's evaluation of the credibility of advertisements. There may be a distinction between children's scepticism based on the literal truth (or otherwise) of an advertisement and children's scepticism based on an awareness of the conflict of interests between businesses and consumers.

Accuracy-based scepticism and motive-based scepticism towards advertisements are not mutually exclusive, but it is likely that motive-based scepticism is a more sophisticated understanding of advertising than is accuracy-based scepticism, for two reasons. First, as discussed above, adults hold motive-based scepticism towards advertisements; thus, motive-based scepticism may be a benchmark for an adult-like understanding of advertising (Koslow, 2000).

Second, motive-based scepticism is applicable to all advertisements, but accuracy-based scepticism may only apply to specific advertisements. The literal truth of advertisements about products with which children are familiar may be easier to assess than advertisements about unfamiliar products. Thus, children who hold accuracy-based scepticism towards advertisements may be sceptical only about advertisements for products that they have experienced.

Young (1990) suggested that accuracy-based scepticism is an earlier achievement than motive-based scepticism. Younger children may be sceptical towards advertisements because they recognize their content is sometimes unrealistic. Young's suggestion is consistent with research showing that by 5 years of age children correctly evaluate the reality status of television programmes, recognizing that story characters are actors dressed up or that the actions and events in a programme may violate physical reality (Gunter et al., 2005; Chandler, 1997). If young children can judge the literal truth of television programmes, they may evaluate the credibility of advertisements on the basis of the literal truth as well. Certainly by the age of 8 or 9 years, children are critical of advertisements that they perceive to be unrealistic (Gunter, McAleer & Clifford, 1992) or that use exaggeration (Chan & McNeal, 2002). This aspect

of accuracy-based scepticism relates to the content of the advertisement itself.

A second aspect of accuracy-based scepticism is when children compare the claims made about a specific product in an advertisement with their own experience of that product. Collins (1990) found that 9- to 10-year-olds gave several reasons for not believing advertisements. These included reasons related to the content of advertisements and also examples children gave of particular products that did not live up to their expectations. Ward, Wackman and Wartella (1977) found that when 5-, 8- and 12-year-olds expressed scepticism about advertising, it was most often related to particular products. Ward et al. found that one reason children gave for not believing an advertisement was their personal experience of the product being advertised; one-third of the 5-year-olds and most of the 8- and 12-year-olds were sceptical because they had had a negative experience of a specific product. Oates, Blades, Gunter and Don (2003) also found that 8- and 10-year-olds' scepticism towards advertising was the result of experiencing products that did not live up to the advertisers' claims.

In the studies cited above, some of the children explained their scepticism in more general terms (Collins, 1990), but such explanations were often from only a small number of children or were mainly given by the older children (Oates et al., 2003). For example, Ward et al. (1977) found that only about a tenth of the younger age groups in their study, and less than a third of the 12-year-olds, expressed a distrust of advertisements in general.

In summary, previous researchers have shown that children, including children as young as 5 years, can express some scepticism about advertisements (Gaines & Esserman, 1981; Ward et al., 1977). Children may refer to the biased nature of advertisements, their own experience with advertised products and the motives of advertisers when explaining why they do not always believe in advertisements (Collins, 1990; Gaines & Esserman, 1981; Mangleburg & Bristol, 1998; Oates et al., 2003; Preston, 2000; Ward et al., 1972; Ward et al., 1977). However, the previous research has not always distinguished between different aspects of scepticism, and little is known about when children evaluate the credibility of advertisements based on the motives of advertisers rather than on the literal truth of an advertisement. Therefore, we carried out a study to investigate children's attitudes towards advertising, focusing on their reasons for being sceptical.

There were 85 children in the study, in approximately equal-sized groups aged 6-, 8- and 10 years, from primary schools in the UK. The

children were asked three sets of questions to measure their understanding of advertisements, their belief in advertising claims and their trust in advertising.

Understanding advertisements. Four questions were asked about the persuasive intent of advertising: 'What are adverts for?', 'Why do adverts appear in the middle of programmes?', 'Why are there adverts on TV?' and 'What do adverts want you to do?' Children were scored as understanding persuasive intent if they said, in any of their responses, that advertisements were trying to get people to buy the products in the advertisement. Nearly half the 6-year-olds, over three-quarters of the 8-year-olds and all the 10-year-olds recognised the persuasive intent of advertisements.

Believing advertisements. Three questions were asked to assess children's beliefs in the claims made by advertisements: 'Do you think adverts on TV always tell the truth? Why (not)?', 'Do you believe what people say or do in adverts? Why (not)?' and 'Are things in adverts always the best things to buy? Why (not)?' If, in answering any of these questions, children said they did not believe the claims in advertisements and referred to the intentions of businesses (e.g., 'adverts make things look good so people will buy'), their responses were categorised as motive-based. If children said they did not believe advertisements and gave answers related to a specific product ('adverts says it won't break but it fell to pieces') or made references to lack of reality ('cars don't dance') or to false claims but with no mention of motive ('chocolate is not healthy'), their responses were categorised as accuracy-based. Children were scored for their most sophisticated response to any of the three questions. For example, even if they gave naïve answers to two of the questions but said they did not believe advertisements and referred to businesses' intentions when answering the third question, they were considered to have given a motive-based response.

One-third of the 6-year-olds said they believed advertisements, nearly a third said they did not believe advertisements but did not give any reason, and nearly a third said they did not believe advertisements and gave accuracy-based reasons. Only one-tenth of 6-year-olds gave motive-related reasons for not believing advertisements.

One-fifth of 8-year-olds believed advertisements. One-third of the 8-year-olds gave product-based reasons for not believing advertisements, and one-fifth gave motive-based reasons. For the 10-year-olds, a few said they believed advertisements, about a third gave product-based reasons for not believing advertisements, and nearly half gave motive-based reasons. The results from the three age groups showed that overall

there was an age-related increase in the proportion of children who did not believe advertisements, but even at the age of 10 years, only half the children were critical of advertisements because they suspected advertisers' motives.

Trusting advertisements. The children were also asked three questions about whether they trusted advertisements: 'Do people that make adverts care about what is good for you? Why (not)?', 'Do you think adverts on TV only show you things that you need? Why (not)?' and 'Do adverts tell you both good and bad things about what they show? Why (not)?' Children were scored for the most sophisticated response they gave to any of the three questions about trust. If children said they did not trust advertisements and referred to the aims of businesses ('they only want money'), they were considered to have given a motive-based response. Children were scored as incorrect if they said they trusted advertisements or that businesses used advertisements to serve consumers' interests ('adverts tell good things only to make people happy' or 'they are kind to put adverts on').

More than a quarter of the 6-year-olds trusted advertisements, and more than a third said they did not, but without a reason. The rest of the 6-year-olds did give reasons for not trusting advertisements, but these were nearly always related to particular products. Less than a tenth of the 6-year-olds gave a motive-based response.

About a third of the 8-year-olds trusted advertisements. About a third did not trust advertisements and gave product-based reasons, and nearly a third did not trust advertisements and gave motive-based reasons. A few of the 10-year-olds trusted advertisements, but most did not, and three-quarters of the 10-year-olds were sceptical about advertisements because they did not trust the motives of advertisers. In other words, as the children got older, they were less likely to trust advertisements and more likely to give motive-based reasons for not trusting them.

Comparing the sets of questions. We analysed the children's ability to answer the three sets of questions correctly (about persuasive intent, belief in advertising and trust in advertising). There was no association between children's performance on the questions about belief in advertising and those about trust in advertisements. In other words, these two sets of questions were tapping different aspects of children's understanding.

For purposes of the following comparisons, children were considered correct on the questions about advertising if they understood persuasive intent and correct on the questions about belief or trust if they gave a motive-based response. In other words, the children were scored as

correct if they gave the type of answers that would be expected from adult consumers.

For 6-year-olds and 8-year-olds who were correct *only* on the questions about persuasive intent or *only* on the questions about belief, nine 6-year-olds and twenty-one 8-year-olds correctly answered the persuasive intent questions but not the belief in advertising questions. None of the children in either age group showed the reverse pattern. In other words, many 6- and 8-year-olds who recognised the persuasive intent did not express motive-based scepticism in their belief about advertisements. A similar analysis was not possible for the 10-year-olds because all the 10-year-olds passed the persuasive intent questions.

For the 6-year-olds and 8-year-olds who succeeded on *only* the persuasive intent questions or *only* the questions about trusting advertisements, ten 6-year-olds and fifteen 8-year-olds correctly answered about persuasive intent but not about trust, while no children showed the reverse pattern. Thus, many 6- and 8-year-olds who recognised persuasive intent did not express motive-based scepticism in relation to trusting advertisements. The 10-year-olds all succeeded on the persuasive intent set of questions, and therefore a similar comparison could not be carried out for this age group.

Conclusions

In the study described in this chapter, we examined when 6-, 8- and 10-year-olds became sceptical about advertisements and, more specifically, why children were sceptical. In all the age groups, at least some of the children said they believed and trusted advertisements, but the proportion of those who did so declined as the children got older (nonetheless, we noted that some of the oldest children expressed a belief or trust in advertisements, which indicated that even at 10 years of age, some children are willing to accept advertisements uncritically). Older children did express more scepticism about advertisements than younger children, and this corresponded to previous research (Oates et al., 2003; Robertson & Rossiter, 1974; Ward et al., 1972).

Previous researchers had noted several reasons children gave for why they were sceptical about advertisements but did not discuss how those reasons might change as children developed. Therefore, following Koslow (2000) we divided children's reasons for mistrusting advertisements into two categories. Accuracy-based scepticism referred to children's mistrust of the content or claims of an advertisement, and motive-based scepticism referred to a general mistrust of all advertisements.

Although most of the 6-year-olds expressed scepticism about advertisements, the scepticism was nearly always because of some feature of the advertisement itself or because they had personal disappointment of a product that had previously looked attractive in an advertisement (i.e., accuracy-based scepticism). Very few 6-year-olds expressed motive-based scepticism. Eight-year-olds sometimes expressed motive-based scepticism, and more than half the 10-year-olds did so; therefore, an increasing number of children were adopting a motive-based critique of advertising between 8 and 10 years of age. Nonetheless, despite the increased numbers of children in the older age groups who said they mistrusted advertisements, much of their mistrust was accuracy-based scepticism and was based on reference to specific advertisements or particular products.

An important finding from the study is that many children who understood persuasive intent did not employ motive-based scepticism when reasoning about advertisements. Understanding persuasive intent is usually achieved by about 8 years of age, and indeed most of the 8-year-olds in this study appreciated the persuasive nature of advertisements, as did all the 10-year-olds. But despite having an awareness of persuasive intent, many of the children applied only accuracy-based scepticism when answering the questions about belief and trust in advertisements. This pattern suggests that many children may have a well-established understanding of persuasive intent some time before they have an adult-like insight into the reasons and purposes of advertisements. In other words, children's knowledge of persuasive intent may not guarantee that they have particularly profound insight into the motives of advertisers. Children may have realised that the primary purpose of advertising is to persuade but still remain quite trusting about the nature of advertising. They may believe that advertisers only use persuasion to encourage customers to buy what the customers wanted to buy anyway. If so, children may be vulnerable to the claims and techniques of advertising for some time after they recognise persuasive intent. Some reviewers (e.g., Kunkel et al., 2004) have used the age of understanding persuasive intent as a basis for suggested regulation, recommending stricter regulation of advertising aimed at children younger than 8 years. However, as we have shown, children still believe and trust advertisements for some years after that age, and so any regulation to protect children should aim to protect children several years older than 8 years of age. For the same reason, interventions and media literacy programmes that are designed to help young children understand more about advertising need to take into consideration the evidence that some children may remain naïve about advertising and lack motive-based scepticism until after 10 years of age.

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4

Commercial Food Promotion to Children

Emma J. Boyland, Joanne A. Harrold, Tim C. Kirkham & Jason C. G. Halford

Introduction

Levels of child and adolescent obesity have risen at dramatic rates over the past few decades, and both overweight and obesity are associated with numerous adverse health and psychosocial consequences in childhood and later life. An oft-cited reason for this situation is engagement in sedentary activities, such as television viewing. One mechanism linking television viewing and obesity may be the impact of television food advertising on food preferences, choices and consumption. Increasing research evidence exists to show that exposure to television food advertising alters brand preferences and food preferences, increases food intake, and results in a greater number of requests for the advertised products. Regulation of advertising to restrict children's exposure to adverts for high-fat, high-sugar and/or high-salt foods on television is a useful step, but it is not without its difficulties.

Why is food advertising and brand promotion to children an issue?

The prevalence of overweight and obesity in children and adolescents has risen rapidly over the last 40 years and is now considered to qualify as an epidemic. An estimated 18 per cent (approximately 14 million children) in the European Union are overweight, with 400,000 or more new cases each year (Lobstein, Baur & Uauy, 2004). In the UK, prevalence has risen to the extent that obesity is now the most common disorder of childhood and adolescence (Reilly & Wilson, 2006). The Health Survey for England (National Health Service, 2007), states

that in 2007 14 per cent of 2- to 15-year-old boys were overweight and 17 per cent obese. For girls in the same age band, 14 per cent were overweight and 16 per cent obese. There is also a well-established link between socioeconomic status (SES) and childhood obesity, both in the UK (National Health Service, 2007) and internationally (McLaren, 2007). For example, growing up in a poor SES household is positively associated with an increased risk of obesity in adulthood (Olson, Bove & Miller, 2007).

The World Health Organisation (WHO) has described obesity as 'one of today's most blatantly visible – yet most neglected – public health problems' (World Health Organisation, 2005). For children, overweight and obesity are associated with many short- and long-term health-related and psychosocial consequences. Obesity from childhood persists into adulthood as at least 60 per cent of obese children and 70–80 per cent of obese adolescents are likely to become obese adults, and such adults have an elevated likelihood of suffering cardiovascular risk factors, diabetes, some forms of cancer, depression, arthritis, adverse socioeconomic outcomes and premature mortality (Reilly & Wilson, 2006). Further, obesity has been estimated to cost the UK National Health Service at least £1 billion annually (National Health Service, 2007).

Food preferences and choice – links to obesity

Evidence from epidemiological studies links food preferences, dietary intake and adiposity (Benton, 2004; Birch, 1998). Numerous researchers have investigated the assumption that overweight and obese individuals must differ from normal-weight individuals in terms of their food preferences, especially their liking of sweetness and fat (Benton, 2004). Studies in obese women have shown that increasing body weight is positively associated with increased preference for fat. The most obese subjects typically reported high-fat foods as their favourite on food-preference measures (Drewnowski, 1997).

Among children, those from obese/overweight families (who are at higher risk of becoming obese themselves) demonstrate greater preference for high-fat foods and lower preference for low-energy-density foods (e.g., vegetables) than children from normal weight families (Wardle, Sanderson, Gibson & Rapoport, 2001). These and similar studies have shown that obese children and adults display a tendency to prefer high-fat, energy-dense foods (Drewnowski, 1997; Fisher & Birch, 1995; Mela & Sacchetti, 1991) and reduced preference for vegetables (Müller, Koertzinger, Mast, Langnäse & Grund, 1999). These findings are notable as food preferences and choice determines an individual's diet. The link

between dietary composition and obesity, particularly the macronutrient breakdown of the diet, has been the subject of much debate.

Diets high in fat have been implicated in the development and maintenance of obesity (Blundell & Macdiarmid, 1997; Fisher & Birch, 1995). Hill and Prentice (1995) found that such diets are more likely to result in weight gain than are high-carbohydrate diets. Several studies and reviews also have demonstrated a significant and positive relationship between fat intake and measurements of body fat (Bray, Paeratakul & Popkin, 2004; Gillis, Kennedy, Gillis & Bar-Or, 2002; Hill, Melanson & Wyatt, 2000). As fat is the macronutrient with the highest energy density, it is reasonable to conclude that a high-fat diet could easily equate to a positive energy balance (Blundell & Gillett, 2001). However, foods with a high fat content are both extremely palatable and only exert a weak effect on satiation, which can lead to overconsumption (Blundell & Macdiarmid, 1997). Therefore, a preference for high-fat foods in particular is an important dietary risk factor for obesity (Blundell & Finlayson, 2004).

The role of carbohydrates or protein in weight gain is less well understood. Several studies show that carbohydrate intake is negatively correlated with obesity (Magarey, Daniels, Boulton & Cockington, 2001; Skinner, Bounds, Carruth, Morris & Ziegler, 2004), which is consistent with carbohydrate being significantly lower in energy density than fat (~4 kcal/g versus ~9 kcal/g). However, carbohydrates can take many forms. For example, highly processed foods often have high levels of refined carbohydrates, such as fructose, which have been associated with increased body weight (Bray, 2010), and if excess carbohydrate is consumed, it can get converted to body fat (Prentice & Jebb, 1995).

Protein intake also has been implicated in the development of obesity; for example, a consistently high protein intake at 12 months and between 18 and 24 months was found to be independently related to a higher body mass index (BMI) and greater percentage of body fat at age 7 (Günther, Buyken & Kroke, 2007). Similarly, Scaglioni et al. (2000) found that protein intake at 1 year of age was positively associated with overweight at 5 years. Furthermore, overweight adolescents were shown to derive a greater proportion of their energy from protein and fats and less from carbohydrates than the normal-weight participants (Ortega et al., 1995).

Children's diets

In many European countries, fruit and vegetable intake is considerably lower (Yngve et al., 2005) than the 400g/day recommended by the WHO

(2003). Only 17.3 per cent of boys and 17.9 per cent of girls studied had a combined fruit and vegetable intake above this WHO threshold (Yngve et al., 2005).

The Health Survey for England (National Health Service, 2007) surveyed children's diets, specifically their consumption of fruits and vegetables, using a 24-hour recall method where parents responded on behalf of children 12 years or under. Of children aged 5–15 years, 21 per cent of both boys and girls reported eating the government's recommended guideline of five or more portions of fruits and vegetables per day (National Health Service, 2007). This has increased relative to 2001 and 2004, when reported levels were 10–13 per cent (National Health Service, 2009). This trend is encouraging despite the fact that four out of five children fail to consume recommended levels of fruits and vegetables. The research also found that of the school meals studied, intake of total fat and saturated fat derived from those meals was greater than the recommended levels set out by the National Nutrition Standards in 2001 (National Health Service, 2009).

In the United States, a report highlighting trends in young people's nutrient intakes and eating patterns between the 1970s and 2004 indicated that carbohydrate intake had increased during this time and total fat and saturated fats consumed remained at levels that exceeded dietary recommendations (McGinnis, Gootman & Kraak, 2006). The survey also suggested that consumption of fruits, vegetables and whole grains was well below the recommended daily intake (McGinnis et al., 2006).

Overall, children and adolescents typically consume diets that are not in line with recommendations, characterised by too little fruit and vegetable intake, too much saturated fat, and energy consumption beyond requirements (Birch & Fisher, 1998; Brug, Tak, Te Velde, Bere & De Bourdeaudhuij, 2008; Drewnowski, 1997).

Effects of television viewing on diet and obesity

Television has been linked to detrimental effects on health, particularly for children, for more than 20 years. These effects include reduced academic performance, violent behaviour, and notably poor nutrition/diet and increased risk of obesity (American Academy of Pediatrics, 2001). As television is a very popular source of entertainment, particularly amongst children and adolescents, this is a concern. For example, children spend more time watching television than taking part in any other form of activity except sleeping (Byrd-Bredbenner, 2002). UK children between the ages of 4 and 15 years watch an average of 17.2 hours of

television per week (Ofcom, 2004). Furthermore, 71 per cent of 8- to 11-year-olds and 75 per cent of 12- to 15-year-olds are thought to have a TV set in their bedroom (Ofcom, 2006), which has been associated with an even greater risk of overweight (Dennison, Erb & Jenkins, 2002).

In the first study to link high television viewing with a greater risk of overweight and obesity, a sample of over 10,000 children was studied, and significant associations were found between time spent watching television and the prevalence of obesity (Dietz & Gortmaker, 1985). Since that time, further evidence has been gathered to support this relationship both in childhood and also extending into adulthood. Importantly, findings show that television viewing in childhood can (independently of gender, socioeconomic status, birth weight and parental BMI) predict increased adult body mass index, which is suggestive of a causal link (Viner & Cole, 2005).

A cross-sectional study found that boys and girls who watched four or more hours of television per day had greater body fat and a greater BMI than those who watched less than two hours each day (Andersen, Crespo, Bartlett, Cheskin & Pratt, 1998). Additionally, Dennison et al. (2002) found that the amount of time spent viewing television related to the prevalence of overweight, and that the presence of a television in a child's bedroom increased his or her weekly viewing by 4.8 hours and further strengthened the risk of overweight. In fact, more than 60 per cent of overweight incidence amongst children and adolescents in the US could be attributed to television viewing (Gortmaker et al., 1996). Television viewing hours have also been demonstrated to be positively associated with both energy intake and body mass index in women aged 20–45 years (Jeffery & French, 1998) and adult males (Tucker & Friedman, 1989). It is important to note that the association between television viewing and obesity remains significant even when possible confounding variables such as socioeconomic status, familial tendency to overweight (Hancox & Poulton, 2006) and levels of physical activity (Eisenmann, Bartee, Smith, Welk & Fu, 2008) are accounted for.

Energy intake has repeatedly been shown to increase during television viewing. Crespo et al. (2001) reported that girls who watched five or more hours of television daily consumed an extra 732 kJ (175 kcal) per day on average compared with those watching one hour or less daily. Wiecha et al. (2006) found an even bigger increase in intake, with each additional hour of television viewing associated with an additional 167 kcal per day.

Typically, reported increases in caloric intake correlated with television viewing largely reflect increases in the consumption of foods that are both energy dense and low in nutrients (Davison, Marshall & Birch, 2006). Thus, television viewing is associated with poor overall diet quality. Further, the amount of time spent viewing television is predictive of unhealthy conceptions about food and poor eating habits generally (Signorielli & Lears, 1992). Specifically, Boynton-Jarrett et al. (2003) found that television viewing was inversely associated with intake of fruits and vegetables among adolescents, such that fruit and vegetable intake decreased by 0.16 servings per day with each additional hour increase in television viewing.

Food advertising has been proposed as a candidate for the association between television viewing and adiposity. For example, Lobstein and Dibb (2005) found a significant and positive correlation between the prevalence of overweight amongst schoolchildren and the number of adverts for sweet or fatty foods per 20 hours of children's television broadcast. Critically, the prevalence of overweight was negatively correlated with the number of healthy foods advertised over the same period of time (Lobstein & Dibb, 2005). Furthermore, there is now a considerable body of evidence from experimental studies suggesting that food advertising on television does impact food preferences, choices and consumption.

Nature and extent of foods promoted to children on television

Across the globe, television is still the primary medium used for advertising food and drink products (Henderson & Kelly, 2005; Story & French, 2004), accounting for approximately 75 per cent of all advertising money spent in the UK in recent years (Hastings et al., 2003). In the UK in 2003, Nestle alone spent £43 million promoting breakfast cereals and chocolate, Kellogg's spent £30 million promoting their cereals, and Coca-Cola funded their soft-drink advertising with £26 million (Escalante de Cruz, Phillips, Visch & Saunders, 2004). In the United States, $1 billion is spent annually on youth-oriented media advertising, particularly on television (Story & French, 2004). Some researchers have estimated that for every US$1 the WHO spends on promoting healthy nutrition, US$500 is spent by the food industry promoting processed foods (Escalante de Cruz et al., 2004).

Although both the nature and extent of such advertising varies between countries, studies show that the majority of advertisements (ads) broadcast are for unhealthy products. Batada, Seitz, Wootan and Story (2008) found that in a sample of US television, 49 per cent of ads

were for food, of which 91 per cent were for foods or beverages containing high levels of fat, sodium or added sugars or that were low in nutrients. Chapman, Kelly, King and Flood (2006) found that during a sample of Australian television, 81 per cent of the food ads identified were for unhealthy products including fast food, takeaways, chocolate and confectionery items.

In the Batada and Wootan (2007) examination of the nutritional quality of the foods advertised on the popular US children's channel Nickelodeon, 88 per cent of food ads were for foods deemed to be of low nutritional quality. Byrd-Bredbenner (2002) found that in and around the most popular Saturday morning programmes on children's channels, food was the most advertised category. Of the food advertisements broadcast, the vast majority were for pre-sweetened breakfast cereals and foods that were high in fat and sugar (Byrd-Bredbenner, 2002). Similarly, Harrison and Marske (2005) identified that 83 per cent of food advertisements aimed at child and general audiences were for convenience/fast foods and confectionery items.

In a longitudinal approach, Byrd-Bredbenner and Grasso (2000) observed that the number of advertisements broadcast (in all categories, not just food) significantly increased between 1971 and 1998 but that the number of food ads broadcast per hour did not change significantly over that time period. On commercial Australian television, there was a reduction in overall high fat/sugar and/or salt (HFSS) food advertising between 2002 and 2006; however, in 2006 the rate of HFSS food ads during children's viewing times was greater than that during adult viewing times, particularly in and around the most popular programmes for children (Kelly, Smith, King, Flood & Bauman, 2007).

Dibb (1996) carried out a nutritional analysis of the foods advertised to children on UK television and found that overall, 95 per cent of the advertisements were for HFSS foods. This was a fairly consistent pattern found across the countries studied (Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Netherlands, Norway, Sweden, the UK and the US) (Dibb, 1996). In 1998, Lewis and Hill reported that during their 91 hours of recorded sample of UK television, 828 advertisements were broadcast, of which half were for food products. Similar results were found for the United States (Reece, Rifon & Rodriguez, 1999).

These findings collectively show that the foods advertised reflect a dietary pattern that would be associated with increased risk of obesity and are inconsistent with recommended nutritional guidelines (WHO, 2003).

Effects of TV food adverts and brand recognition

Effects on food preferences and choice

Borzekowski and Robinson (2001) carried out a randomized, controlled trial in which they showed preschool children a videotape of a cartoon either with or without embedded commercials and then asked them to identify their food preferences from pairs of similar products, one of which had been shown in the commercials. Children who had seen the videotape with the embedded commercials were more likely to select the advertised product than children who had not seen the commercials. Robinson, Borzekowski, Matheson and Kraemer (2007) reported that children preferred the taste of food and drink items displaying the McDonald's branded packaging to identical products in matched, but unbranded, packaging. Halford et al. (2008) showed that after exposure to control (non-food) advertisements, overweight and obese children showed a greater preference for branded items than did normal-weight children, but after food advertisements were viewed, these weight-status differences did not exist. These findings may suggest that exposure to television food advertisements produces in normal-weight children an obesogenic food preference response that would typically be found in overweight and obese children (Halford et al., 2008).

Effects on actual intake

In one of the earliest studies of its type, Gorn and Goldberg (1982) demonstrated that children who watched candy commercials on a daily basis were more likely to select candy over fruit as an afternoon snack. Hitchings and Moynihan (1998) interviewed 9- to 11-year-olds regarding their recall of food advertisements and obtained three-day food diaries to ascertain consumption. A significant and positive relationship emerged between the food advertisements recalled and the foods consumed, particularly for soft drinks, crisps and savoury snacks. Forty per cent of the most-requested food items were amongst the ten most frequently recalled television food advertisements.

In our research, 9- to 11-year-old children were shown eight food or eight non-food advertisements, followed by the same cartoon, in a within-participant, randomized study (Halford, Gillespie, Brown, Pontin & Dovey, 2004). After the viewings, children were given the opportunity to consume sweet and savoury, high- and low-fat snack foods. Their intake of these foods was measured. Exposure to food advertising increased food intake in all children. This study was later replicated with 5- to 7-year-old children with similar results (Halford, Boyland, Hughes,

Oliveira & Dovey, 2007a). Crucially, a further study found that not only did food advertising exposure produce a substantial and significant increase in caloric intake (of high fat and/or sweet energy-dense snacks) in all children, but that this increase in intake was greatest in the obese children (Halford et al., 2007b). Thus, overweight and obese children are more responsive to food promotion, and such promotion specifically stimulates the intake of energy-dense snacks (Halford et al., 2007b). Buijzen, Schuurman and Bomhof (2008) also demonstrated that exposure to food advertising was significantly related to children's intake of both advertised brands and generic energy-dense product categories.

However, not all food advertising has negative effects on diet. Advertisements for healthier food products also have an effect. Some authors have found that advertisements for nutritious foods promoted positive attitudes and beliefs concerning these foods (Dixon, Scully, Wakefield, White & Crawford, 2007; Beaudoin, Fernandez, Wall & Farley, 2007). Also, a three-year campaign in Western Australia promoting fruit and vegetable intake had some success, as consumption increased by half a serving of fruits and a third of a serving of vegetables per day (Chapman et al., 2007).

The role of brand preference

Branding is a crucial aspect of advertising, particularly for children and young people. A majority of child-oriented food advertisements take a branding approach (Connor, 2006). Branding has previously been defined as 'an advertising method designed to establish recognition and positive associations with a company name or product, with the goal of creating lifelong customers' (Connor, 2006). Television advertising is seen as particularly effective at building strong brands (Heath, 2009), and food is one of the most highly branded items, with over 80 per cent of US grocery items being branded (Story & French, 2004).

Ubiquitous branding of food products works well for major advertising campaigns, and food manufacturers generate advertising activity to build brand awareness and brand loyalty in the hope that this precedes purchase behaviour (Story & French, 2004). Brand recognition may emerge as early as around six months of age. Thus, whilst children are only producing simple speech sounds such as 'ma-ma', they are already beginning to form mental images of corporate logos and brand representations (de Cruz, Phillips, Visch & Saunders, 2004; Lindstrom, 2004).

By 2 years of age, children are already being directly targeted by television advertisements for cereal (McNeal & Ji, 2003). By 9–11 years, 88 per cent of children were correctly able to recognise at least 16 out of 20

brand logos (Kopelman, Roberts & Adab, 2007). The appearance of brand characters and celebrity endorsers in advertisements also has shown to increase children's enjoyment and engagement with the advertising and more positive attitudes towards the promoted product. Associating a known and liked brand character with a food can increase the likelihood of children eating an offered food and improve their willingness to taste a novel healthy food (Kotler, 2007). Studies also have shown that celebrity endorsements increase children's preferences for the product being promoted (Ross et al., 1984). Research findings have consistently shown that children's ability to recognise an association between a character and a product predicts the development of favourable attitudes towards the product (DiFranza & Tye, 1990; Fischer, Schwartz, Richards, Goldstein & Rojas, 1991). Product placement in television programming, such as the appearance of Coca-Cola in each episode of *American Idol*, is one of many contentious branding activities, but effective in ensuring that children are exposed to brands in as many situations as possible (Linn & Golin, 2006). Several other branding avenues (some of which can even operate interactively) can be used to reach child and adolescent audiences, including Internet advergaming; viral marketing; product, programme and event sponsorship; mobile phone advertising; advertising within schools; and point-of-sale marketing (Lindstrom, 2004). As a result, both the frequency and intensity of children's exposure to branding messages is unprecedented (Linn, 2004).

Because of such omnipresent branding activity, there are signs that brand loyalty may be established by 2 or 3 years of age (de Cruz, Phillips, Visch & Saunders, 2004). Additional research evidence shows that from the age of 2 years, children are able to recognise, classify and evaluate brand or product alternatives and even express these preferences in letters to Father Christmas (Macklin, 1994). An item's brand is purportedly one of six key factors that drive children's purchasing decisions, in addition to fun, taste, peer pressure, status and packaging (British Heart Foundation, 2008).

Good recall and recognition of brands is assumed to denote positive attention and memory of advertising activity, and thus implies that an advertisement or a brand is generating persuasive power (Curlo & Chamblee, 1998). Children's ability to recognise brand logos has also been linked to certain aspects of eating behaviour. Specifically, children with a greater ability to recognise food brand logos were more likely to snack on crisps and less likely to snack on biscuits and showed better ability to identify healthy and unhealthy food items (Kopelman et al., 2007).

Studies carried out in our own laboratory have shown that after food advertisement exposure, correct recall of ads is significantly associated with the subsequent number of food items selected (Halford et al., 2008). Additionally, obese children were found to correctly recognise a greater number of food ads than normal weight children, and this recognition was positively related to the subsequent level of food consumption (Halford et al., 2004). Also, recognition of food ads was related to BMI in 5- to 7-year-old children (Halford et al., 2007a), which accords with other studies linking brand recognition and weight status (see Arredondo, Castaneda, Elder, Slymen & Dozier, 2009). These data are consistent with the notion that branding exerts an early and powerful influence on children's food preferences, which in turn is associated with poorer health outcomes.

Children as consumers

Children's access to income has risen markedly in recent years, and they are considered to have a developing role as independent consumers (Schor & Ford, 2007). 'Sweets, snacks and beverages' is the largest product category for children's purchases, accounting for a third of children's overall spending (Schor & Ford, 2007). Additionally, an international study found that more than 50 per cent of parents interviewed reported that children were a major influence on their purchasing decisions and that 'child's demand' was frequently the primary reason for buying a product (de Cruz, Phillips, Visch & Saunders, 2004). Considerable research evidence shows that increased purchase requests by children occur in response to food advertising, particularly increased requests for the products appearing in the advertising (Arnaş, 2006; Buijzen & Valkenburg, 2000; Chamberlain, Wang & Robinson, 2006).

Early studies reported that the hours of commercial television children watched each week correlated significantly with purchasing-influencing attempts made to their parent while food shopping (Galst & White, 1976). Similarly, Brody, Stoneman, Lane and Sanders (1981) noted that children who watched a cartoon embedded with food commercials made more requests for the advertised foods in a subsequent artificial shopping environment than the children who had watched the cartoon with no commercials. An association has also been found between the frequency of requests for products and both the number of television viewing hours and the intensity of the advertising campaign for those products (Donkin, Tilston, Neale & Gregson, 1992). In one study, Pine and Nash (2002) reported that children who watched more

commercial television requested more items overall and more branded products than did the children who watched less. These findings are supported by other evidence that children are brand-oriented in their request behaviour (O'Cass & Clarke, 2001).

Regulating TV advertising of food to children in the UK

The television landscape has changed considerably, and children now have access to more age-targeted programming than ever before (Desrochers & Holt, 2007). Increasing research evidence supporting a link between food advertising and obesity has led to changes in the regulation of television food advertising to children in the UK.

Hastings et al.'s (2003) report was commissioned by the Food Standards Agency (FSA) to examine the extent and nature of food advertising to UK children and to assess its effects. The report concluded that 'food promotion is having an effect, particularly on children's preferences, purchase behaviour and consumption' and importantly, that 'this effect is independent of other factors and operates at both a brand and category level'. Subsequently, in December 2003, the Secretary of State for Culture, Media and Sport asked the UK's independent regulator of television services, Ofcom, to consider proposals for strengthening the rules on television advertising of food aimed at children. Ofcom conducted additional research examining how advertising influenced children's consumption of HFSS foods. The resulting report concluded that 'advertising has a modest direct effect on children's food choices and a larger but unquantifiable indirect effect on children's food preferences, consumption, and behaviour' (Livingstone & Helsper, 2004). Ofcom (2007) then acknowledged that sufficient evidence was available to suggest that 'proportional and targeted action in terms of rules for broadcast advertising' was needed to address this issue. Ofcom carried out public consultations during 2005 and 2006 and produced a report detailing the new legislation on 22 February 2007.

The regulations cover two categories: scheduling restrictions and content rules. The scheduling restrictions apply to food and drink products that are assessed as being high in fat/sugar and/or salt by the FSA's nutrient profiling scheme. Ofcom asserted that advertisements for HFSS products must not be shown in or around programmes specifically made for children under 16 years of age (including preschool children), and it was further stated that for clarity this meant the removal of all HFSS advertising from dedicated children's channels (Ofcom, 2007). For all channels other than dedicated children's channels, this legislation came into full

effect 1 January 2008, and from that date, HFSS advertisements were not permitted in or around programmes likely to be of particular appeal to children aged 4–15 years (Ofcom, 2007). For dedicated children's channels, the restrictions were phased in to minimise financial disruption. Full implementation (total removal of all HFSS advertising) was enforced from 1 January 2009 (Ofcom, 2007).

The revised content rules applied to all food and drink advertising to children regardless of its scheduling. The rules stated that advertisements must not encourage poor nutritional habits or an unhealthy lifestyle, encourage children to make purchase requests, target promotional offers at preschool or school-age children, encourage children to consume a product purely to take advantage of a promotional offer, condone or encourage excessive consumption, disparage good dietary practice, or condone or encourage damaging oral health practices, and that advertisements must be accurate with regards to nutrition/health claims (Ofcom, 2007). The content rules also asserted that licensed characters (e.g., movie characters such as Shrek™) and celebrities popular with children could not be used in HFSS advertisements targeted directly at preschool or primary schoolchildren. This prohibition does not apply to brand-equity characters – those created by the advertiser which have no separate identity outside of the particular brand they promote – for example, Coco the Monkey advertising Kellogg's Cocopops® (Ofcom, 2007).

Criticism of the UK regulation

Children no longer confine their viewing to a few children's time slots; they watch prime-time and other non-age-specific programming (Schor & Ford, 2007). Ofcom themselves acknowledge that children spend 71 per cent of their viewing time (12 hours per week) outside of dedicated children's airtime (Ofcom, 2004); therefore, current regulations (only covering programming specifically aimed at children younger than 16 years of age) did not impact the majority of their viewing. The consumer group Which? (2008) also argued that the system used to calculate which programmes were 'of particular appeal' to children under 16 was flawed. This calculation relies on the proportion of children in the audience rather than the actual number of children viewing the programme. Thus, if a large number of children are watching a particular programme, the restrictions will not apply if there is also a large adult audience. Of the top 30 most popular programmes watched by 4- to 15-year-olds during a week in October 2006, the first programme to be covered by the restrictions was the 27th most popular show, with fewer than 200,000 child viewers (Which?, 2006).

Ofcom has also been criticised for failing to legislate against brand advertising because of the practical difficulties of doing so. This means that even brands well known for their HFSS foods will be able to advertise during children's programming provided that food products are not explicitly shown or that meal-deal options are manipulated for the product to pass the nutrient profiling criteria. This could be a significant loophole. Concerns have also been raised over the distinction between types of promotional characters and the lack of restrictions regarding the use of brand equity characters, as these characters are also known to appeal to children and are likely to affect their food preferences and choices (Which?, 2006).

Therefore, despite significant changes in the regulation of food advertising, there are still concerns over the extent and nature of food advertising to children on television and what effects this might have on children's diet and overall health.

With the prevalence of obesity rising in all children at all ages, understanding the causal influences underpinning increasing adiposity is imperative. Obesity in both adults and children is clearly linked to food preferences, and as these preferences are formed in childhood, it is critical to quantify the environmental factors that promote excess energy intake, particularly of foods high in fat, sugar and salt. TV viewing is linked with obesity and poor dietary choice and may mediate some of the clear associations between socioeconomic status and/or ethnicity and obesity. TV advertising is the most pervasive form of media entering the home and influencing the young consumer before any other forms of marketing, establishing the brand in the young child's mind. Exposure to food adverts has demonstrable effects on children's food preferences, food choices and caloric intake. These effects appear in part mediated by brand recognition and child weight status. It is possible that certain children are either more exposed to or more influenced by TV food advertising and these are important mediators of the effects of food promotion on health. However, the power of advertising demonstrates that as food preferences develop, they are open to considerable influence. Although data are limited, adequately supported interventions teaching children to understand professional marketing techniques may provide a viable approach to obesity prevention.

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5
Alcohol Advertising and Young People

Barrie Gunter

There is growing concern about problems of alcohol misuse and abuse among young people. In the new millennium, increasingly widespread media attention has addressed this issue. While some evidence points to a reduction in prevalence of alcohol consumption by young people in general, occurrences of excessive consumption, or 'binge' drinking, are on the increase. Reports for the UK in 2008, for example, catalogued significant increases in hospital admissions due to drinking (Ford, Hawkes & Elliott, 2008). In tackling the causes of problematic alcohol consumption, critics have often turned their attention to the role played by alcohol advertising and other forms of promotion. Such advertising is often blamed for driving irresponsible use of alcohol by encouraging people to start drinking when still very young and by making alcohol consumption seem an attractive and fashionable pursuit.

Historically, fluctuations in levels of alcohol consumption have been observed to occur from one generation to another. In the United Kingdom, for example, alcohol consumption was high in the early years of the twentieth century, fell away during the period including and between the two world wars, and then increased steadily from the 1950s into the twenty-first century (BMA, 2008). Alcohol consumption also varies between different demographic and cultural groups. Again in the UK, men have been found to be more likely than women to report having drunk alcohol during the previous week and to have consumed alcohol on more days of the week (Office for National Statistics, 2008; NHS National Services Scotland, 2007).

It has been observed that although most people in the UK consume alcohol in moderation, there are those who regularly drink to excess (BMA, 2008). Estimates of the prevalence of problem drinking have

varied. One report claimed that around one in seven people in Britain (14 per cent) exceeded recommended daily guidelines and a similar proportion engaged in binge drinking – eight or more units per day for men and six or more units per day for women. Half that proportion (7 per cent) were classed as 'alcohol dependent' (Prime Minister's Strategy Unit, 2003). Another report estimated that as many as one in four people aged 16 to 64 in England (26 per cent) displayed an alcohol use disorder. The extent of this problem behaviour was more prevalent among males (38 per cent) than among females (16 per cent) (Department of Health, 2005). Somewhat lower estimates were reported for the prevalence of so-called binge drinking (23 per cent of men and 9 per cent of women) in the UK (Parliamentary Office of Science and Technology, 2005).

Alcohol consumption among young people

There is mounting evidence from a range of sources that excessive alcohol consumption has increased among young people in their teens and early 20s (BMA, 2008; Robinson & Lader, 2009; Smith & Foxcroft, 2009a). Further evidence has emerged that alcohol consumption among younger teens aged 11 to 15 years has also reached worrying proportions (Hayward & Hobbs, 2007; Lader, 2009; Maxwell, Kinver & Phelps, 2007). Teenagers aged 11 to 13 in England were reported to be drinking twice as much in 2006 as they did in 1990 (Smith & Foxcroft, 2009a). Concern about youth drinking is also fuelled by evidence that they experience disproportionate harmful side effects associated with alcohol consumption compared with older age groups (Wyllie, Millard & Zhang, 1996).

In considering steps to be taken to tackle problems of alcohol abuse and underage alcohol consumption, many lobbyists and governments have turned their attention to the impact of alcohol advertising and marketing. Reports from health lobby groups have been especially critical about the significant role allegedly played by the marketing of alcoholic drinks, a role that is empirically supported (BMA, 2008; Hastings & Angus, 2009). We are reminded that the industry spends enormous amounts of money on marketing communications and designs complex marketing strategies that combine a range of overt and covert promotional techniques to raise the profile of their brands. In the process, alcohol advertisers are accused of triggering teenagers to take up drinking alcohol and of encouraging people to drink potentially harmful amounts (see Hastings & Angus, 2009).

Critics of alcohol marketing recognise that many countries have produced regulations and codes of practice designed to ensure responsible

promotion of alcohol. However, many of these codes are voluntary and even where legislated may not be implemented effectively (BMA, 2008; Hastings & Angus, 2009). Such criticism places advertising at the forefront in terms of social influences over alcohol consumption. Other research has questioned the prominence of advertising as a trigger to drinking among young people (see Martinic & Measham, 2008a). In an international study in which teenagers and young adults from seven countries were invited to reflect on the role alcohol played in their lives, advertising scarcely received a mention among the factors believed to underpin drinking behaviour. In addition, doubts have been raised about the behavioural construct of binge drinking, not least because definitions of what this really means vary so widely in different parts of the world (Martinic & Measham, 2008b). On this evidence, the debate about the impact of alcohol advertising on young people is far from over.

Advertising and alcohol consumption

A considerable research literature has built up over the past four decades that has examined the question of whether alcohol advertising can influence young people. Some of this research has also indicated that children and teenagers under the legal age to purchase alcohol pay attention to, remember and often enjoy alcohol advertising. Advertising, however, is one of many factors that might influence young people's interest in alcohol (Houghton & Roche, 2001; Martinic & Measham, 2008a). Alcohol consumption can be shaped by a range of social-psychological factors in the individual's environment. Parental and peer influences are especially powerful (Adlaf & Kohn, 1989; Smart, 1988). Alcohol consumption is also controlled by life stage. For example, while consumption of alcohol may be a part of their social culture for many adolescents and young adults, as they grow older and take on more responsibilities in their private lives and at work, their alcohol-consumption patterns change and often decline (Casswell, 2004).

It is not simply the advertising of standard alcoholic drinks that is a source of concern, however, but also the marketing of alcoholic products directed at young drinkers. The primary example of this phenomenon has been the popularity with teenagers of a new range of 'alcopops' and other 'designer drinks' in the 1990s and the emergence of marketing strategies used to promote these drinks to young people (BMA, 1999, 2008), which magnifies this concern. Some of these drinks have been observed to hold particularly strong appeal for young women (Measham, 2006; Measham & Brain, 2005). Although officially targeted at young

but legal-age drinkers, there has been concern that the packaging styles used with these brands hold special appeal to underage consumers (Mosher & Johnsson, 2005). Further supporting this position is evidence that these new designer drinks, characterised by sweet, fruity flavours, overcome the traditional taste barrier to early alcohol consumption and may encourage underage drinkers to start drinking earlier (McKeganey, Forsyth, Barnard & Hay, 1996; Hughes et al., 1997).

Despite widespread claims in the media that alcopops represent an especially strong temptation to young people, there is conflicting evidence that many young drinkers opt for traditional alcohol drinks that are cheaper (Brain & Parker, 1997). Instead of tempting teenagers, alcopops hold greater interest for slightly older drinkers who can afford these fashionable brands (Measham, 2006; Measham & Brain, 2005).

Advertising and the wider social and psychological context of drinking

In considering whether advertising has an impact upon young people's alcohol consumption, it is important to remember that the onset of drinking alcohol can be influenced by a range of psychological, social and environmental factors. Parental, sibling and peer-group influences can be highly significant in this context (Adlaf & Kohn, 1989; Fisher & Cook, 1995; Milgram, 2001). These social groups can provide behavioural role models and establish a positive attitudinal climate towards drinking.

Although both parental and peer-group influences can play their part in shaping young people's alcohol consumption, further evidence has indicated that drinking onset is not simply a matter of copycat behaviour. Adolescent drinkers weigh up the different (positive and negative) consequences of drinking, as well as make assessments of relevant group norms and beliefs linked to drinking. There is further evidence that peer-group norms may be influential among young people in their last year at school or college and in the first two years at university; parental norms related to drinking only predicted alcohol use among the oldest of these three groups (Kuther & Higgins-D'Alessandro, 2003).

The role of advertising

A significant amount of empirical evidence has accumulated on the way young drinkers respond to advertising. Some of this research has explored young people's attitudes towards alcohol advertising, while

other work has investigated links between exposure to alcohol advertising and consumption.

According to the World Health Organization, alcohol advertising can influence positive perceptions of drinking and pro-drinking attitudes that may, in turn, increase the probability that young people will consume alcoholic beverages (Babor et al., 2003). There are two specific aspects to the role advertising is believed to play. The first of these is that exposure to alcohol advertising over time can lead young people to perceive drinking as a normative behaviour and therefore understandably as an activity in which they would wish to partake. The second aspect of alcohol advertising is that it may reach children and early teenagers and encourage alcohol consumption well before they are legally old enough to purchase alcoholic drinks for themselves.

There is, however, mixed empirical research evidence on whether children are influenced by televised advertising of alcoholic beverages in terms of their own consumption behaviour. Early research with teenagers concluded there was little evidence of an effect (Strickland, 1982; Adlaf & Kohn, 1989). Later evidence indicated that any effect there might be was indirect, rather than direct, in nature. Exposure to televised advertising could raise brand awareness, and the latter in turn was linked to future drinking (Lipsitz, Brake, Vincent & Winters, 1993).

Other researchers have argued that the influences of alcohol advertising can be subtle, rather than open and direct. Exposure to alcohol advertising may operate at the level of priming thoughts about alcohol through association with other attributes that have significance for young people. If young people think about drinking more often, there is an increased likelihood that they will eventually consume alcoholic drinks (Krank & Kreklewetz, 2003; Krank, Wall, Lai, Wekerle & Johnson, 2003). Other reviewers have indicated that by raising young people's awareness and familiarity with alcohol, advertising contributes towards their decision to eventually take up drinking (Hastings, Anderson, Cooke & Gordon, 2005).

Children's liking of alcohol advertisements

Evidence has emerged that alcohol adverts have an appeal for children even before they have begun drinking. Children have evidenced a liking for televised alcohol adverts in particular (see Aitken, Eadie, Leathar, McNeill & Scott, 1988b; Aitken, Leathar & Scott, 1988a; Waiters, Treno & Grube, 2001; Wyllie, Zhang & Caswell, 1998). Indeed, alcohol

advertisements feature among children's favourite commercials (Nash, Pine & Lutz, 2000). According to some research findings, a positive attitude towards alcohol and advertising of alcohol are important precursors of consumption among young people. In multivariate statistical tests that took into account other potential causal factors, such as parent and peer variables, liking of alcohol advertisements has been positively correlated with drinking alcohol among young adults (Wyllie et al., 1998). In addition, positive beliefs about alcohol have been linked to greater awareness of alcohol adverts, which, in turn, has been associated with future intention to drink (Grube & Wallack, 1994).

A group of studies by Aitken and his colleagues explored children's and teenagers' orientations towards alcohol advertising in terms of liking of advertisements and brand awareness, and how these measures differed between youngsters who drank and those who were still teetotal. Aitken et al. (1988a) interviewed 150 children in focus groups, aged 10–16 years. A follow-up study comprised face-to-face interviews with 433 children aged 10–17 years and involved respondents in identifying still photographs from television advertisements (Aitken et al., 1988b). Pre-teenage children were found to enjoy some television advertisements for alcoholic products. Liking of these advertisements can change with age, however. UK research has shown that televised alcohol ads that are popular among 10-year-olds are less so among 12-year-olds (Aitken et al., 1988b). Even so, most pre-teens and teenage respondents in this UK study expressed some degree of liking for alcohol advertisements (Hastings, MacKintosh & Aitken, 1992).

'Liking' as a response is rather non-specific. What does it really tell us about the way young consumers are responding to alcohol advertisements? Research by the Aitken and Leathar group indicated that pre-teenagers and teenagers enjoy watching televised alcohol advertisements. As we will see later, they liked the humour in these advertisements at all ages in the range sampled, and the mid-teens also liked other stylistic aspects of these commercial productions. Although significant proportions of these youngsters said they 'liked' alcohol advertisements on television, many were also able to articulate some awareness that these messages were targeted at adults and not at them (Young, 2003). The degree of attention to alcohol advertisements also depended upon whether the youngsters were already alcohol consumers themselves. Those who drank exhibited greater appreciation of alcohol advertisements than did those who did not drink (Aitken, 1989). Despite the finding that among teenagers, drinkers liked alcohol advertisements more than non-drinkers did, doubt has been thrown on whether this

research demonstrates a causal connection between exposure to alcohol advertising and its consumption (Young, 2003).

The significance of 'liking' as a youth response to alcohol advertisements and the degree of attention paid to such advertising was confirmed by US research. In this case, early teenagers (aged 13 to 16 years) were shown a series of videotaped advertisements for beer, wine and soft drinks that had originally been broadcast on television. Respondents indicated whether they had seen these advertisements before and how much the advertisements had attracted their attention, then provided a number of evaluative ratings for each commercial message. They were also asked how much they drank alcoholic beverages and how often they got drunk. The findings indicated that respondents who claimed to pay attention to alcohol advertisements also drank more and enjoyed the advertisements more, as well. The researchers reasoned that if the liking of these advertisements motivated attention that was, in turn, linked to propensity to drink, advertisers could provide a useful social function by making their alcohol advertisements less attractive to young people (Grube, Madden & Fries, 1996).

What we need to unravel is whether the alcohol consumption came first or whether it followed the enjoyment of advertising. This is a more difficult issue to clarify. What does seem apparent from these early British findings, however, is that once a youngster has become an underage drinker, he or she will become more aware of and attuned to advertising for alcohol. It is also possible that the youngster might identify with these commercial messages more because they feature other drinkers – a community of which they now regard themselves as members. There is evidence also that drinkers appreciate alcohol advertisements to a greater extent than do non-drinkers. Adolescents who had become underage consumers of alcohol and others who were experimenting with alcohol tended also to enjoy the humour of alcohol advertisements more than other children and teenagers did (Aitken, 1989).

Awareness of alcohol advertisements does not necessarily mean that such messages are liked in every way. The liking of alcohol advertisements may be qualified, rather than unconditional. Waiters et al. (2001) conducted focus group interviews with 9- to 15-year-olds in California and assessed respondents' opinions of six television advertisements for beer. This young sample displayed widespread enjoyment of beer advertisements in terms of their production attributes, but some reacted negatively to the fact that they were for a beer. Disliked elements in advertising included the way they portrayed women and their encouragement to drink.

Determining whether, to what extent and in what ways young people like or dislike alcohol advertisements can require subtle lines of questioning. Some children may claim to either like or dislike these advertisements to create an impression for 'effect'. Thus, some children may say they like everything about an advertisement except that it is selling an alcoholic beverage. Hence, liking of the advert and the product may evoke distinct schema (see Nash, 2002; Waiters et al., 2001).

In fact, children may recognize that alcohol advertisements are not meant for their age group anyhow. Hence, while alcohol consumption might be projected as 'cool' by some advertisements, though not by others, either message may carry little direct relevance for pre-teenagers who have not yet begun to think about drinking themselves.

A controlled experimental study of liking for alcohol (and tobacco) advertisements examined the degree to which liking of the advertisement for a product type is related to susceptibility to consume it (Unger, Johnson & Rohrbach, 1995). A sample of 386 13- to 14-year-olds was recruited to take part in this investigation in southern California. The sample was slightly more heavily weighted towards females (54 per cent). All participants were presented with two booklets that contained print advertisements for alcohol and tobacco products from male- and female-oriented magazines. Brand names and verbal references to the product were digitally removed in each case. Each advertisement was evaluated in turn, using a common set of rating scales. Participants were asked to identify the (missing) brand name, to say how much they liked the advertisement and rate the degree to which it made them want to buy the product. Their alcohol-consumption status was also rated. Participants were divided into non-susceptible non-drinkers who did not drink and were unlikely to try, susceptible non-drinkers who did not drink but might try in the future, and drinkers who had tried alcohol at some point.

Alcohol users were more likely than non-susceptible non-users to recognize alcohol brands, but this difference did not quite achieve statistical significance. Alcohol consumption was a significant predictor of liking for alcohol brands in three out of six alcohol brands that were evaluated. In the case of just one brand, liking was greater among susceptible non-drinkers than non-susceptible non-drinkers. Hence, some evidence emerged that liking for alcohol advertisements was enhanced by being a drinker already. Among non-drinkers, those who thought they might drink in the future were more likely than committed non-drinkers to like alcohol advertising. These results, however, reveal nothing directly about any possible effects of alcohol advertising on the onset of alcohol consumption among young people.

Further evidence found that liking of alcohol advertisements could invoke effects on consumption that were manifest over time. Research with pre-teenagers and teenagers in the United States revealed that liking of these advertisements, as distinct from mere exposure to them, was related to having positive expectations about alcohol and to the belief that more of their peer group drank. These beliefs, in turn, were related to onset of alcohol consumption three years later (Chen & Grube, 2004).

The effects of alcohol advertising on alcohol consumption

In determining what the evidence really shows about the impact of alcohol advertising on actual consumption, the research evidence can be organized by methodology. Some studies have attempted to address the issue of a direct cause-effect relationship through interventionist methodologies in which young people are exposed to alcohol advertising or media portrayals of alcohol consumption under controlled conditions. Subsequent measures are then implemented to assess whether alcohol consumption behaviour has been primed in a particular way by the earlier media exposure.

Most of the research that has attempted to demonstrate relationships between alcohol-advertising exposure and alcohol consumption has been conducted in the 'field' among large samples of young people and has been dependent upon their self-reports about their behaviour. Such studies use survey methodology to determine whether reported exposure to alcohol advertising is correlated with or predictive of alcohol consumption. Some studies have surveyed samples of young people on one occasion only, while others have surveyed them more than once over time.

Experiments

Experimental studies allocate participants, usually at random, to different intervention conditions controlled by the researcher. Although data are collected from individuals, analyses focus on group-level differences. Such studies may demonstrate the ability of alcohol advertising to create a short-term interest in alcohol consumption or to shape a preference for one type of drink over another. They do not indicate anything about the role advertising might play in the genesis of alcohol consumption in individuals (McCarty & Ewing, 1983; Kohn & Smart, 1984; Sobell et al., 1986).

One of the earliest laboratory experiments invited participants to evaluate the spirit and mix content of vodka and tonic drinks. They

were also shown print advertisements for alcohol and tobacco products as part of the procedure. The findings indicated that those who witnessed the alcohol advertisements drank more vodka. The researcher interpreted this as evidence for an effect of advertising on consumption volume (Brown, 1978).

In a creative but problematic study, McCarty and Ewing (1983) invited groups of participants to take part in an investigation described to them as examining the effect of alcohol consumption on group discussions. At the outset, some groups consumed alcoholic drinks and others did not. Some of them witnessed alcohol advertisements and others did not. During an interval, all participants had the opportunity to prepare and consume alcoholic drinks. The researchers measured the total amount of alcohol consumed by the different groups. No differences in overall amount of consumption emerged, but breath tests indicated a greater presence of alcohol in the blood of those who had seen the alcohol advertisements. Unfortunately, breath test results can be affected by individual tolerance for alcohol and not just by amount consumed. Moreover, the results were taken for groups rather than for individuals, and there was some evidence that group results could have been affected by particularly heavy drinkers.

Kohn, Smart and Ogborne (1984) conducted research with shoppers in a mall who were asked to view and evaluate print alcohol or non-alcohol (control) advertisements. Participants were given a $5 restaurant voucher for their help. Details were then collected from the restaurant on the alcoholic beverages ordered by voucher holders. Finally, all participants were contacted by telephone 6 to 12 weeks later. There was no evidence that exposure to alcohol advertisements in this controlled context had any impact on alcohol consumption within the mall that day or later.

Kohn and Smart (1984) conducted an experiment in which 125 male college students were shown a videotaped recording of an indoor soccer match and another of the 1982 NFL Super Bowl. Different versions of the programme were produced that included zero, four or nine beer advertisements. The participants were told at the outset that the purpose of the study was to evaluate the potential fan appeal of a televised soccer game. Refreshments would be available, and among the drinks, participants could choose between soft drinks or beer. Half the participants were given immediate access to beer, which they could consume throughout the session, while the other half were told that because of a mix-up, the beer would be late arriving; beer was made available to the second group about 30 minutes after initial instructions were given.

Beer consumption occurred throughout where beer was available. Delayed availability of beer resulted in compensatory behaviour whereby the men who had been made to wait for beer to become available drank more once it had arrived. The occurrence of advertising produced a temporary upward shift in beer consumption, but over time, consumption dropped away in all conditions. Thus, the results here indicated that televised alcohol advertising is capable of triggering a short-term effect on beer consumption. Furthermore, in conditions where consumption was trailing off over time, a first-time appearance of a beer advertisement could temporarily boost consumption again.

Kohn and Smart (1987) reported a replication of the 1984 study. On this occasion, it was conducted among female college students who viewed videotaped programmes for evaluation that either had wine advertisements embedded within them or did not. Under different conditions, the programming contained zero, three or nine wine advertisements. The one difference between this study and the earlier one was that a debriefing session was added to the end of the procedure that not only revealed the true purpose of the study but also checked whether any participants had been suspicious about its real nature anyway.

Women in the condition with nine alcohol advertisements drank more than those shown three alcohol advertisements, while those in the zero alcohol advertisements condition did not differ from the other two groups in their respective alcohol consumption levels. Out of 66 participants, however, 12 were suspicious about the purpose of the study. When these women were removed from the analysis, all inter-group differences disappeared. This finding underlined the need to include controls for 'second-guessing' what the study concerned, resulting perhaps in participants complying with the experimental hypothesis.

Another laboratory-based experimental study combined an analysis of the potential effects on audience drinking of both televised alcohol advertising and scenes of alcohol consumption within a programme (Sobell et al., 1986). Ninety-six male college students watched a videotape of a television programme with or without scenes involving alcohol consumption and embedded with advertisements for either alcoholic drinks, non-alcoholic drinks or food products. Participants were asked to give personal evaluations of the programme to indicate their current and likely future interest in viewing it. Afterwards, the participants were introduced to an additional procedure that they were led to believe was unrelated to the television-viewing task. This procedure was designed to provide measures of alcohol consumption. Participants were asked to

rate the taste qualities of light beers. During this task they could drink as much or as little beer as they liked.

No evidence emerged that either the presence of alcohol advertising or drinking scenes within a programme caused enhanced alcohol consumption to occur afterwards. The authors pointed out, however, that they had not used a random or representative sample. Television viewing took place in isolation rather than in a social context and in an artificial environment. Also, alcohol consumption was measured immediately after exposure to television programming, so no measures of possible delayed effects of alcohol advertising or drinking scenes were included.

A further study by these researchers several years later indicated that televised advertising and non-advertising images of alcohol consumption did affect the perceived ability of males with a drinking problem. Once again, an experimental design was used in which alcohol or non-alcohol advertisements were embedded in programming that contained or did not contain scenes of alcohol consumption. Before and after the viewing, questionnaire measures of drinking behaviour and related matters were obtained. The key results showed that very heavy drinkers indicated a decrease in confidence of being able to resist drinking heavily again after exposure to alcohol drinking scenes in a television programme and alcohol advertising (Sobell, Sobell, Toneatto & Leo, 1993).

Lipsitz et al. (1993) conducted experimental studies with children aged 10 to 11 years and teenagers aged 13 years. Participants viewed 40 television advertisements that included five beer advertisements, five soft-drinks advertisements and five beer advertisements plus two anti-drinking messages. A questionnaire was used to measure future drinking expectancies. In the study with 10- to 11-year-olds, no effect of alcohol advertising exposure emerged. This finding was replicated among 13-year-olds.

Surveys

Experiments can provide evidence to test cause-effect relationships between variables, but they tend to be based on the responses of non-representative samples of participants. They are also generally conducted under highly controlled and therefore non-natural social and environmental conditions. As a result, there are always questions about whether their findings have ecological validity and can be generalised to real-life settings. An alternative methodology is to conduct a survey in which much larger samples of respondents can be recruited that more robustly represent the populations from which they are drawn

and in which data are collected about people's experiences in their real lives. Survey studies can obtain data from individuals about both their alcohol-consumption habits and preferences and their exposure to alcohol advertising. Other information may also be collected about family background, peer groups, attitudes and beliefs, and so on. The inherent weakness of surveys lies in their reliance on self-reported data that can lack accuracy when respondents have no accurate behavioural memories to call upon.

Cross-sectional surveys collect data from a sample of respondents at one point in time and have indicated significant statistical associations between reported alcohol advertising exposure and alcohol consumption (Atkin & Block, 1984a; Atkin, Neuendorf & McDermott, 1983) or between the liking of alcohol adverts and alcohol consumption (Wyllie et al., 1998). Longitudinal surveys collect data at two or more points in time and have also indicated links between self-reports of advertising exposure and alcohol consumption among young people (Connolly, Casswell, Zhang & Silva, 1994; Ellickson, Collins, Hambarsoomians & McCaffrey, 2005).

One of the first major survey-based studies of relationships between exposure to alcohol advertising and young people's consumption of alcohol in the United States found that among 12- to 18-year-olds, those who were found to be highly exposed to alcohol advertising drank more frequently and heavily (Atkin and Block, 1981). In all, six different studies were completed and published in a series of reports and papers (Atkin et al., 1983; Atkin & Block, 1984b; Atkin, Hocking & Block, 1984). In the main technical report, however, the authors advise caution in the interpretation of their data, given their correlational nature.

In one analysis, comparisons were made between youngsters in terms of whether they were more likely to report having tried a number of brands of beer if they also reported heavy exposure to alcohol advertising. In this case, a greater percentage of 'high alcohol advertisement exposure' (52 per cent) than of 'low alcohol advertisement exposure' respondents (37 per cent) claimed to have tried any of six brands of beer (Atkin & Block, 1984b).

Atkin et al. (1983) reported that young people with heavy exposure to alcohol advertising were much more likely to engage in heavy episodic drinking at least once a week. Reported problem drinking among the teenagers in this sample was associated with regular exposure to alcohol advertising. Among older teenagers, those who had heavy exposure to alcohol advertising were much more likely to report driving after drinking than were those with low exposure to alcohol advertising.

The Atkin and Block research was strongly criticised by Strickland (1984), who was concerned about non-representative sampling of respondents. The dependence upon college students on communications courses meant that the samples were probably not representative of the general student population, let alone the general consumer population. Another sampling problem was that there seemed to be a strong bias towards drinkers, while non-drinkers were under-represented. Strickland also articulated concerns about some of the measures of media exposure, most notably those used to measure television viewing and magazine reading. The self-report nature of these measures rendered them vulnerable to inaccuracies born out of memory failure. The correlation-based nature of the analyses also opens up the possibility of a reverse causal hypothesis that drinkers are more attuned to alcohol advertising.

Strickland (1982) conducted his own research into alcohol advertising and alcohol consumption among young people. A survey of American 12- 18-year-olds was carried out in which it was reported that exposure to alcohol advertising was correlated with alcohol consumption. Strickland reported findings from an adolescent sample of 1650 who were administered a self-completion questionnaire that asked about their alcohol consumption, advertising exposure and attitudes towards to advertising (i.e., liking of adverts). Age of respondents and reports about alcohol consumption among peer groups were also measured (Strickland, 1981, 1982, 1983).

This survey used a more robust sampling approach, but as it focused on a younger sample, its eventual recruitment was limited by parental consent issues. The alcohol-consumption measure comprised a self-report of quantity and frequency of drinking in terms of ounces of alcohol per day. Advertising exposure was calculated by getting respondents to indicate how often they had watched programmes from a supplied list over the previous month, in the case of weekly programmes, or previous week, in the case of daily programmes. Television station logs were then used to identify the presence of alcohol advertisements within these programmes. A formula was used to compute the level of alcohol advertising exposure from these sets of data. Attitudes towards advertising were measured with statements that explored the reasons why respondents would want to watch commercials. The reasons included to find out what certain products are about or about the kinds of people who might use them.

Focusing on respondents who classified themselves as drinkers (75 per cent of sample), Strickland found no significant relationships between

his advertising-exposure measure and total consumption of alcohol. Age was significantly and positively related to alcohol consumption and negatively related to advertising exposure. These findings may signal that as they advance into middle and later adolescent years, young people drink more and watch television less often. Similarly, ethnic differences emerged in that black respondents watched more television than white respondents but drank less alcohol.

Although there was no link found between advertising exposure and alcohol consumption across the sample as a whole, some significant relationships did emerge for one subcategory of young person. In particular, one advertising orientation emerged as a possible mediator of such a link. Teenagers who said they watched advertisements for social-comparison purposes displayed a significant statistical relationship between reported alcohol consumption and measured advertising exposure. Watching advertising to have something to talk about did not make any difference to the link between advertising exposure and alcohol consumption.

Longitudinal survey research conducted in New Zealand has found that the more male teenagers were able to recall beer advertisements at the age of 15 years, the more they drank at 18 years. This finding occurred only for beer drinking and not for consumption of wine or spirits. The advertising-recall effect had only a modest effect even in the case of beer drinking (Connolly et al., 1994). This finding was reinforced in further longitudinal research that followed 18-year-olds through until age 21 and found that earlier liking of televised alcohol advertisements and associated brand allegiance were associated with greater volume of beer consumption later on (Casswell & Zhang, 1998).

While recall of advertising messages is perhaps a prerequisite of impact upon the audience, whether – in the case of televised advertisements – viewers like the commercial messages may also make a difference to links between advertising exposure and alcohol consumption. Further data from New Zealand from among young people aged 18 to 29 years indicated that liking of beer advertisements on television was associated with being a heavier drinker and a greater likelihood of admitting to drink-related problems, such as work performance being adversely affected or getting involved in drink-fuelled fights (Wyllie et al., 1998). As the authors on this occasion themselves cautioned, however, the data reported here could not demonstrate causal connections between any of the measured variables.

Unger, Schuster, Zogg, Dent and Stacey (2003) carried out a survey of Californian teenagers and assessed exposure to a variety of types of

alcohol advertising and alcohol consumption. Liking of alcohol advertisements and other media-exposure variables were significantly associated with reported alcohol use. Measures included general television viewing, frequency of viewing televised sports, perceived frequency of exposure to alcohol advertising, ability to recognise alcohol advertisements and recall brand names, receptivity of alcohol marketing, and liking of alcohol advertisements. Results indicated that liking of advertisements, brand recall and receptivity to alcohol marketing predicted alcohol use. The findings suggested that exposure to alcohol advertising could produce in young people favourable opinions about alcohol and that this may, in turn, increase their likelihood of future consumption.

The same research group conducted a longitudinal survey of American teenagers aged 13–14 years that focused on the impact of televised alcohol advertisements on youngsters' likelihood of drinking alcohol. Results indicated that increased exposure to alcohol advertisements on television in the first year of the study was associated with greater likelihood of consuming beer or wine a year later (Stacey, Zogg, Unger & Dent, 2004).

Ellickson et al. (2005) surveyed over 3,000 American youth for three years starting when they were 12 years of age. During this time they were asked questions designed to track their alcohol-consumption behaviour, exposure to different kinds of alcohol advertising and other social factors linked to drinking. This panel of youngsters was surveyed three times over the three years. The initial survey established whether they had yet started to drink alcohol; the second survey focused more on reported exposure to alcohol advertising; and the third survey returned to focus its analysis on drinking behaviour again.

At the outset, among youth in grade seven in the US school system, around six in ten had tried alcohol (61 per cent) while the remainder (39 per cent) said they had not yet done so. By the time they had reached ninth grade, around half of the grade-seven non-drinkers had started to drink, while more than three in four grade-seven drinkers were still drinking in the ninth grade. Perhaps the most significant finding, however, was that the heavier their reported exposure to alcohol advertising in grade eight, the more likely it was that grade-seven drinkers or non-drinkers would drink in grade nine. The advertising 'effect' persisted even after statistical controls for other social factors, such as peer and parental influences on alcohol consumption. Furthermore, reported exposure to point-of-sale and magazine advertising exhibited stronger relationships to later drinking than did other forms of alcohol advertising.

Some researchers have explored links between the volumes of alcohol advertising and promotion that occur in particular markets and young people's drinking habits. One such study found that the amount of money spent on beer advertising could predict young people's brand awareness, brand preferences and alcohol consumption. Those brands on which the most advertising revenue was spent were also the more popular and the most likely to be among the brands adolescent respondents said they would most like to drink (Gentile, Walsh, Bloomgren, Atti & Norman, 2001).

Another longitudinal panel study in the United States combined self-reported data about alcohol advertising exposure and advertising expenditure data in different regional US markets to investigate the impact of advertising on alcohol consumption among teenagers and young adults aged 15–26 years (Snyder, Fleming, Slater, Sun & Strizhakova, 2006). Four survey waves were carried out over a period of more than two years. The initial survey sample comprised nearly 1900 respondents which eroded to fewer than 600 respondents by the fourth survey wave. Respondents were sampled from 24 regional markets for which data on alcohol industry advertising expenditure were obtained and combined with the survey data.

Self-reported alcohol advertising exposure was related to reported alcohol consumption, while market advertising expenditures per capita were also related to drinking levels and to growth in drinking over time. For every additional dollar per capita spent on advertising in the market, individuals consumed 3 per cent more alcoholic beverages per month. Young people who lived in markets with lower alcohol advertising expenditure consumed less alcohol and exhibited declining consumption over time.

In the UK, Gunter, Hansen and Touri (2009) questioned young people aged 17–21 years about their alcohol-consumption habits and self-reported exposure to alcohol advertising. Alcohol consumption in general exhibited no significant relationship with exposure to alcohol advertising. Exposure to televised advertising for cider and alcopops (but no other form of advertising), however, was related to reported consumptions levels for those two types of alcoholic beverage.

Conclusion

Growing concern about the prevalence of young people's misuse of alcohol and the personally and socially undesirable side effects to which such behaviour can lead has led to increased attention being directed

towards identifying causes of this problem. Despite evidence that early drinking of alcohol is linked to parental and peer-group behaviour and attitudes (e.g., Martinic & Measham, 2008a, 2008b), the role played by the marketing of alcoholic beverage products has come under close scrutiny. National governments and their advisers have frequently criticised alcohol manufacturers and sellers for irresponsible advertising and other promotional practices (BMA, 2008; Hastings & Angus, 2009).

The criticisms levelled against alcohol advertising are that it might contribute both to the premature onset of alcohol consumption and then to the development of patterns of alcohol abuse or misuse. By removing such advertising or at least restricting its prevalence, salience and content, such influences will be reduced or disappear. Whether the removal or restriction of alcohol marketing will produce significant reductions in the prevalence of alcohol consumption among young people or in problem drinking depends on whether the promotion of alcohol through advertising and other forms of marketing is linked causally to such behaviour in the first place. The empirical evidence on this point is far from conclusive.

As this chapter has shown, both pre-teenage children and teenagers have been found to exhibit some awareness of alcohol advertising and are capable of saying what they like and dislike about such advertising. There may also be some brand recognition among those too young to consume alcohol legally. The fact that underage drinkers indicate greater liking of alcohol advertisements or exhibit greater brand awareness than non-drinkers is not sufficient evidence that their exposure to such advertising triggered the onset of their alcohol consumption.

Attempts in experimental studies to manipulate the propensity of individuals to select alcoholic drinks in the short term have met with mixed success. The participants in these studies occasionally exhibited an increased interest in alcohol immediately after exposure to alcohol advertising, though on other occasions this effect failed to appear. Larger-scale surveys reported relationships between self-reports of alcohol consumption and exposure to alcohol advertising, but such data do not represent evidence of causality and, in any case, may fail to provide valid data on actual behaviour, especially when respondents are required to estimate from memory how often they were exposed to alcohol advertising.

Proponents of greater restrictions on alcohol advertising have argued the need for tighter codes that are underpinned by legislation and reinforced by severe penalties for code breaches. They are unimpressed by existing codes of practice and reviews of those codes enacted by

regulators, which they regard as failing to confront the critical weaknesses in code implementation. It is argued that such codes need to sanction regulator intervention prior to the broadcast or publication of advertisements, since reactive measures are ineffective and are applied only after the damage has been done (BMA, 2008; Hastings & Angus, 2009). The imposition of restrictions at that level of severity must be underpinned by solid and reliable evidence of the impact of alcohol advertising. The review of research provided here indicates that more powerful evidence is needed to justify even more severe codes and regulatory practices.

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6
Advertising to Children in China

Kara Chan

Introduction

China, which has the largest population of children in the world, adopted a one-child-per-family policy in 1979, and it is the current rule in urban China (Zhang & Yang, 1992). In 2008, there were 257 million children under age 15 in China, with approximately 45 per cent urban and 55 per cent rural (Population Reference Bureau, 2009). In fact, the urban population increased from 31 per cent of the total in 1995 to 46 per cent in 2009 (Population Reference Bureau, 2009; United Nations, 2005), reflecting a rapid rate of urbanization.

China's children represent an important market because of their growing purchasing power and their enormous influence on family purchase decisions (McNeal & Yeh, 1997). While rapid commercialization of childhood as a result of economic restructuring, new affluence and innovative retailing practices is not unique to China, its single-child policy along with the rapid economic development have enabled the process to unfold at a fast pace and across all social strata (Davis & Sensenbrenner, 2000). This process has created an unparalleled opportunity to develop a new generation of consumers and study the consumer behaviour of China's children (Chan & McNeal, 2006a).

Consumer socialization and socializing agents

The process of learning to be consumers is usually referred to as consumer socialization (Ward, 1974). Children may learn consumer behaviour patterns from various socializing agents, including parents, peers, schools, stores, media, and the products themselves and their packages (Moschis, 1987). The influence of television on children has two

dimensions – advertising and editorial/programming content (O'Guinn & Shrum, 1997). Advertising is designed to inform these young consumers about products and encourage behaviours such as noting the products at the stores, memorizing brand names, asking parents for the products or buying the products with their own money. Advertising on television has probably received more attention in the research literature than any other consumer socialization agent (Moschis, 1987). Both advertising and editorial/programme content of television have the potential to provide children with knowledge and guidance in their consumer behaviour development. The amount of interaction children have with the media appears to be positively related to learning consumer behaviour.

Retail shops serve as another socializing agent for consumer behaviour as children can see and touch the products, compare different brands and interact with the salesperson to get more information about various products and services. Two studies were conducted to investigate the visits to different types of retail stores by Chinese children. In Chan's (2005) survey of 965 urban children aged 5 to 13 years, the three most popular retail shops among urban children were bookstores/stationery stores, supermarkets and restaurants/fast-food shops. The percentages of children who had visited these shops in the previous month were 78 per cent, 72 per cent and 68 per cent, respectively. The least popular shops were cybercafes, electronic games centres and computer stores. Only 9 per cent, 15 per cent and 26 per cent of children, respectively, had visited these three types of shops in the past month (Chan, 2005).

In Chan and McNeal's (2006b) survey of 1008 rural children aged 5 to 13 years, the three most popular retail venues were clothing stores, bookstores/stationery stores and supermarkets. The percentages of children who had visited these shops in the past year were 77 per cent, 75 per cent and 56 per cent, respectively. The least popular shops were cybercafes, computer stores and electronic game centres. Only 7 per cent, 9 per cent and 16 per cent of the respondents had visited these shops in the past year (Chan & McNeal, 2006b).

Store visits demonstrated age and gender differences. In both studies, older children more often visited and consumed at different kinds of retail shops than did younger children. Boys were more likely than girls to have visited computer stores and cybercafes. However, urban girls were more likely than urban boys to have visited clothing stores in the past month (Chan, 2005; Chan & McNeal, 2006b). The low incidence of visits to cybercafes, computer stores and electronic game

centres among children in both studies suggests that consumption of new media at that time may have been restricted to the domestic context.

Media ownership and usage

Chan and McNeal (2006a) examined how media ownership and media usage varied among urban and rural children in Mainland China. Altogether, 1977 urban and rural children ages 6 to 13, from the four Chinese cities of Beijing, Guangzhou, Nanjing and Shanghai and from the rural areas of the four provinces of Heilongjian, Hubei, Hunan and Yunnan, participated in the study, in 2004 (for urban) and 2003 (for rural). Media ownership and media exposure were high for television, children's books, cassette players, VCD players and radios among both urban and rural samples (see figs. 6.1 and 6.2). As expected, media ownership and exposure were higher among urban than rural children. However, television ownership and exposure were slightly higher among rural than urban children. The urban-rural gap between media ownership and media exposure was more prominent for new media, such as DVDs and computer/Internet (Chan & McNeal, 2006a).

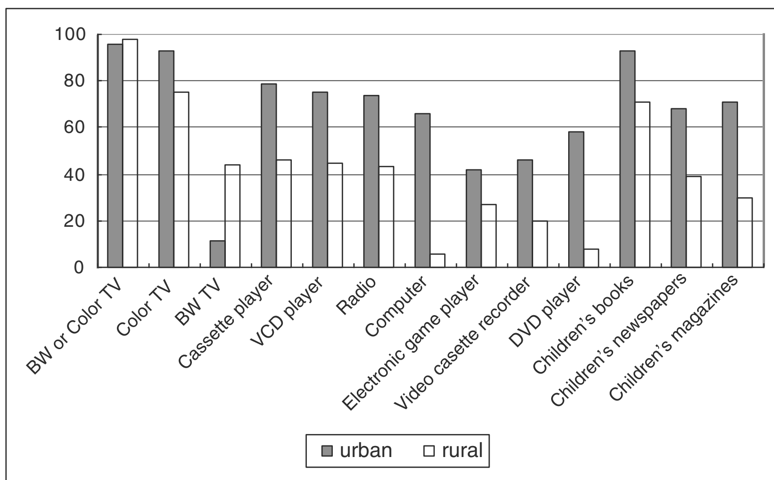

Figure 6.1 Percentage of urban and rural children reporting household ownership of broadcast and print media in 2004 (urban) and in 2003 (rural).

Source: Chan & McNeal (2006a) with permission of Emerald Group Publishing Limited.

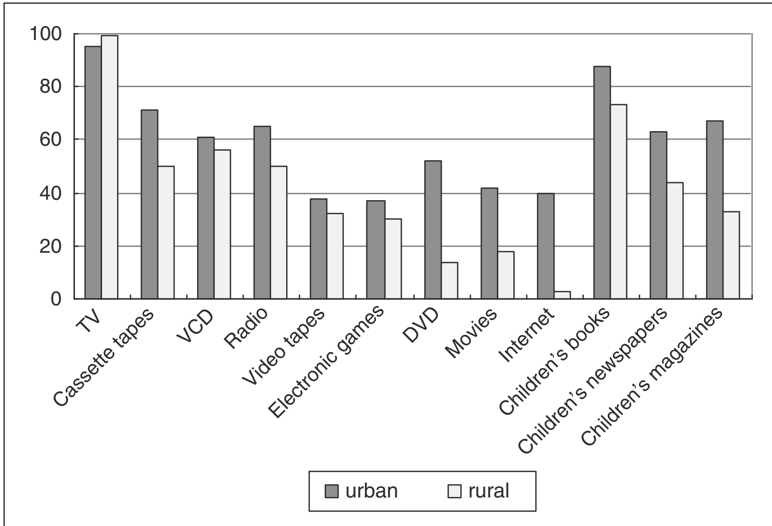

Figure 6.2 Percentage of urban and rural Chinese children exposed to various media in one month in 2004 (urban) and in 2003 (rural).

Source: Chan & McNeal (2006a) with permission of Emerald Group Publishing Limited.

Given these results, the authors suggested that television, the Internet and children's print media were all potential media for promotion to urban children. Similarly, TV, children's books, cassette tapes, VCDs and radios were viewed as good potential media for promotion to rural children.

Scholars generally assume that rural and urban populations have different cultures. According to Rogers (1960), urban and rural societies differ in family, group relationships and values. Rural families are more likely to see children as economic assets. Rural families are more likely to be larger and have senior members. Rural families are more likely to retain educating, entertaining, religious orientations and protection functions. Neighbours, relatives and kinship groups are more important to the rural population than to the urban population.

Schramm (1977) proposed a theory about societal development and the key players in the communication process. In his framework, in traditional and modern interpersonal societies, informed persons take up the role of disseminating knowledge about the environment, while in modern media societies, news media take up the role of transmitting knowledge. Similarly, mass media play an important role in socialization of new members in modern society, while parents and teachers play an important role in socialization in traditional society.

The same 2003–2004 survey of 1977 urban and rural children showed significant differences in perception of personal and commercial communication sources among urban and rural children (Chan & McNeal, 2007). As predicted by Rogers' (1960) and Schramm's (1977) theories, urban children found commercial sources more useful and credible than rural children did in obtaining information about new products and services, while rural children perceived personal sources as more useful and credible than urban children did in obtaining information about new products and services. Results indicated that mass media played a more important role in consumer socialization among urban children than rural children.

Furthermore, regarding information about new products, older children in both urban and rural samples found parents and grandparents less useful and less credible than younger children did. Older children in both urban and rural samples found commercial sources more useful and credible than did their younger counterparts (Chan & McNeal, 2007). Collectively, these findings supported John's (1999) developmental model of consumer socialization that describes children's response to advertising.

In this model, learning to be a consumer is a developmental process spanning three stages: perceptual (3–7 years), analytical (7–11 years) and reflective (11–16 years). In the perceptual stage, children can grasp concrete knowledge only. Thus, their consumer knowledge is characterized by perceptual features and distinctions based on a single and simple dimension, such as 'commercials are short'. They are egocentric and generally unable to take others' perspectives into account. Children in the analytical stage are able to grasp abstract knowledge. Concepts are viewed in terms of functional or underlying dimensions as children show the ability to analyse marketplace information in two or more dimensions and understand the contingencies. Similarly, children in the analytic stages have presumably developed new perspectives that go beyond their own feelings and motives and can assume dual perspectives – their own and that of others. They are able to analyse and discriminate products and brands based on multiple dimensions and attributes. Finally, children in the reflective stage show a multidimensional understanding of concepts such as brands. They shift into more reflective ways of thinking and reasoning and focus more on the social meanings and underpinnings of the consumer marketplace than younger children do.

John's (1999) theoretical perspective has ramifications for understanding how children respond to advertising within different media contexts, such as television, which remains among the major media forms to reach young consumers in China.

Understanding television advertising

Chan and McNeal conducted a survey in 2001 and 2002 to examine urban and rural Chinese children's understanding of marketing communication, their attitudes towards television advertising, their perception of brands and their attitudes towards commercials using different advertising approaches. The urban data was published (Chan & McNeal, 2004a). This chapter represents the first time the rural data has been reported. In the rest of the paragraphs, report of the rural data or the new comparison of the urban and the rural data is referred to as the 'present study'. The methodology of the present study is outlined in Appendix 1.

Children's understanding of television advertising was measured among children in urban and rural areas by asking them to characterize TV commercials and their intent and to specify why TV stations broadcast commercials. For each question, five to six answers were presented. These responses were developed based on findings in the research literature and the results of a focus-group study conducted in Beijing (Chan & McNeal, 2002). Among all the answers presented in the first question, 'What are TV commercials?', only one indicated respondents' awareness of the persuasive intent of television advertising (i.e., television commercials are messages 'to promote products'). For the second question, 'What do commercials want you to do?', two of the five answers indicated respondents' awareness of the persuasive intent of television advertising (i.e., television commercials want us to 'buy the products' and 'tell the parents about the products'). For the third question, 'Why do television stations broadcast commercials?', two of the six answers indicated respondents' awareness of the profit intent and the notion of programme sponsorship (i.e., television stations broadcast commercials in order 'to make money' and 'to subsidize the production of programmes'). These answers were classified as 'demonstration of understanding' of television advertising. All other answers were classified as 'not demonstration of understanding' of television advertising.

For the data analysis, children were categorized into four age groups: 6–7 years, 8–9 years, 10–11 years and 12–14 years, representing the perceptual, early analytical, late analytical and reflective stages, respectively, of John's (1999) model of consumer socialization. Table 6.1 summarizes by age group and by urban/rural residency the percentage of children who were classified as 'demonstration of understanding' of television advertising according to the three questions.

For the first question, 'What are TV commercials?', 34 per cent of the urban sample demonstrated the persuasive intent of television advertising by answering correctly, compared with 30 per cent of their rural

Table 6.1 Percentage of children giving appropriate responses to questions about television advertising, by age group among urban and rural respondents

		Age group and cognitive stage				
		6–7 Perceptual	**8–9 Early analytical**	**10–11 Late analytical**	**12–15 Reflective**	**All**
What are TV commercials?	Urban	16	29	41	43	34
	Rural	39	15	30	37	30
What do TV commercials want you to do?	Urban	67	60	70	69	66
	Rural	55	59	61	61	60
Why do TV stations broadcast commercials?	Urban	53	51	56	57	54
	Rural	60	46	54	45	50

counterparts. For the urban sample, 28 per cent perceived that commercials were messages allowing the audience to take a break from viewing. The percentage of rural children giving this response was slightly less, at 26 per cent. Eleven per cent of the urban sample perceived commercials as humorous, compared with 12 per cent of the rural sample. About 25 per cent of the urban sample perceived that commercials were messages for introducing products; 28 per cent of the rural sample responded as such. Two per cent of urban sample and 4 per cent of the rural sample reported 'don't know'. Urban respondents showed a general increase with age in understanding 'what are TV commercials', unlike rural respondents. However, a high proportion of young rural respondents understood that television advertisements are messages for promoting products.

For the second question, 'What do TV commercials wants you to do?', 66 per cent of both the urban sample and the rural sample demonstrated the persuasive intent of television advertising by giving the 'correct' answers. Among both the urban and rural samples, 21 per cent perceived that commercials were intended to prompt individuals to check the products at stores. Among the urban sample, 9 per cent perceived that commercials were intended to prompt individuals to consider whether the advertisements were good or bad; 15 per cent of the rural sample reported as such. (This incorrect answer suggests that advertisements are similar to programme contents that have no particular persuasion intents.) Again, small percentages of urban (4 per cent) and rural respondents (5 per cent) responded 'don't know'.

Urban respondents showed a general increase with age in understanding of 'what do TV commercials want you to do', unlike rural respondents. The percentages of the rural respondents who answered this question correctly were comparable across all four age groups.

For the third question, 'Why do television stations broadcast commercials?', 54 per cent of the urban sample and 50 per cent of the rural sample demonstrated the persuasive intent of television advertising by answering correctly. Among the urban sample, 17 per cent perceived that television stations broadcast commercials for the benefit of the public; 24 per cent of the rural sample reported as such. About 14 per cent of the urban sample and 8 per cent of the urban sample said that television stations broadcast commercials because the stations did not want to waste time. About 11 per cent of the urban sample and 12 per cent of the rural sample thought that television stations broadcast commercials to help the audience. Small percentages of both samples responded 'I don't know.'

Urban respondents did not show a general increase with age in their understanding of 'why do television stations broadcast commercials', compared with the rural respondents. Older rural children aged 12–15 were less likely than younger rural children aged 6–7 to perceive that television stations broadcast commercials for money and for sponsoring the programmes. Thus, the older children tended to perceive that television stations broadcast commercials as a benefit to the public. So, even if these children know that television stations broadcast commercials to make money and to sponsor programmes, they may fail to understand the persuasive intent of advertising.

Overall, significantly higher percentages of urban respondents demonstrated understanding of television advertising and its intent than did rural respondents.

Attitudes towards television advertising

Perceived truthfulness of advertising differed among urban and rural respondents (Table 6.2). Overall, rural respondents were more likely than urban respondents to perceive television commercials as truthful. On a five-point scale (1 = nearly all are not true; 5 = nearly all are true), children's perceived truthfulness of television advertising was 3.1 for urban and 3.5 for rural respondents. This difference was significant as rural children were more likely to perceive television advertising as truthful than were urban children.

Pearson correlation coefficients between perceived truthfulness of television advertising and age for the urban and the rural samples were –0.01 ($p > 0.05$) and -0.07 ($p < 0.05$), respectively. With increasing age,

there were fewer urban and rural respondents who thought that nearly all television advertising was true or that nearly all television advertising was not true. With increasing age, more urban than rural respondents perceived that half the television advertising was true. An inverse relationship, however, was found among the rural respondents.

Results indicated that rural children put more trust in television advertising, reflecting their differential exposure to television channels and programmes. The regional television channels in rural provinces carried fewer children's television programmes than did the national television channels (Chan & McNeal, 2004a). Thus, rural children may have consumed more national television channels than urban children did. In fact, the well-established image of CCTV may lend its credibility to the television advertising it carries. Because of the strict censorship process, CCTV is also less likely to broadcast deceptive advertising (Chan & McNeal, 2004b). Accordingly, rural children were more likely to perceive television advertising as truthful than were urban children. Table 6.3 summarizes the respondents' liking of television commercials. Over one-quarter of the respondents (26 per cent) reported neutral feelings towards television commercials. Twenty-nine per cent of the sample reported that they liked television commercials, and 17 per cent reported that they liked television commercials very much. Seventeen per cent claimed to dislike television commercials, and 12 per cent reported that they very much disliked television commercials.

Table 6.2 Children's perception of the truthfulness of television advertising, by age group among urban and rural respondents

Perceived truthfulness of TV advertising (%)		**Age group**				**Total**	**All**
		6–7	**8–9**	**10–11**	**12–15**		
Nearly all are true	Urban	18	12	9	5	11	15
	Rural	29	24	18	16	20	
Most of them are true	Urban	19	20	20	20	20	24
	Rural	23	31	26	32	29	
Half of them are true	Urban	33	42	50	50	45	41
	Rural	39	27	39	39	36	
Most of them are not true	Urban	11	13	14	19	14	12
	Rural	7	13	9	9	10	
Nearly all are not true	Urban	21	12	7	7	11	9
	Rural	1	6	8	5	6	

Table 6.3 Children's liking of television advertising, by age group among urban and rural respondents

Liking of TV advertising (%)		Age group				Total	All
		6–7	8–9	10–11	12–15		
Like very much	Urban	17	13	5	2	9	17
	Rural	27	35	26	20	26	
Like	Urban	19	27	26	21	24	29
	Rural	30	37	36	36	36	
Neither	Urban	20	24	35	44	31	26
	Rural	18	11	18	26	19	
Dislike	Urban	21	18	21	22	20	17
	Rural	12	11	14	12	12	
Dislike very much	Urban	23	17	12	12	15	12
	Rural	14	6	6	6	7	

Liking television commercials differed between urban and rural respondents. A higher proportion of rural children than urban children reported that they liked or very much liked television advertising. A higher proportion of urban children than rural children reported they disliked or very much disliked television advertising. Children's liking score, on a five-point scale (1 = dislike very much; 5 = like very much), was 2.9 and 3.6 for the urban and rural samples, respectively. This difference was significant, as rural children reported liking television commercials more than urban children. The result echoes findings that responses to advertising are more positive in countries with newer advertising industries (Zhao & Shen, 1995). Potentially, children in rural China are not overwhelmed with advertising messages and remain easy to please. Pearson correlation coefficients between liking of television advertising and age for the urban and the rural sub-samples were –0.03 ($p > .05$) and –0.05 ($p > .05$), respectively.

With increasing age, the percentage of urban respondents who liked advertising very much and the percentage of urban respondents who disliked advertising dropped. However, the percentage of urban respondents who expressed a neutral feeling towards television advertising increased with age. Among the rural respondents, age was not related to liking television advertising.

The Pearson correlation coefficients between children's perceived truthfulness of television commercials and liking of commercials were 0.35 ($p < .001$) and 0.28 ($p < .001$) for the urban and the rural samples, respectively. Respondents who perceived television commercials as true liked them more than those who saw them as false.

Perception of brands

Children were asked about the perceived quality of an advertised brand versus a non-advertised brand for a soft drink and a computer. Table 6.4 summarizes the children's perceptions. For both product categories, children showed difficulty providing a definite answer, demonstrated by the high number of children giving 'don't know' answers. There was a greater confusion for soft-drink brands (1180 respondents answering 'don't know') than for computer brands (1018 respondents answering 'don't know'). For both soft drinks and computers, rural children were more likely than urban children to believe that the advertised brand was better. Urban children believed that a soft-drink brand without advertising would be better than a soft-drink brand with advertising. For computers, urban children were more likely to believe that an advertised brand was as good as a non-advertised brand.

Brand equity was an unfamiliar concept among both urban and rural children, as reflected by the large number of respondents answering 'don't know' when asked about the quality of a product with advertising and a product without advertising. Rural children were more likely than urban children to think that an advertised brand was superior to a non-advertised brand. Thus, brand awareness and trust in brand may reflect two different attributes. It was expected that rural children, similar to rural adults, would be less brand-conscious. This is because most of the products rural children encountered in the retail stores are unbranded, according to our observation in a rural county in China in 2002.

Table 6.4 Children's perceptions of brands

Perception of advertised and non-advertised brands	**Total %**	**Urban %**	**Rural %**
Soft drink@			
Advertised brand is better	44.1	39.7	49.0
Non-advertised brand is better	22.0	24.3	19.3
Equally good	26.0	26.7	25.2
Equally bad	8.0	9.3	6.5
Computer#			
Advertised brand is better	46.3	43.0	50.3
Non-advertised brand is better	20.3	20.6	19.9
Equally good	27.1	29.8	23.7
Equally bad	6.3	6.6	6.1

@Excluding 1180 cases that checked 'don't know'
Excluding 1018 cases that checked 'don't know'

Source: Chan (2008) with permission of Emerald Group Publishing Limited.

Rural children may place more trust in a brand than urban children for two reasons. First, rural children were more likely than urban children to perceive television advertising as truthful. Since advertising is about brands, the credibility of television advertising may extend to the advertised brands. Second, rural children visited shops and made purchases less often than urban children did (Chan & McNeal, 2006b). Thus, rural children may have less consumption and brand experience than urban children. Accordingly, they may have a positive picture about the quality of advertised as well as non-advertised brands, as evinced from the low percentage of rural respondents reporting that both advertised and non-advertised brands were equally bad.

Responses to different advertising approaches

Advertising knowledge of a more specific form emerges much later in the developmental sequence as children approach early adolescence (Boush, Friestad & Rose, 1994; Friestad & Wright, 1994). Younger children (ages 7–8) consider advertising primarily as a conduit of product information. Older children (ages 10–11) are able to analyse the creative content and identify some promotion tactics. Among various types of advertising tactics, children easily identify celebrity commercials, as they express a liking for commercials using famous characters (Chan, 2000). By the age of 9 years, children showed a marked improvement in understanding ambiguous wording, humour and imagery found in advertisements (Belk, Mayer & Driscoll, 1984; Nippold, Cuyler & Braunbeck-Price, 1988). Advertisers have suggested that different advertising approaches should be adopted for Chinese children. For example, commercials for younger children should be immediately attractive, while commercials for older children should show how the brand helps children meet challenges and master their environment (O'Hanlon, 2000).

In a focus-group study conducted in Beijing, Chan and McNeal (2002) found that Chinese children enjoyed funny commercials and disliked commercials that were seen as boring. Older children in Mainland China showed a liking for a particular form of advertising, that is, public service announcements. Children's perception of commercials using celebrities was mixed. Younger children considered commercials with a famous person making endorsements more credible, but older children expressed doubt about celebrity commercials (Chan & McNeal, 2002).

Four different advertising approaches were studied, including funny commercials, animated commercials, public service announcements and commercials using celebrities. Children were asked whether they

disliked, neither liked nor disliked, or liked these commercials (coded as 3). 'Don't know' cases were treated as missing cases. Table 6.5 summarizes the mean scores for these four advertising approaches.

Overall, children expressed liking for all four advertising approaches, as seen by all the mean scores being higher than the midpoint of two. A one-way, repeated-measures ANOVA to compare the mean liking scores of the four advertising approaches yielded a significant effect for advertising approach. Children liked funny advertisements the most, followed by animated advertisements, public service announcements and celebrity advertisements. Among the four advertising approaches, celebrity advertisements were the least liked.

Further analyses failed to show any differences by age or region (rural/urban) for funny advertisements. The other three advertising approaches demonstrated significant differences in age and place of residence. Specifically, rural children liked animated advertisements, celebrity advertisements and public service advertisements more than urban children did. Younger children liked animated and celebrity advertisements more than older children did. However, older children liked public service advertisements more than younger children did.

Funny advertisements were welcomed by urban and rural children of all age groups, consistent with findings showing that entertainment value is the most frequently reported reason for liking of television commercials by children in Hong Kong (Chan, 2000). Rural children liked celebrity advertisements much more than did urban children, consistent with findings showing that rural children rely heavily on authority figures and personal sources for new product information (Chan & McNeal, 2007).

Table 6.5 Children's responses to different advertising approaches by age group among urban and rural respondents (1 = disliked, 2 = neither liked nor disliked, 3 = liked)

Advertising approaches		**Age group**				**Total**	**All**
		6–7	**8–9**	**10–11**	**12–15**		
Animated ads	Urban	2.7	2.7	2.6	2.5	2.6	2.7
	Rural	2.9	2.8	2.8	2.7	2.8	
Celebrity ads	Urban	2.2	2.1	2.0	2.1	2.1	2.3
	Rural	2.6	2.5	2.6	2.5	2.5	
Funny ads	Urban	2.7	2.8	2.8	2.7	2.8	2.8
	Rural	2.9	2.8	2.8	2.8	2.8	
Public service ads	Urban	2.3	2.6	2.7	2.8	2.6	2.6
	Rural	2.6	2.5	2.6	2.8	2.7	

Children's response towards their favourite commercials

Kovarik's (2001) survey of adult consumers in China found that 85 per cent of respondents said their favourite commercials made them want to see the commercial again, and 62 per cent said their favourite commercials made them change their attitude towards the brand. However, 67 per cent of adults said their most disliked commercials made them feel 'that couldn't be me in the commercial'.

In the present study, we asked children to check one or more responses for their favourite television commercials, including: want to see the commercial again, have a good impression about the brand, want to buy the product right away and feel that could be me. Table 6.6 summarizes children's response to their favourite commercials. Findings showed that 58 per cent of urban and 47 per cent of rural children reported that their favourite commercials made them want to see the commercials again. Forty-eight per cent of urban respondents and 40 per cent of rural respondents reported that they developed a good impression about the brand from their favourite commercials. Thirty-six per cent of urban respondents and 37 per cent of rural respondents wanted to buy the product immediately. Finally, 29 per cent of urban children and 37 per cent of rural children projected themselves into their favourite commercials.

Chi-square tests were conducted to examine whether responses to favourite commercials differed by age. Findings showed that with increased age, children were less eager to see their favourite commercials again and less likely to associate attitudes towards the commercials with intention to purchase. Increases in age, however, were associated with a

Table 6.6 Children's responses to their favourite commercials by age group among urban and rural respondents

My favourite commercial made me . . . (%)		**Age group**				**All**
		6–7	**8–9**	**10–11**	**12–15**	
want to see it again	Urban	67	55	57	55	58
	Rural	62	50	49	39	47
have a good impression about the brand	Urban	44	44	47	63	48
	Rural	28	26	41	54	40
want to buy the product right away	Urban	44	37	32	34	36
	Rural	36	42	38	32	37
feel 'that could be me'	Urban	42	30	27	18	29
	Rural	16	21	23	28	23

stronger link between attitudes towards the commercials and attitudes towards the brands. This link was stronger among rural children than among urban children. With increase in age, urban children were less likely to project themselves into commercials that they liked very much. However, with increase in age, rural children were more likely to project themselves into well-liked commercials

Concerns about advertising to children

Advertising receives much attention from parents, educators and government policy makers. These constituencies' concerns include the growth of materialism in a traditional socially oriented society, the honesty of advertising in a developing economy, and the role of regulation in a new and expanding market. Chinese parents were concerned about commercials containing offensive scenes, violence and scenes suggestive of sexual content, for example, in commercials for bras and breast builders (Wiseman, 1999; Wang, 2000). Others were concerned about the misleading content and materialistic values in television commercials (Ma, 2000). Traditional Chinese culture puts much emphasis on thrift and frugality and spending within one's means, so Chinese parents worry that advertising encourages children to buy luxurious goods or unnecessary possessions.

Chan and McNeal's (2003) survey of 1665 Chinese parents of elementary schoolchildren aged 6 to 14 in Beijing, Nanjing and Chengdu found that respondents held negative attitudes towards television advertising in general and children's advertising specifically. The negative attitudes stemmed mainly from the perception that advertising was deceptive and annoying. Parents felt strongly that advertising should be banned on children's programming and worried that advertisements for food and snack products encouraged unhealthy eating. Fifty-three per cent of respondents thought there was too much sugar in the foods advertised to children, and 44 per cent of parents reported that advertising taught children bad eating habits. Nearly 50 per cent of parents commented that advertisers used marketing gimmicks to encourage children to buy the products. Thirty-seven per cent reported that advertising directed at children leads to family conflicts. Despite a low level of co-viewing and discussion of television commercials with children, Chinese parents believed that they had the greatest influence on their children's attitudes towards advertising, and 98 per cent said they exercised some control over the content and time of television viewing (Chan & McNeal, 2003).

Regulation of advertising to children in China

China's advertising industry grew at an unprecedented pace of over 10 per cent per year during 2003 to 2008. According to official statistics, advertising expenditures reached a record high of 189.96 billion yuan (around US$26.8 billion) in 2008 (China Advertising Association, 2009). The fast development of the advertising industry gave rise to a range of problems, such as exaggerating the efficacy of medicines and health foods, false advertising, inferior product quality, advertisements of low taste and sexually explicit content (Xinhua Economic News Service, 2008).

Advertising in China is mainly regulated by the government, and self-regulation plays a minor and marginal role (Guo, 2007). The primary government agency in charge of advertising regulation and administration has been the China State Administration of Industry and Commerce (2009). In the Chinese context, advertising regulation is a product of negotiation between the various economic, political, social and cultural forces (Guo, 2007). For example, the rigid Chinese political and communication system attempts to regulate advertising such that advertising will not erode the socialist ideology (Stross, 1990), but the complex advertising regulation system suffers from inefficiency, confusion, bureaucracy and corruption. This results in a state of flux that becomes almost unmanageable for advertisers and marketers (Guo, 2007).

In 2008, the State Administration of Commerce and Industry (SAIC) prosecuted over 51,000 illegal advertising cases with fines totalling 247 million yuan, or about US$35 million. Advertisements for medicine, medical services, foods and properties accounted for the biggest proportion of illegal advertising activities (China State Administration of Industry and Commerce, 2009). The ineffective enforcement of advertising laws can be attributed to the lack of compliance by local officials, insufficient manpower for monitoring of advertisements, lack of systematic pre-censorship mechanisms, and local protectionism (Guo, 2007).

Some advertisements to children and their parents have been accused of misleading children and promoting unhealthy lifestyles (Zhou, 2001). In fact, some products for children are hazardous to their health. For example, an herbal skin lotion for babies that was claimed to cure eczema and milk ringworm was alleged to contain a hormone that in excess dosages could cause bone damage (*Changjiang Daily*, 2008). According to the China Consumer Association, food advertisers have claimed that particular brands of biscuits can increase children's intelligence, that some health food can enable students to score full marks in examinations and that some shoes can enhance growth (Chan & McNeal, 2004a). Marketers have also designed sales gimmicks that

encourage children to consume certain products excessively to obtain a bonus or enter a contest (Luo, 2000).

The SAIC implemented the Interim Advertising Censorship Standards in 1993 which consisted of 16 articles and 125 sections. Article 5 of the Censorship Standard governs the regulation of children's advertising. Children's advertising is defined as the 'advertising of products to be used by children or advertising using children as models' (China State Administration for Industry and Commerce, 1993). According to the regulations, children's advertisements violate the censorship standard if they:

1. harm children's mental and physical health or moral standards;
2. induce children to put pressure on parents to buy the advertised products;
3. reduce children's respect for their elders or their respectful behaviour;
4. interrupt parents' or elders' education of their children;
5. instil in children a sense of superiority or inferiority from owning or not owning an advertised product;
6. use child models to demonstrate a product in a way that would exceed the performance of a typical child of that age;
7. show acts that children should not do alone;
8. cause children to act or behave badly;
9. deceive children by using descriptions beyond the judgement capacity of children;
10. use the names, identities or images of teachers, educators, writers of children's literature or child celebrities to endorse products (Chan & McNeal, 2004a).

The current advertising regulation system has been criticized as piecemeal and as responding reactively to what happens in the market (Lichtenstein, 2003; Peerenboom, 2002). For example, SAIC is now revising the Advertising Law to make celebrities responsible for the products they promote. If the products are later found to have harmed consumers' rights, the celebrities need to shoulder the penalty (*Beijing Evening News*, 2010). This move was a response to the recent trend of employing famous actors to promote fake medicines in advertisements. In 2009, the China Advertising Association criticized Hou Yaohua, a Beijing actor and talk-show host, for his appearance in ten television commercials for unregistered medicines and medical equipment (*China Daily*, 2009).

In 2008, SAIC asked its branch offices to monitor advertisements that borrowed the credibility of government offices or government institutions (*Beijing Commercial News*, 2008). In 2009, several television stations broadcast an advertising magazine programme called 'Exploring a Baby's Brain' that promoted a set of education material titled 'Revolution in Early Child Education'. The author, Professor Fung De-quan, claimed

that he was 'a consultant, exploring children's potential for the Education Department' or 'a senior consultant for a scientific education project at the Education Department'. The commercial claimed that the educational material had received an endorsement from the Education Department. But the Education Department issued a statement that the department had no relationship with the publication of the educational material and warned parents about being misled (Education Department, 2009).

Other current issues related to advertising regulation in China include websites selling illegal drugs, product placements in talk shows and television shopping programmes promoting shoddy products in rural provinces (*Xinhua Economic News*, 2010). The effort to deal with loopholes in existing advertising laws and the constant need for introducing new advertising regulatory measures makes advertising regulation difficult, especially in a new and growing economy.

Conclusions

This review of parental and public concerns of children's advertising and examination of the advertising regulation in China indicates that there is a long road to travel for China to develop a mature regulatory system that can provide sufficient protection for consumers' rights and meet international standards. Our review provides insights for public policy makers for enhancing the development of an advertising industry that meets the concerns of the general public, consumers and parents.

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Appendix 1

Data for the rural sample were collected in July to October 2002 in the counties of seven provinces of Gansu, Guangdong, Hebei, Jiangsu, Liaoning and Sichuan. Respondents were 1481 students aged 6–15 years in grades one through six from 15 schools. Forty-nine per cent were boys, and 51 per cent were girls. The mean age of the respondents was 10.3 years (SD = 2.0 years). A national Chinese market research company was hired to conduct the survey. Questionnaires were administered in classroom settings during normal class periods. All the schools were situated in counties with populations of less than 60,000. Researchers read out the questions and possible answers for grades one and two students, while older children in grades three through six filled in the questionnaires by themselves. All aspects of the research procedure were conducted in Chinese (Mandarin).

Data for the urban sample were collected from December 2001 to March 2002 in the three major cities of Beijing, Nanjing and Chengdu. Respondents were 1758 students aged 6–14 years in grades one through six from six schools. The mean age of the respondents was 9.6 years (SD = 1.8 years). Fifty-one per cent were boys and 49 per cent were girls. Local researchers were appointed to collect the data. The survey procedure was the same as that for the rural survey.

Questions and choice of answers

Q1. 'What are TV commercials?'

Answers not demonstrating an understanding:

some funny messages
some messages for us to take a break
introducing products
don't know

Answer demonstrating an understanding:

promoting products

Q2. 'What do commercials want you to do?'

Answers not demonstrating an understanding:

to see which commercial is good and which is poor
to check the products at stores
don't know

Answer demonstrating an understanding:

buy the products

tell parents about the products

Q3. 'Why do television stations broadcast commercials?'

Answers not demonstrating an understanding:

not to waste time

help the audience

care the public

don't know

Answer demonstrating an understanding:

subsidizes the television programmes

make money

7

Parents' Beliefs About, and Attitudes Towards, Marketing to Children

Caroline Oates, Nicki Newman & Athanasia Tziortzi

This chapter takes as a starting point the perspective of parents and their concerns about marketing to children. Using extant literature and contemporary cross-cultural data, parental attitudes towards marketing to children are examined. We focus on food as a central theme, as this is one of the most debated issues in marketing to children and one on which parents tend to have a definite opinion. The chapter is divided into four parts. First, we review parents' beliefs about advertising to children across several countries and discuss differences in focus and concern according to country. Second, we examine how children are marketed to: the different media that are used; the extent to which parents are aware of these, especially newer forms; and the effects of marketing on purchase requests and behaviour. Third, we consider notions of responsibility and regulation, looking at parental knowledge and requirements. Fourth, we discuss the implications of the shift in marketing communications from traditional channels to newer and integrated forms of promotion. Throughout the chapter, we will draw upon existing studies and our own research findings.

Parents' beliefs about advertising to children

Parental concerns about advertising to children are not new and have been reported in many countries (Gunter, Oates & Blades, 2005). Concerns tend to cluster around a number of issues, mainly the amount of advertising to which children are exposed, its nature or features, and advertising used to promote specific products which parents view as inappropriate. Parents have also expressed concerns about their children's ability to understand advertisements and what might be the

effects, for example, on behaviour. These issues are frequently discussed together: in our research with parents, the amount of 'junk food' advertising featuring licensed characters during children's UK television programmes was a recurring theme (Newman, 2010). Other researchers have also found that parents believed there was too much marketing targeted at children (Freedland, 2005), both in the UK and in other countries. Parents in New Zealand reported there were too many advertisements in general targeted towards children during their programmes, and more specifically there were too many advertisements for foods high in sugar and fat (Eagle, Bulmer, De Bruin & Kitchen, 2004; Young, De Bruin & Eagle, 2003). On similar lines, parents in Australia were found to have negative and critical views about food advertising on television; they thought advertisements were taking advantage of their children's naiveté and thought children under five years of age would believe the advertised messages literally (Ip, Mehta & Coveney, 2007). Some parents also objected to high-profile personalities being used to promote unhealthy foods (Ip et al., 2007). Similar results were found in China, where parents – particularly the parents of younger children – generally held negative attitudes towards advertising to children (Chan & McNeal, 2003). In the United States, Walsh, Laczniak and Carlson (1999) found that all 209 parents in their study expressed negative attitudes towards advertising to children.

Young et al. (2003) conducted survey research on parental attitudes towards advertising to children in the UK, Sweden and New Zealand. Parents in the UK and Sweden agreed that advertising made children pressure their parents to buy them the advertised products, that children were deceived by advertisements, that children were exposed to too much TV advertising, and that the more advertising children watched, the more they would want the advertised products. Results from New Zealand showed that parents were relatively neutral on issues such as whether advertised foods were an important cause of unhealthy eating habits. They were, however, concerned that television encouraged children to want products they did not need. Parents in all three cultures agreed that too many advertisements were directed at children during children's shows and that 'pester power' was a negative consequence of advertising to children. Similarly, parents in Belgium had negative views on advertising to children and were concerned about food advertising and its effects on children's eating habits (Dens, De Pelsmacker & Eagle, 2006; Dens, De Pelsmacker & Eagle, 2007). In Hong Kong, half of the parents who took part in a survey reported having a neutral attitude towards the statement that advertising takes undue

advantage of children; the other half were equally split between agree and disagree (Andersen, Tufle, Rasmussen & Chan, 2008). Rose, Bush and Kahle (1998) also found less negative attitudes amongst Japanese mothers compared with their US counterparts.

We compared the results of a questionnaire on parental attitudes towards advertising to children across three countries – Cyprus, Sweden and the UK (Tziortzi, 2009). Parents in all countries, 723 in total, showed their concern about advertising directed at children and agreed that children were deceived by advertisements more easily than adults and that children were exposed to too much advertising. Cypriot parents were specifically worried about the influence of food advertising on children's diets, a worry that was evident amongst parents in the UK. Swedish parents however were less concerned about food advertising, a finding which may reflect the relative lack of advertising on Swedish television compared with Cypriot and UK television at the time. The minor role parents in Sweden assigned to food advertising could also explain the significant difference found between Cyprus and Sweden and Cyprus and the UK for the statement 'If unhealthy foods were not advertised, children's eating habits would improve'. Cypriot parents agreed to a greater degree than parents from the UK and Sweden. A significant difference was also found between Cypriot and Swedish parents for the statement 'Advertising healthy products leads to good eating habits'. Swedish parents agreed less with the statement compared with Cypriot parents, who agreed to a higher degree. Another reason that may have led Swedish parents to assign a smaller role to advertising with regard to children's food preferences could be that they felt less pressure from their children than parents in Cyprus did. There was a significant difference between parents' responses to the statement 'Children usually demand food they have seen in TV advertisements', as Swedish parents agreed less with the statement compared with Cypriot parents. In general, Cypriot parents shared the same concerns as parents in the Young et al. (2003) study. In Cyprus, the UK and Sweden, the majority of parents agreed that pester power was a negative consequence of advertising to children. On the same lines, parents in the three countries also agreed that the more advertising children watch, the more they will want products advertised.

Our research focused on parents in the UK (Newman, 2010) has revealed a very unfavourable attitude towards advertising to children. The extent to which parents felt negative was evident from the language used in interviews, which included many strong and emotive words and phrases, such as 'exploitative', 'in your face', 'insidious', 'too powerful'

and 'excessive'. A common factor for these negative feelings was that the majority of the products marketed to children were perceived as junk or unhealthy food. However, it should be noted that our research took place just before the Ofcom changes came into force restricting 'high in fat, salt and/or sugar' (HFSS) products being advertised during children's programmes. A few parents held more neutral views and considered that the marketing of food to children was part of everyday life that should be allowed, but on the understanding that companies did not in any way exploit the target market. An interesting point from our research was that all responses from parents spontaneously referred to food companies' use of television advertising. Most of our respondents equated the term marketing with the term advertising, and specifically television advertising. This finding is not unusual – most of the studies reported in this chapter so far have focused their research on parents' attitudes towards television advertising, although there is a small amount of literature addressing other communications (see the following section).

In summary, the research on parents' beliefs about advertising to children illustrates that parents have concerns about the amount of television advertising to which their children are exposed, the nature of that advertising and the use of advertising to promote specific products. These concerns differ slightly across countries, but overall the research on parental attitudes towards marketing to children demonstrates that, generally, parents hold negative views, particularly if the marketed product is perceived as unethical in some way. In terms of *how* children are targeted by marketers, parents were uncertain, focusing mainly on television advertising. To some extent, this reflects the prominent place of this medium in marketing to children, despite other communications used by marketers, as discussed below. In the next section we examine how children are marketed to, the effects on purchase requests and behaviour, and parental awareness of such marketing.

How companies market to children

As pointed out above, television dominates marketing to children in most countries. While this has changed in the UK due to recent regulation (see below), countries such as Cyprus continue to allow food advertising during children's television programming. A content analysis based on AGB Cyprus data (Tziortzi, 2009) found that £8,161,111 was spent on television advertising directed at children during the period 1 January to 31 December 2003. This amount reflected the cost of 34,224 advertisements (for 180 products). The majority of advertisements,

72.3 per cent (24,746 insertions for 115 products), concerned food, of which 83.5 per cent (96 of 115 products) was HFSS. The spending on advertising such food products reached £5,700,383 (69.86 per cent of the total investment).

Many other countries demonstrate an advertising profile similar to that of Cyprus, with the majority of television advertisements featuring unhealthy products. This is a key point, as television advertising is often linked with children's requests to parents (Arnas, 2006; Stoneman & Brody, 1981) for foods (Brody, Stoneman, Lane & Sanders, 1981; Donkin, Neale & Tilston, 1993) and toys (Chamberlain, Wang & Robinson, 2006). In support of that link, research evidence suggests that children's requests for advertised products decline with reduced television exposure (Diabetes New Zealand Inc., 2003). Many studies have shown that purchase requests decline with age because of increase in cognitive understanding (Arnas, 2006; Isler, Popper & Ward, 1987; Jensen, 1995) whilst parents' agreements to requests increase with the child's age (Mackenzie, 2000). Such an observation raises the question of whether this decline is related to other factors besides cognitive development. For example, food is among the product categories that even young children can purchase on their own and often no request is needed. Requests for food products, therefore, might decline because children become more independent and can buy food on their own with increasing age.

Despite the evidence that television advertising has an influence on children's requests for products, a number of researchers have noted that other socialisation agents, such as peers and family, also play an important role in children's consumer behaviour, sometimes even stronger than advertising (Cram & Ng, 1999; Jensen, 1995). This raises the question of whether advertising functions as an influence over the other socialisation agents (e.g., parents and peers) who also are influenced by advertising messages (Cohen & Cahill, 1999). Such an assumption means, for example, that the acceptance of a request by a parent could have resulted from the parent's exposure to advertising (Brody et al., 1981).

In addition to television advertising, marketers target children using channels such as the Internet, promotions, tie-ins and through school. Fielder, Gardner, Nairn and Pitt (2007) talked to parents about their attitudes towards online advertising and found that compared with television advertising of food, parents' concerns were very low. Parents were, perhaps unsurprisingly, more worried about the safety of their children online and their contact with unsuitable advertisements, such

as those for gambling or with a sexual content (Fielder et al., 2007). With regard to fast-food promotions such as free toys and tie-ins to film and cartoon characters, mothers felt their children were being 'tantalised by clever promotional campaigns that effectively engaged their children and took advantage of their vulnerability' (Pettigrew & Roberts, 2006, p. 62). Most parents also felt the toys themselves were gimmicky trinkets of poor quality and first and foremost a marketing strategy to increase sales (Pettigrew & Roberts, 2006). Nevertheless, overall, mothers were in conflict about fast-food children's meals because they wanted to provide their children with healthy food but also give them an exciting experience and the same toy their peers had (Pettigrew & Roberts, 2006). Parents desire healthy food for their children but at the same time make concessions to their children's requests for less-healthy items (Levin & Levin, 2010).

In relation to in-school marketing, Watts (2004) found that less than a third of parents in her study were aware of businesses' involvement in their child's school. The only form of marketing most parents could spontaneously name was the voucher collection scheme, about which they were critical and sceptical as to whether their school even received the final benefit (Newman, 2010; Watts, 2004). However, overall, parents felt confident that the school management and teachers would not allow overt commercial activity in school. As a result, 80 per cent of the parents felt some commercial involvement was either very or quite acceptable, and only 6 per cent thought it was not acceptable at all (Watts, 2004). Appropriate involvement included work experience and sponsored educational activities, whereas advertising and branded vending machines were seen as unacceptable. Certain types of companies were also seen as unacceptable, such as firms associated with junk food or unhealthy eating, smoking, drinking or unethical behaviour (Watts, 2004).

Parents' views of the impact of marketing communications on children

Parents have identified several key factors that they believe exert influence over their children's responses to marketing messages. These include the particular medium (e.g., television, packaging, tie-in), peers, purchase situation, themes within the advertising, parents themselves and schools. Parents in Australia believed television advertising and peers are the predominant ways by which their children find out about new food products (Ip et al., 2007). Parents also believed television

advertising was the most powerful form of marketing communication and, along with their children's peers, had the most influence over their children's food preferences and desire (Ip et al., 2007; Kelly, Turner & McKenna, 2006; Pettigrew & Roberts, 2006). In addition, Ip et al. (2007) reported that by using premiums, particularly free toys, within an advertisement increased the impact. Similarly, parents in New Zealand agreed television advertising encouraged children to want products they did not need. However, parents viewed this influence as less important than that of their friends (Eagle et al., 2004).

In contrast to the above, mothers in Wilson and Wood's (2004) study believed their children were influenced more during shopping by packaging, taste and free gifts than by television advertising and their peers. Yet in Kelly et al.'s (2006) study, parents thought television advertisements were more influential than in-store promotions. Parents also believed that using themes of fun and happiness accompanied by visual impact increased product attractiveness to their children (Ip et al., 2007). Kelly et al. (2006) also suggested that parents found it difficult to decline their children's requests when a product was endorsed by celebrities or cartoon characters. Similarly, parents believed the toys which accompanied fast-food chains' children's meals were the primary source of attraction (Pettigrew & Roberts, 2006). Some parents reported the attraction of the toy would be the deciding factor on where to eat (Pettigrew & Roberts, 2006; Newman, 2010). Overall, parents have reported that all marketing of unhealthy foods has made it more difficult for them to encourage their children to eat a healthy diet (Powell & Longfield, 2005).

In Belgium, parents believed they had as much influence over their children as did television advertising (Dens et al., 2007). When asked how they made their family food choices, parents rarely mentioned food advertising; however, when asked specifically about their attitudes towards marketing of foods to children, they considered it was very influential in their children's food choices (Spencer, 2004). Along similar lines, some parents believed that whilst advertising had some influence over their children's food choices, other factors such as positive teaching by schools and parents helped to negate this (Eagle et al., 2004). Furthermore, parents in New Zealand believed schools had an important role in educating children on their food choices (Eagle et al., 2004). However, they noted that peer pressure and nearby 'unhealthy' retail locations could cancel out the positive elements (Eagle et al., 2004).

Although children may be increasingly attempting to influence their parents' food purchases, it is the parents who are the primary gatekeepers for their children's food intake by setting the rules on snacking and

determining what is for meals (Buijzen, Schuurman & Bomhof, 2008). Others believe that the 'right upbringing' – that is, knowing when and how to use the word 'no' – will reduce the impact of advertising (Barlovic, 2006, p. 28). Chapter 8 includes a discussion of strategies that parents adopt to reduce the impact of advertising on their children and how parents moderate their children's interpretation of advertising.

Effects on parent-child relationship

One of the critiques levelled at advertising to children is that of possible negative effects on the parent-child relationship (Gunter et al., 2005). This can take the form of pestering and might vary according to product type and age of child. Product requests are a problematic issue in advertising to children (Brown, 2004) because children ask for products for which they do not have the economic resources and must rely on their parents to acquire. Parents' unwillingness to agree to such requests can cause conflict in the family (Hoek & Laurence, 1993; Isler et al., 1987). Research by Young et al. (2003) showed that there is a consensus among parents in the UK, Sweden and New Zealand that advertising makes children pressure their parents and that pester power is a negative consequence of advertising to children. The choice of food is one of the most frequent areas in which children exert power over their parents (Center for Science in the Public Interest, 2003; Roberts, Blinkhorn & Duxbury, 2003). Research by Stoneman and Brody (1981) on the indirect impact of child-oriented advertisements on mother-child interactions, with a sample of six mothers and their children aged 3–5 years, provided evidence that in the short term, food advertising increased the intensity with which children pressured their parents during grocery shopping and intensified the mother-child conflict.

However, proponents of advertising have suggested that parent-child friction is normal (Brown, 2004; Mackenzie, 2000). Morales (2000) proposed that pestering or nagging reflects the interaction between parents and children and that it should not be considered negative behaviour. NOP Solutions (Food Advertising Unit, 1999) examined pester-power influences on parents. The study surveyed the attitudes of adults in Sweden, where television advertising to children under 12 is banned, and in Spain, where television advertising to children has been in existence for over 40 years. Out of all aspects of shopping that people disliked, both Spanish and Swedish adults ranked pestering as the least problematic and well below factors such as long queues, staff shortages and changing store displays. These results are also supported by Spungin's (2004)

research with 1530 parents across the UK, which showed that pester power is one of many factors that influence the choice of particular food, with nutritional value being the most important one. According to Young (2003), an important influence on these responses was the way the study was conducted. If parents were asked about an advertising topic directly – for example, whether they think advertising causes pestering – they were more likely to give answers with regard to advertising. However, if they were asked about influences during shopping, then pestering as a result of advertising was less likely to come up.

Responsibility and regulations

A number of organisations around the world, including the American Psychological Association, have called for more restrictions on advertising to children (Kunkel et al., 2004). This recommendation was based on a meta-analysis of research examining children's understanding of advertising. The desire to restrict advertising to children varies across countries and may be based on concerns about the age of children targeted, the media used, the amount of advertising to which children are exposed, the products advertised and the specific appeals/themes used. For example, parents in China supported a ban on advertising during children's programmes due to their concern over the influence of unhealthy food advertising on their children's diets (Chan & McNeal, 2003). Similarly, Dens et al. (2006) found parents in Belgium and New Zealand were concerned about the types of foods being advertised or expressed stronger negative views about advertising to children. Parents in both countries favoured increased legislation, as did those in the UK and Sweden (Young et al., 2003).

However, earlier studies in New Zealand found that whilst parents had some concerns over the influence of food advertising, they did not support a total ban on advertising, as they believed it was not the critical factor in influencing their children's eating habits (Eagle et al., 2004). Spungin (2004) found similar results in the UK, where parents believed their children were influenced by advertising but saw it as part of modern-day life; only 12 per cent wanted to see it banned. In Australia there was mixed support for a ban on food advertising on television, with some parents wishing to see a complete ban on all food advertisements during children's programmes whilst others believed industry pressure would stop this from happening (Ip et al., 2007). Some also felt no ban was necessary, as parents should be the ones in charge of their children's viewing habits and food intake (Ip et al., 2007).

Parental attitudes towards the regulation of marketing communications in Cyprus

As an illustration of the different regulatory issues parents are concerned about, our research in Cyprus suggested that parents generally want more regulation, identifying medium, age and advertised product as key factors (Tziortzi, 2009). Most of the 180 parents agreed that more regulation was needed, although whether they were aware of current levels of regulation is unclear, a point to which we return below. Parents showed a marked preference for regulation, stating that they would like to see stronger regulations regarding television advertising to children. Most parents also agreed that all advertising directed at children younger than age 12 should be banned. Parents also placed emphasis on protecting young children from advertising and agreed that advertising aimed at children who were too young to understand its purpose should also be banned. Table 7.1 shows the general tendency of parents to favour the enforcement of advertising regulation. Responses were measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree and for all the statements were significantly higher than the midpoint of the scale.

Cypriot parents' awareness of current regulations was hazy. Although all parents favoured the enforcement of more regulation on advertising to children, none of the parents we interviewed was actually aware of the current legislation in Cyprus, nor were any able to propose specific control measures that would complement existing legislation. The parents who had a little idea of regulation were only familiar with the existence of a regulation about the times of day that toy advertising was allowed on television and regulations about the basic rules relating to toy safety.

Table 7.1 Statements related to parents' advertising regulation preferences. Scores could range from 1 (strongly disagree) to 5 (strongly agree)

Statement	Mean
There should be a ban on advertising heavily sugared products aimed at children.	3.74
Advertisements aimed at children under the age of 12 should be banned.	3.63
Advertising aimed at children too young to understand the purpose of advertising should be banned.	3.84
Junk food advertising should be banned completely.	4.02
There should be health warnings on advertisements for sugared products.	4.66

In general, parents felt they were inadequately informed about the existing regulations on advertising to children and about the bodies responsible to enforce legislation. They believed they should be updated and made aware of anything relevant to advertising control, without specifying details about how they preferred this update to happen.

Parents' attitudes towards advertising in the UK

The findings from our research in Cyprus are partly echoed in our UK research, although the environments differ in the extent to which each country regulates advertising to children. In the UK, despite little consistency between the regulations and restrictions across different communications, there is a general agreement that all communications should be legal, decent, honest and truthful (Advertising Standards Authority, 2005). Further, when communicating to children, companies must also exclude material which could lead to mental, physical or moral harm and must not take advantage of a child's credulity, loyalty, vulnerability or lack of experience (Dresden, Barnard & Silkin, 2003). Specific regulations for the marketing of food and drink to children are listed in Table 7.2.

In the lead-up to media regulator Ofcom's changes in the UK (see Chapter 4), there were a number of reports of parental support for the restriction of unhealthy food advertising during children's programmes (Powell & Longfield, 2005). Over 80 per cent of parents taking part in a BBC survey and nearly 90 per cent of mothers in a Women's Institute survey supported the ban (Powell & Longfield, 2005), and a Which? survey found that 80 per cent of parents favoured increasing the current restrictions to include programmes that have large numbers of children watching (Which?, 2008).

One alternative to a complete ban that was put forward was to restrict food advertisements between certain hours, such as before and after school (7–9 a.m. and 3–6 p.m.) or until 8.30 p.m. (Ip et al., 2007; Moodie, Swinburn, Richardson & Somaini, 2006). Other suggestions put forward by parents have included more stringent enforcement of current advertising restrictions, an improvement in the types of food advertised to include more healthy options such as fruit, and the creation of more health-related policies designed to improve children's food and lifestyle choices (Ip et al., 2007; Moodie et al., 2006). Parents also thought advertisers should use techniques to advertise healthy foods that are similar to what they use to advertise unhealthy food to make the former more appealing to children (Ip et al., 2007; Samson, 2005). Certainly, UK

Table 7.2 Recent UK regulations for the marketing of food and drink to children

Communication	Type	Details
Television advertising	Timing restrictions	No HFSS product advertisements around children's (under 16) designated programmes.
		No HFSS product advertisements around programmes with the 20% higher children than adult audience.
	Content restrictions	Advertisements for HFSS products cannot encourage poor nutritional habits or an unhealthy lifestyle.
		Advertisements should not encourage excessive consumption, replacing meals with snacking or eating before bedtime. Advertisements should not encourage pestering or the feeling of inferiority or let-down if they do not have the product.
	Banned	No use of licensed characters or celebrities popular with children in advertisements for HFSS products targeted at preschool or primary-school children.
		No use of promotional offers in advertisements for HFSS products targeted at pre-school or primary-school children.
		Sponsorship by HFSS products of children's television programmes.
Non-broadcast advertising (including online 3rd party, paid-for-search listings, in-game, viral advertising and advergames that include display adverts)	Content restrictions	Advertisements cannot encourage poor nutritional habits or an unhealthy lifestyle.
		Advertisements should not encourage excessive consumption, replacing meals with snacking or eating before bedtime.
		Advertisements should not encourage pestering or the feeling of inferiority or let-down if they do not have the product.
		No use of licensed characters or celebrities popular with children in food advertisements, apart from fruit and vegetables targeted at pre-school or primary-school children.
		No use of promotional offers in advertisements for food products apart from fruit and vegetables targeted at pre-school or primary-school children.

(*continued*)

Table 7.2 (continued)

Sales promotions (including those online)	Content restrictions	Should not encourage excessive consumption. Should not encourage children to eat or drink just to take advantage of a current promotion. For collection promotions they should not encourage children or parents to buy excessive quantities of food.
Direct marketing (incl. emails, texting)		Nothing specific for food and drink targeted at children.
Sponsorship		Nothing specific for food and drink targeted at children.
Product placement		Restriction from children's programmes and for HFSS foods.
Websites		Nothing specific for food and drink targeted at children.
In school		Nothing specific for food and drink targeted at children.
Packaging		Nothing specific for food and drink targeted at children.
In-store promotions		Nothing specific for food and drink targeted at children.

Soruce: (Derived from: Bradshaw, 2010; Committee of Advertising Practice, 2010a; Committee of Advertising Practice, 2010b).

television channels aimed specifically at children have included little advertising for healthier products (Oates & Newman, 2010). In addition to restrictions to television advertising, parents strongly supported the removal of school vending machines selling carbonated drinks, confectionary and salty snacks (Powell & Longfield, 2005). In a BBC survey, 80 per cent of parents wanted the removal of these types of vending machines (BBC News, 2004).

As Table 7.2 shows, there has been little regulation beyond what covers traditional advertising. Even within the advertising restrictions, there is nothing to prevent specific brands being advertised so long as they do not include any products seen as high in fat, salt or sugar. Further, whilst companies cannot use licensed characters or sales promotions in their advertisements for HFSS products, there is nothing to prevent including them on the packaging or undertaking the sales promotions themselves.

However, when the restrictions for product placement on domestic television programmes were lifted at the end of 2010, restrictions remained on children's programmes and on HFSS products (Brown, 2010). This concentration on advertising, specifically television advertising, has left many of the other forms of communications, especially the 'newer' forms, subject to little or no regulation and usable an alternative path for food companies (Hawkes, 2004; Nipper, 2006).

In addition to the formal regulations, there are also a number of voluntary codes that companies may follow, such as the International Chamber of Commerce code, the International Code of Advertising Practice, the European Code of the Confederation of the Food and Drink Industry, the UK Food and Drink Health Manifesto and, finally, individual company codes (Watts, 2007).

Our research with UK parents (Newman, 2010) highlighted a lack of awareness of current regulations around marketing to children – as also found in Cyprus. We asked parents in the UK what they knew about the regulations covering the different forms of marketing communications, whether they were aware of the debate that was taking place at the time of the interviews (including the proposed changes to regulating food marketing) and, finally, what changes they would ideally like to see to marketing in general and food marketing to children. Like the parents in Cyprus, there was some uncertainty around who designed and enforced regulations and to what extent communications were restricted.

Awareness of regulation amongst UK parents

Generally, parents had very little awareness of the regulations companies should be following when marketing to children. More than three-quarters of them admitted to having little awareness of regulations in place or their nature. Even the remaining parents, whilst assuming there was something in place, were unaware of the specific details. Only one parent attempted to name, although incorrectly, any of the agencies potentially responsible for ensuring children are protected. Despite their lack of knowledge about advertising regulations, many parents expressed strong negative feelings when asked about their attitudes towards companies that market to children. As previously mentioned, our research took place during the UK Government's 'Choosing Health' initiative and the corresponding review of food marketing to children by the Food and Drink Advertising and Promotions Forum. Although none of the parents were aware of the Government's white paper, the majority of them had heard of some of its projects. The initiative that

all the parents were aware of was the change to school dinners that had been led in the media by a celebrity chef, Jamie Oliver. Although most of the parents were unaware of the initiative's origins, all had witnessed the changes, mostly positive, to their children's school dinners.

More than three-quarters of the parents were aware of the changes to be made to the advertising of unhealthy foods around children's television programmes. Although these parents knew there were to be changes, very little detail was known. The most common understanding of the changes was that food companies would no longer to able to advertise unhealthy food to children. However, there was some confusion over whether there was to be a 9 p.m. watershed (i.e., a time after which food could be advertised) and what was to be classified as 'junk,' or unhealthy, food. The general impression gained from speaking to parents was that the details were unimportant compared with stopping the advertising of unhealthy food.

There was a mix of responses when the parents in our UK study were asked which communications, if any, should not be allowed when targeting children. Their responses ranged from none to all of them. Those parents who believed no further restrictions should be put on food companies' marketing activities were interviewed before the media coverage of the changes had begun. There were a number of rationales for their responses. Some parents tended to think that regulating the industry further would not make any difference as the companies would just find alternative ways around the regulation. Other parents were unconcerned, believing the impact and influence of food advertising on their children was minimal. At the other end of the spectrum, many parents wanted to see all food marketing communications to children banned.

Overall, the communication that parents wanted to see restricted in some form was television advertising. This was the most common communication that children came into contact with and had the highest impact on them, according to parents. It was also the communication which all families talked about when asked generally about the subject of food marketing to children. Again there was a mix of responses, from wishing to see all advertising banned around children's programmes to just the advertising of unhealthy foods. Even when concentrating on unhealthy-food advertisements, there were differences in opinions, from wanting them banned in their entirety, banned before a 9 p.m. watershed, banned around children's designated programmes to finally just reduced in number. However, this view was not common to all parents, and some parents thought the overall impact of television advertising on what their children ate was at best minimal and as such

were unconcerned about it. The second communication about which parents felt strongly was in-school communications. All parents firmly believed no companies should be able to target their children whilst they were at school. A few parents also wanted to see children's speciality food, tie-ins with television, film and cartoon characters, and free gifts banned. These communications were regarded as less intrusive, possibly because they were more under the parents' control and could be avoided – for example, by not taking the children to the supermarket. Some parents wanted to see these types of communications banned altogether, and others preferred to see them restricted for the promotion of unhealthy foods only. The other communications that parents felt should be restricted in some form were the use of toys, sponsorship and product placement, again with regard to promoting unhealthy food in particular. Notably, parents' assessments of what constituted unhealthy food were inconsistent.

The shift in marketing communications

The individual means of communicating to children and what parents think about these have been discussed in this chapter, and the emphasis so far, reflecting both the research and the marketing spend, has been on television advertising. But the media and regulatory environments are changing, and marketers are now taking a more integrated approach to their communications. Far from relying on a single medium to reach the child audience, campaigns now utilise a number of different communications, such as advertising, sales promotions and tie-ins. However, current research does not reflect this marketing development. Only a few reports have widened their remit to include other communications such as packaging, in-school promotions, use of tie-ins and sponsorship (e.g., Federal Trade Commission, 2008; Institute of Medicine, 2006). Whilst these reports considered a substantial number of communications being used by food companies, neither report offered new insights and both based their evidence solely on television advertising research.

The Federal Trade Commission (2008, p. ES4) found promotional campaigns targeted at the youth market (2–17 years old) were more likely to be integrated with 'themes encountered in television ads carried over to package materials, promotional displays in stores or restaurants, and the Internet'. Films such as *Superman Returns* and *Pirates of the Caribbean: Dead Man's Chest* were used to endorse a wide range of food and drink. However, these promotions were part of wider integrated campaigns by these companies, with both films also appearing

in television and cinema advertisements, on the Internet via websites and advergames, on packaging, sales promotions such as competitions and free gifts and in-store displays for their respective products (Federal Trade Commission, 2008).

The Institute of Medicine (2006, p. 34) found that 'businesses are increasingly using integrated marketing strategies to ensure that young consumers are exposed to messages that will stimulate demand, build brand loyalty, and encourage potential and existing customers to purchase new products. A variety of measured media channels (e.g., television, radio, magazines, Internet) and unmeasured media channels (e.g., product placement, video games, advergames, in-store promotions, special events) and other venues (e.g., schools) are used to deliver promotional messages to young consumers.' They also noted that 'industry and marketing sources suggest that food and beverage companies and restaurants have been progressively reducing their television advertising budgets, reinvesting in other communication channels, and using integrated marketing strategies to reach consumers more effectively' (Institute of Medicine, 2006, p. 166).

The Federal Trade Commission (2008) found tie-ins with television and film characters were more frequently part of a larger promotional campaign and as a result featured heavily in the television advertising of those campaigns and on company websites. Occasionally, the products were also featured in the programme itself (product placement); for example, one company's carbonated drinks products were shown during *One Tree Hill* (an American teen drama) in addition to the tie-in being shown in television advertisements, in-store promotions, on packaging and on the Internet (Federal Trade Commission, 2008). However, in today's media environment, it is more usual for the Internet to act as the central organising platform for any integrated communications plan as it allows synergies to be created among the different brand-building programmes (Aaker, 2002, cited in Moore & Rideout, 2007). In the UK, product placement is not permitted during children's programmes or for HFSS products, but of course children watch more than the programmes specifically made for them. Ofcom found that of the top 20 programmes watched by 4- to 15-year-olds in 2009, only one was a designated children's programme (Ofcom, 2010).

In summary, the variety of communications currently being used to target children is wide, as pointed out by McNeal (2007). He referred to this as 'surround selling' that operates on a 24/7/360 basis, being all the time (24/7) and all around us (360°). He made the connection with the academic term *integrated marketing communications*, and some now see

integrated campaigns as the 'marketplace norm', resulting in marketing activities intruding pervasively into everyone's everyday life (Friestad & Wright, 2005).

The number of food companies using integrated campaigns has grown over the past decade as they look to foster brand building and influence food choices (Weber, Story & Harnack, 2006). When messages are sent as part of an integrated marketing communications plan, they are potentially more likely to be better recalled and more persuasive due to their appearance in multiple communication vehicles (Livingstone & Helsper, 2006; Moore & Rideout, 2007). In addition, it is thought that with children using a range of media simultaneously, the effects of those communications are potentially much more significant (Marshall, O'Donohoe & Kline, 2006). By using multiple platforms, companies are capitalising on the specific advantages of each communication channel (Moore, 2004) and complicating children's ability to evade messages (Livingstone, 2005), as well as parents' ability to monitor exposure to media content.

One theme that has run through this chapter is the dominance of television advertising. As a result, little has been written on how parents understand, or are affected by, other communications. In addition, by only considering individual communications, we have little idea how the introduction of integrated campaigns impacts these issues. There may be some agreement amongst researchers as to when children understand the persuasive intent of television advertising (about 7 or 8 years of age), but at what age do they understand the persuasive intent of sponsorship or product placement? The age when they understand such new aspects of marketing may be different, and probably older (see, for example, Chapter 11). Taking this a step further, at what age do children understand the persuasive intent of an integrated campaign? And how much marketing to their children do parents actually recognise? We know from our own and others' research that parents focus primarily on television as an advertising medium and struggle to identify integrated campaigns that target their children. In the light of new digital technologies, and McNeal's (2007) world of constant marketing, it might be time to start asking different questions of both parents and children.

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8
The Family's Role in Children's Interpretation of Advertising

Moniek Buijzen

Family communication is often considered the most effective tool in the management of advertising influence on children. The family context not only influences how children use the media and the messages they get from them, but also how literate they become as media users. In this chapter, I discuss how parents manage their children's interpretation of advertising. The chapter includes four sections. First, I discuss how parents engage in discussions with their children about advertising and more general consumer matters. Second, I discuss a typology of different communication strategies used by parents and caretakers. Third, there will be a discussion of the effectiveness of the various communication strategies and how that varies by different family and child characteristics. Finally, the chapter will address the implications of child-directed marketing in new media and its implications for future research and public policy.

Parent-child communication about advertising and consumer matters

Parents and caretakers are usually the first to experience inconvenience as a result of child-directed advertising. Parental concern and criticism about advertising focus mostly on its presumed unethical or deceptive nature and on its undesired effects (Bakir & Vitell, 2009; Feldman, Wolf & Warmouth, 1977; Hite & Eck, 1987; Hudson, Hudson & Peloza, 2008). On the one hand, many parents are concerned that children lack the cognitive skills to understand the nature and intent of advertising and therefore believe that advertising is, inherently, misleading and unfair. Some parents even believe it is unethical to treat children as a consumer

market at all. This concern particularly pertains to non-traditional forms of advertising, including branded websites and product placement in movies and games (see Chapter 10). The commercial intent of these new advertising practices is often less transparent than the intent of traditional advertising such as television commercials (Owen, Lewis, Auty & Buijzen, 2013). A survey among 450 parents in the UK and Canada demonstrated that over half of the parents felt that placement of unhealthy products in movies was deceptive (Hudson et al., 2008).

On the other hand, many parents are concerned about the possibly harmful effects of advertising on children, including materialistic orientations, unhealthy eating habits and excessive purchase request behaviour. Indeed, research evidence for these effects is rather convincing. For instance, children who are more often exposed to television advertising have been shown to hold stronger materialistic orientations. They attach more importance to money and possessions and believe that those possessions can help one achieve other values, such as friendship, status and happiness. A materialistic life orientation is a cause for concern, because it has been shown to be related to decreased life satisfaction (for reviews, see Buijzen & Valkenburg, 2003; Gunter, Oates & Blades, 2005; McGinnis, Gootman & Kraak, 2006; Wright & Larsen, 1993).

In addition, over the past few years there has been growing concern about the role of advertising in the increasing prevalence of overweight and obese children. Critics hold advertising responsible for the problem of childhood obesity because of its abundant promotion of unhealthy foods and beverages, that is, products containing relatively high proportions of fat, sugar and salt (McGinnis et al., 2006). A preference for advertised products can therefore have undesired health consequences for children. Several studies have shown that exposure to food advertising can lead to less-healthy dietary patterns. For example, in a household-diary study among 234 parents of children aged 4 to 12, we compared children's media use with their consumption behaviour (Buijzen, Schuurman & Bomhof, 2008). Our findings showed that children's exposure to food advertising was associated with their consumption of energy-dense advertised brands and product categories.

A final concern of parents regarding child-directed advertising pertains to the 'nag factor,' that is, children's advertising-induced request behaviour. One of the most important intended effects that advertisers wish to achieve with their messages is to stimulate children to ask their parents for the advertised products. Because children usually do not have the financial means to purchase products themselves, advertisers are most interested in the influence they exert on their parents'

purchases. Several studies have shown that exposure to advertising may lead to increased purchase-request behaviour. Requests for advertised products may be made at home, for instance, while children are watching television advertising or putting together their Christmas wish list, but also in a retail environment, such as the supermarket or toy store (Buijzen & Valkenburg, 2008). Because parents naturally do not want to comply with all these product requests, they have to say 'no' to their children more often. As a result, the chance of conflicts between the parent and child increases (Buijzen & Valkenburg, 2003).

To investigate how parents and children interact about children's purchase requests, we conducted a quantitative observation study in a naturalistic retail environment (Buijzen & Valkenburg, 2008). During six months, a team of investigators visited dozens of supermarkets and toy stores in different parts of the Netherlands and observed 269 parents and children (between 0 and 12 years of age). The observers followed the parent-child dyad during the entire store visit, from entering the store to passing through the checkout counter, writing down all behaviours and interactions as they occurred during the store visit. The observers paid particular attention to how children tried to persuade their parents to purchase products and how parents reacted to those influence attempts. While the parents and children were packing their purchases, the observer approached them, informed them about the observation of their store visit and asked for consent to use the observational data. Additionally, the observer asked the parent to fill out a questionnaire tapping a number of background variables.

The observations showed that, even at a very young age, children exert considerable influence on their parents. And child-directed marketing does not miss its target. We asked parents about their children's television viewing behaviour in the questionnaire and compared this to the number of purchase requests made by the child during the store visit. Children who watched more commercial television more often asked their parents for products, particularly for heavily advertised brands, such as Haribo, Lay's and Danone. In one-third of the cases, the product request resulted in a purchase. The children used a wide variety of persuasion strategies to convince their parents. Toddlers and preschoolers used simple and non-verbal strategies, including staring and pointing at products or grabbing them from the shelves. Older children used more sophisticated techniques by politely asking for products and providing arguments why they needed them. Not surprisingly, the success rate was highest among the older children; more than half of their requests resulted in purchase of the product.

Children may be successful negotiators, but parents are not helpless victims of the nag factor. Just like their offspring, parents and caretakers use an extensive armoury of negotiation techniques (Holden, 1983; Palan & Wilkes, 1997). In the short conversation after the observation, many parents told us that before entering the store, they had made an agreement with their child about which products they could choose. Also, during the store visit, most parents used effective strategies to deal with difficult requests, including diverting attention and offering alternatives. Most parents also knew how to deal with more coercive influence attempts made by their children, such as forceful or persistent influence behaviour. With postponing the purchase, putting the product back or simply ignoring the request, most parents knew how to avoid child tantrums and other embarrassing situations.

Advertising and consumer-related parental communication strategies

Aside from direct responses to children's advertising-induced purchase requests, parents have a range of communication tools at their disposal to counter the unethical nature and undesired consequences of advertising. These tools may pertain specifically to advertising or to more general consumer matters and behaviours. To understand how various strategies can be effective in moderating children's responses to advertising, it is first necessary to understand how children process advertising and develop defences against it.

Children's defences against advertising

It is generally assumed that younger children are more susceptible to the effects of advertising than are older children and adults because young children lack the skills, knowledge and experience to critically evaluate advertising (cf. Kunkel et al., 2004). In the course of childhood, children acquire important advertising and consumer-related abilities, knowledge and experience, which help them defend themselves against commercial persuasion attempts. Those consumer skills, or 'defences', may involve an understanding of the nature and intent of advertising, critical consumer behaviour, and awareness and knowledge of a healthy lifestyle. As they mature, children progressively develop insights into the nature of advertising and learn that advertising messages are intended to sell and to persuade (Gunter et al., 2005; Martin, 1997; Rozendaal, Buijzen & Valkenburg, 2010).

The most important changes in advertising and consumer skills take place between infancy and early adolescence. Based on theories of consumer development and more general frameworks of children's cognitive, social and personality development, four phases in the development of children's advertising and consumer skills can be distinguished: early childhood (younger than 5 years old), middle childhood (6 to 9 years), late childhood (10 to 12 years) and adolescence (13 years and older). Within each phase, children accumulate advertising and consumer-related skills and experiences. It is generally assumed that by the age of 16, these skills have reached adult-like levels (John, 1999; Valkenburg & Cantor, 2001).

Up until the age of 5, children view advertising primarily as entertainment and are generally unaware of its persuasive intent. They have a limited ability to take a perspective other than their own, which inhibits their understanding of advertisers' intentions. By about 5 years of age, they can make a distinction between commercials and television programmes (see Chapter 11), but this is mostly based on perceptual differences, not differences in intent (Ali, Blades, Oates & Blumberg, 2009). In addition, children in early childhood lack the necessary information-processing abilities (i.e., explicit memory storage and retrieval) and market-related experience to use and apply advertising defences (John, 1999).

As children enter middle childhood, important changes take place in the development of advertising defences. Children become increasingly capable of perspective taking and contingent thought and develop a basic understanding of advertising's selling intent. In addition, they become able to evaluate products and brands on more than one dimension. These increased abilities may result in more critical processing of advertising. However, as their information-processing skills are not yet fully developed, early elementary schoolchildren are unlikely to spontaneously apply their persuasion knowledge as a defence during exposure to advertising (Buijzen, 2007). Finally, children in this phase have been shown to be easily swayed by attractive advertising elements, such as favourite television characters, premiums and physical aspects of product packaging (Buijzen, 2007; Calvert, 2008; John, 1999).

During late childhood, children's cognitive and social abilities continue to evolve. Children become capable of abstract thought and reasoning and are able to see things within a broader perspective. They acquire the abilities and experience to process advertisements on a more elaborate level (see Chapter 3). They are able to evaluate advertising systematically and critically and to come to consumer decisions by

carefully evaluating different aspects of advertised products and brands. In addition, on account of a growing financial independence and autonomy in making those consumer decisions, they are also more motivated to process messages critically. However, whilst they possess the abilities and motivations required for adult-like processing, children in this age group still require prompts or cues to activate advertising defences (John, 1999; Rozendaal, Buijzen & Valkenburg, 2009). Further, as peer influence becomes more important, late elementary schoolchildren become increasingly sensitive to symbolic values in advertising, such as peer popularity and status appeal.

Finally, in adolescence, children's advertising defences reach adult-like levels, and they become capable of processing advertising at a critical level (Pechmann, Levine, Loughlin & Leslie, 2005). Due to the development of hypothetical-deductive reasoning skills, they become more critical and sceptical towards the surrounding world, including the commercial environment. However, despite these more mature cognitive skills, they are still in the midst of identity development, which may have important implications for the processing of advertising. In the early stages of identity development, self-presentation and conformity to the peer group or subculture are extremely important. In combination with a high degree of self-consciousness and social anxiety, this may result in a greater susceptibility to consumer symbolism, such as brand-related social status, image and physical attractiveness.

Aside from these advertising-related defences, it is also important that children acquire more general consumer-related skills, such as marketplace experience, insights into the value of money, and awareness and knowledge of a healthy lifestyle. The development of both advertising and consumer-related skills importantly occurs within the family context; in most families, children and parents often watch television, have dinner and visit the supermarket together. To stimulate their children's advertising defences, parents and caretakers have various communication tools at their disposal, some of which may be more effective than others.

A typology of parental communication strategies

Parents and caretakers have a wide range of communication strategies they can use to increase children's defences against advertising effects. These strategies can be grouped into a 2 x 2 typology, which is based on the literature of parental mediation of children's responses to the media (e.g., Austin, 2001; Valkenburg, Krcmar, Peeters & Marseille, 1999) and more general family communication patterns (Carlson & Grossbart,

1988; Koerner & Fitzpatrick, 2006; Moschis, 1985). I will first define the various types of strategies and then discuss the empirical evidence for their success in countering undesired advertising effects.

Importantly, parental communication strategies can be grouped according to the *object* of the communication and the *style* of communication (Buijzen, 2009). First, parental communication strategies may apply either to the advertising messages or to the consumer-related attitudes and behaviours of the child (e.g., materialistic orientations, purchase requests, consumption behaviour). Second, parental communication strategies can have a control-oriented communication style, which is aimed at rule making, conformity and obedience, or a conversation-oriented communication style, which emphasizes open and critical family discussion. Generally, a control-oriented style is aimed at protecting the child from undesired and possibly harmful external influences, while a conversation-oriented style is aimed at increasing the child's defences against those influences.

Taken together, the various communication objects and styles result in four types of parental communication strategies: (1) control-oriented advertising communication (i.e., shielding children from advertising), (2) conversation-oriented advertising communication (i.e., explaining and instructing about the nature and intent of advertising), (3) control-oriented consumer communication (i.e., indicating rules and restrictions regarding consumer attitudes and behaviours) and (4) conversation-oriented consumer communication (i.e., explaining and instructing about consumer skills). Table 8.1 depicts an overview of the various strategies, as well as their definitions and some examples.

The first strategy in Table 8.1, the control-oriented advertising communication strategy, involves sheltering children from advertising by reducing their exposure to it – for instance, by restricting children's viewing of commercial television networks. In the adult mediation literature, this type of strategy has also been labelled 'restrictive mediation' (Buijzen & Valkenburg, 2005). The second strategy, the conversation-oriented advertising strategy, or 'active mediation', includes making deliberate comments and judgements about advertising and actively explaining its nature and selling intent. The conversation-oriented strategy may involve factual or evaluative comments about the advertising messages. In addition, parental comments may be negatively framed (i.e., involving parental countering of the advertising message) but can also be positively framed (involving parental reinforcement of the advertising message) (Austin, Fujioka, Bolls & Engelbertson, 1999; Fujioka & Austin, 2003).

Table 8.1 A typology of parental communication strategies

	Style of communication	
Object of communication	**Control-oriented style**	**Conversation-oriented style**
Advertising message (e.g., commercial)	1 Control-oriented advertising communication strategy • Shielding children from advertising • E.g., rules and restrictions regarding television and computer use • Only effective among young children	2 Conversation-oriented advertising communication strategy • Explaining and instructing about the nature and intent of advertising • E.g., commenting on commercials while watching television together • Necessary and effective, especially among older children
Consumer behaviour (e.g., request & consumption behaviour)	3 Control-oriented consumer communication strategy • Indicating rules and restrictions regarding consumer behaviour • E.g., rules and restrictions regarding snacking • Effective for food consumption, but should be accompanied by explanation of motivations	4 Conversation-oriented consumer communication strategy • Explaining and instructing about consumer skills • E.g., comparing and evaluating products while shopping together • Necessary and effective

In previous research on parental mediation of children's media responses, an additional type of strategy has been distinguished, social co-viewing, which involves the parent watching television together with the child (Valkenburg et al., 1999). Because findings from earlier studies suggest that this type of mediation is only effective when it is intentional and accompanied by parental comments, it can be considered as conversation-oriented advertising communication in the current typology. Further, some parents use both types of advertising-related strategies, trying to shelter their children from advertising, yet at the same time explaining the intent of advertising and clarifying their motivations for the restrictions.

Third, a control-oriented consumer communication strategy may involve rule-making and restrictions regarding children's consumer attitudes and behaviour, including their purchase requests and consumption behaviour. Parents may, for example, have strict rules regarding their children's consumption of sweets, savoury snacks and sugared soft drinks. Fourth, a conversation-oriented consumer communication strategy emphasizes children's individual ideas and opinions and is aimed at increasing consumption autonomy. Parents using this strategy engage in active consumer education, focusing on the development of the child as a critical consumer (Carlson & Grossbart, 1988; Moschis, 1985). They may teach their children, for example, to compare and evaluate products. These families centre on open discussion between parents and children and value children's input and opinions when making family consumer decisions. Finally, similar to advertising-related strategies, parents can also use a combined consumer communication style, applying certain rules and restrictions regarding consumer matters, yet also explaining the motivations behind these rules.

The effectiveness of parental communication in moderating children's interpretation of advertising

In past years, we have conducted several studies investigating and comparing the role of the various parental communication strategies. Our findings rather consistently show that conversation-oriented communication strategies are more successful in affecting children's interpretation of advertising than are control-oriented strategies. Most Western societies have become increasingly commercialized, and exposure to commercial messages is almost impossible to avoid. It is, therefore, important that children learn how to cope with those commercial temptations. However, conversation-oriented strategies are not always most successful in reducing advertising effects. Specifically, the effectiveness of the strategies may depend on the age of the child and the type of effect that needs to be reduced.

For parents who are concerned that advertising is misleading and misuses the special vulnerability of children, the conversation-oriented advertising communication style may be an effective tool. As indicated above, from the age of 6, children become progressively able to distinguish between editorial and commercial content and learn to understand that it is an advertiser or toy manufacturer that depicts products as better than they really are. The development of those insights can be stimulated by parental explanations about the nature and intent of

advertising – for instance, by commenting on commercials while watching television together (Buijzen, 2007). It is important to note that, due to young children's limited information-processing skills, commenting while viewing may be more effective than more general parental instructions. For the youngest children, comments that relate directly to the advertisement may be more concrete and easier to understand. For older children, who still have difficulty retrieving and applying persuasion knowledge independently, the comments may serve as a cue to activate their advertising defences.

To counter undesired advertising-induced product desires or purchase-request behaviour, conversation-oriented advertising communication can also be a successful strategy, but not for all children. In an experiment among 272 children 5 to 9 years old, we investigated the effectiveness of advertising-related comments administered during children's exposure to commercials (Buijzen & Mens, 2007). Children were assigned to one of four conditions and received different types of comments while they were watching a compilation of six commercials for toys. The first group of children received factual comments about the commercials, including facts about the persuasive and selling intent of the commercials. The second group of children received evaluative comments involving negative evaluations of the commercials and the products advertised. The third group received a combination of factual and negative evaluative comments, while the fourth group just watched the commercials without any comments.

After viewing the commercials, the children completed a questionnaire measuring several effects of the commercials, including product liking and purchase requests. Our findings showed that the combined comments were most effective in reducing these effects. Children who had heard both a factual explanation and a negative evaluation were less positive about the advertised toys and showed lower intentions to ask their parents to purchase them. However, this effect did not hold for the youngest children. Among the 5- and 6-year-olds, none of the comments was effective in reducing the effects of the commercials. A possible explanation is that these children had not yet developed the necessary information-processing skills to process and apply the comments as a defence against the persuasive influence. These findings support the idea that reducing young children's exposure may sometimes be the only effective way to counteract negative effects of advertising (Robinson, Saphir, Kraemer, Varady & Haydel, 2001).

Liking and requesting advertised products are relatively direct and short-term effects of advertising. Yet longer-term advertising effects, such as materialistic orientations, can also be countered by parental

communication strategies. Several of our studies have demonstrated that in families characterized by conversation-oriented communication styles, applying both to advertising and more general consumer matters, children are less receptive to the impact of advertising on materialism than in low-conversation-oriented and control-oriented families (Buijzen & Valkenburg, 2005). In general, control-oriented advertising communication is the least effective strategy. A possible explanation is that in reality these policies do not lead to sufficient reductions in children's advertising exposure. As argued above, in our consumer society it is often unfeasible to avoid having children exposed to advertising. However, this may not hold for children in early and middle childhood, whose media use is more heavily influenced by parents. In one study, we therefore systematically compared the effectiveness of the various strategies among younger and older children.

The effectiveness of parental communication in reducing the impact of food advertising

In the household-diary study described earlier in this chapter, we investigated the effectiveness of the four parental communication strategies in reducing the relationship between food advertising and children's consumption behaviour. As indicated above, exposure to food advertising was associated with children's consumption of energy-dense foods and beverages. Children who had seen the most commercials had a 25 per cent increased chance of having an unhealthy diet. The observed association between food advertising and consumption of unhealthy products turned out to be highly contingent upon the use of various parental communication strategies.

When comparing the success of the different communication strategies, we found again that conversation-oriented strategies, particularly those related to advertising, were most successful in reducing the effect of advertising on children's consumption of unhealthy products (Buijzen, 2009). The relationship between advertising exposure and energy-dense food consumption disappeared for children whose parents actively discussed the nature and intent of advertising.

In addition, however, this study yielded more insights regarding control-oriented communication styles among younger children. To test the assumption that restrictive mediation could be successful among young children, we also compared the success of the various strategies in different age groups. Our results confirmed that among the younger children in the sample (< 8 years), control-oriented advertising communication was successful in reducing the impact of advertising.

Parental attempts to restrict their children's exposure to advertising may be more successful among young children, because parents still have control over their media exposure. Parental influence on children's television-viewing behaviour diminishes as children grow older, for instance because they watch television in their bedroom more often.

So far, these results were in line with earlier findings and assumptions. However, in contrast with previous findings, control-oriented communication about consumption was also quite successful in reducing the impact of advertising. An explanation might be that when it comes to children's food-consumption patterns, the family context plays a particularly important role (Kremers et al., 2006). Although children exert increasing influence on family purchases, parents are still the primary gatekeepers for children's food intake. In general, they are the ones controlling financial expenditures and making the final purchase decision in the retail environment (Mangleburg, 1990). In addition, most parents can control access to food at home – for instance, by family rules on snacking and by determining what's for dinner (Cullen et al., 2001). In our study, control-oriented consumer communication strategies may have prevented children from gratifying advertising-induced desires.

It has to be noted that the success of control-oriented communication might be a short-term one. It is conceivable that in the long term, children benefit more from a conversation-oriented strategy. Earlier studies have shown that strict parental-control practices diminish children's self-control in eating (Fisher & Birch, 1999). With increasing age, children obtain more autonomy in their consumption choices. Children with control-oriented parents may lack the nutrition-related knowledge to deal with that autonomy when they grow up because their parents failed to explain the motivation behind their restrictions. Although speculative, this does suggest that the results for control-oriented communication should be interpreted with caution. It is plausible that socio-oriented communication is more effective, in the short term as well as the long term, when parents explain why they implement certain rules and restrictions. Overall, more research is needed to investigate the interaction between the various parental communication strategies, and particularly between control- and conversation-oriented strategy styles.

Variations in the uses and effects of parental communication strategies

The uses and effects of the various communication styles may depend on a number of factors, including child- as well as family-related

characteristics. For example, studies into more general television-related family communication patterns have shown that parents of younger children and boys are more likely to engage in communication about television than parents of older children and girls (Abelman & Pettey, 1989; Buijzen, Rozendaal, Moorman & Tanis, 2008; Valkenburg et al., 1999). In addition, parents of intellectually gifted children (i.e., with high IQ) are more likely to engage in conversation-oriented communication, while parents of children with average IQ engage more in control-oriented communication styles (Abelman & Pettey, 1989). Mothers and highly educated parents are generally more likely to engage in television and consumer communication than are fathers and parents with relatively low education. Further, parental concerns about the negative effects of television have been shown to be among the most important determinants of television- and consumer-related communication (Carlson & Grossbart, 1988).

Importantly, the level of parent-child agreement in reporting parental communication activities plays an important role in the success of the communication efforts. In a survey among 360 Dutch parent-child dyads (children aged 8 to 12 years), we found that the effectiveness of parent-reported advertising-related communication was greatest when parents and children displayed high agreement in reporting parental communication activities (Buijzen, Rozendaal et al., 2008). These findings can be explained by theories of family communication and child development, which assume that (a) child reports indicate children's perception of parental communication activities (Ritchie & Fitzpatrick, 1990) and (b) the effectiveness of parental communication efforts is based on the children's accurate perception of the parental message (Fujioka & Austin, 2003; Grusec & Goodnow, 1994). Thus, our findings suggest that parental communication is more effective when children accurately perceive their parents' communication activities.

In turn, children's awareness and perceptions of parental communication activities may also depend on a number of parent and child-related factors. Family communication theories assume that child perceptions of parental communication relate more closely to parent reports among parent-child dyads with a higher level of mutual understanding. This understanding may depend on general communication styles, the child's age and the child's gender. First, general family communication patterns may affect the extent to which parents engage in certain communication styles. It has been found that in families characterized by an overt communication style (i.e., favouring the open exchange of information among family members), parents are more likely to engage in

media and consumer-related discussions with their children (Buijzen & Valkenburg, 2005; Fujioka & Austin, 2002; Grusec & Goodnow, 1994; Warren, Gerke & Kelly, 2002). In addition, it has been suggested that an open communication environment may be essential in obtaining a child's awareness and acceptance of a parent's intended interpretation of media messages. Highly communication-oriented parents put more effort into explaining their actions and intentions, which is likely to result in a higher level of parent-child agreement in reporting these actions (Koerner & Fitzpatrick, 2006).

Second, family communication researchers have also observed age-related differences in parent-child agreement on family interaction. Due to increasing cognitive and social abilities, older children should be better able to recognize and comprehend parental messages than younger children are. Accordingly, earlier mediation research has suggested that young children may lack the socio-cognitive and information-processing skills to perceive and process parental mediation activities, whereas older children are progressively able to do so. Thus, if children's ability to understand family interactions increases with age, then the correspondence between parent and child reports should be higher for older than for younger children (Grusec & Goodnow, 1994; Meadowcroft, 1986; Nathanson, 2004; Ritchie & Fitzpatrick, 1990). This might be an additional explanation why communication-oriented strategies are less effective among younger children than among older children.

Third, parents' behaviour toward daughters sometimes differs from behaviour toward sons (Cowan & Avants, 1988; Desmond, Hirsch, Singer & Singer, 1987; Van den Bulck & Van den Bergh, 2000). Parents generally put greater emphasis on the autonomy of boys, whereas they focus more on protectiveness, restriction and supervision of girls. Moreover, even when boys and girls receive similar patterns of guidance, they perceive and react differently to it. In particular, girls have been shown to react more to informational cues administered by their parents, whereas boys are influenced more by power assertions (Ely, Gleason & McCabe, 1996; Gunter & McAleer, 1997). Thus, girls are likely to be more receptive to conversation-oriented communication strategies, and boys more to control-oriented strategies.

Implications of advertising in new media for future research and public policy

Thus far, most studies investigating the family's role in children's interpretation of advertising have focused on traditional television advertising

(i.e., discrete advertisements of standard lengths that appear at predictable intervals in program breaks). Until recently, this focus of interest was justifiable, given that most child-directed advertising expenditures focused on television advertising, and television viewing was children's predominant leisure-time activity (Beentjes, Koolstra, Marseille & Van der Voort, 2001). However, since the turn of the new millennium, dramatic changes have taken place in children's media environment. Advertisers targeting the youth market have rapidly adopted new media technologies including branded websites, online message systems, social networking sites and brand placement in popular computer games (see Chapter 12). These new advertising practices are fundamentally different from traditional advertising and have important consequences for the uses and effects of parental communication strategies.

First, children's ways of using new media differs considerably from the use of traditional media. Importantly, children are more likely to consume digital media in their own private domain, away from the supervision of parents. Parallel with the rapid increase of Internet access and mobile media, more and more children have their own cell phone, computer and game console. This enables them to use instant-messaging services, social-networking sites and gaming websites in their bedroom or at school (Rideout, Foehr & Roberts, 2009). As a result, parents may be less aware of the media content their children are confronted with, including its commercial content. Moreover, there is less immediate cause for parents to talk with their children about the various advertising practices they encounter. And even when the computer or game console is situated in a common family environment, such as the living room, children and parents are less likely to use the medium together than as is the case with television.

Second, compared with traditional advertising, new advertising practices are often more embedded in program or editorial content, resulting in blurring boundaries between advertising, entertainment and information. In fact, integration between the persuasive message and its context is one of the defining characteristics of the current commercialized media environment (Ali et al., 2009; Kim, Pasadeos & Barban, 2001; Nebenzahl & Jaffe, 1998; Yang & Roskos-Ewoldsen, 2007). As a result, children have greater difficulty recognizing the nature and intent of new advertising practices, particularly the more embedded forms (see Chapter 10; Owen et al., 2013). Crucially, for adults, these more embedded forms of advertising are also more difficult to recognize. In the survey investigating English and Canadian parents' perspective on product placement in children's films, mentioned at the beginning of this chapter, nearly

one-third of the parents were unaware that advertisers were paying to place products in programming (Hudson et al., 2008). Evidently, parents who do not recognize the nature and intent of a commercial practice are not able to moderate their children's responses to it, making advertising-related communication highly unlikely.

Third, it has been argued that current advertising practices, particularly those aimed at children, rely heavily on implicit processing mechanisms, due to their increased focus on emotion- and entertainment-based strategies rather than information and rational argumentation (Buijzen, Van Reijmersdal & Owen, 2010; Livingstone & Helsper, 2006; Nairn & Fine, 2008). This type of advertising processing relies on associative and affect-based learning mechanisms, such as evaluative conditioning, affect transfer and preconscious emotional associations (Chartrand, 2005; De Houwer, Thomas & Baeyens, 2001; Dijksterhuis, Smith, Van Baaren & Wigboldus, 2005). Exposure to a brand name or logo leads to more fluent processing when the brand is encountered again. This facilitated processing fluency leads to a sense of familiarity which may, in turn, be misconstrued as a beneficial quality, resulting in positive affect toward the brand (Jacoby, Kelley & Dywan, 1989; Janiszewski, 1993). For example, the positive affect associated with entertaining advergames becomes transferred to the brand outside conscious awareness. This type of processing could have important implications for conversation-based parental communication strategies. After all, rational and fact-based comments are not likely to reach their target when positive emotions and associations underlie the persuasion process.

In sum, new advertising practices might have important implications regarding the extent to which parents engage in advertising-related communication activities, as well as the accuracy and effectiveness of their communication strategies. It is conceivable that, compared with traditional advertising, consumer-oriented and evaluative advertising-related strategies will be relatively more important for advertising in new media. Of course, these predictions remain speculative. There is a need for empirical research on the uses and effects of various communication strategies regarding children's interpretation of new advertising practices. Moreover, there is also a need for research investigating whether and how parents can be stimulated to engage in advertising and consumer-related communication. The current knowledge is heavily based on cross-sectional designs. To find out whether parents who are less likely to engage in communication activities can be stimulated to communicate more often and in more effective ways with their children, there is a great need for longitudinal and (semi-) experimental designs.

Taking this reservation into account, the current developments in children's commercial media environment may have several important societal and public policy implications. First, there is a great need for advertising and consumer education for adults. In recent years, several countries, such as the UK, Canada and the Netherlands, have introduced school-based media- and consumer-education programmes. In view of the important role of the family in children's interpretation of advertising, media- and consumer-training programmes should also incorporate parent-directed materials. These could focus, for instance, on raising parental awareness on advertising, critical consumer skills and a healthy lifestyle. The advantage would be twofold. Not only would it be an effective way of increasing children's defences against advertising, parents would also receive some support in their battle against commercialism. Even though most Western countries have protective policies concerning child-directed advertising, most responsibility is still shouldered by the parents.

It is important to emphasize that parents and caretakers should not be considered as the only effective instrument to counter harmful advertising effects. First, the literature suggests that parental communication efforts are not effective for all children. Specifically, children under the age of 6 years may benefit more from advertising restrictions. In addition, it would be unwise to invest in the empowerment of children and parents while the commercial pressure is increasing and advertisers keep developing more sophisticated methods to reach the child consumer. It cannot be denied that many of the advertised products are just too attractive to resist and that some advertising techniques, especially the more embedded forms, are difficult to recognize and grasp – for adults as well as children. It is, therefore, of utmost importance to warrant a fair and healthy media environment for children and their families.

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9

Linkages Between Media Literacy and Children's and Adolescents' Susceptibility to Advertising

Fran C. Blumberg, Jessica M. Williams & Brian Kelley

Introduction

The prevalence of media use among children and adolescents clearly demonstrates its prominence in their daily routines, which, as we will discuss below, increases their exposure to advertisements. Surveys in the United States suggest that 8- through 18-year-olds spend on average 10–11 hours per day with some form of media for leisure and academic purposes (Rideout, Foehr & Roberts, 2010). This time frame, which represents more than half of their waking hours, represents an increase from 2005 estimates of children's and adolescents' media use (Roberts, Foehr & Rideout, 2005). For example, children's and adolescents' recreational computer use increased from 1 hour and 2 minutes per day in 2004 to 1 hour and 29 minutes in 2009. Overall, increases in media use have been attributed to children's and adolescents' engagement with new forms of media, such as the Internet, as well as more traditional forms, such as television (Roberts & Foehr, 2008).

The conception of concurrent media use has been referred to by researchers and practitioners as "media multitasking" (Rideout et al., 2010). Among adolescents, this multitasking is most likely to involve alternating between e-mailing, instant messaging, and searching websites (Foehr, 2006). For example, Foehr (2006) suggested that e-mailing is the activity most likely to be "media multitasked" by adolescents. Similarly, Lenhart, Madden, and Hitlin (2005) reported that adolescents' viewing of websites was frequently paired with instant messaging, given that half the instant messages they received contained a link to a website or article. Further evidence of media multitasking was cited by

Valkenburg and Peter (2007), who reported that 20 percent of adolescents in the United States and the Netherlands had used audio or video media while using instant messaging. In fact, according to Foehr (2006), the "pop-up" nature of instant messaging allows for concurrent use with digital media-based activity as these messages interrupt activity. Clearly, findings indicate that children and adolescents are using many forms of media. This usage is supported by ready access. For example, approximately 79 percent of US 5- to 16-year-olds have a television in their bedroom. Further, 25 percent of this same age group has access to the Internet at home (ChildWise, 2008). According to Fielder, Donovan, and Ouschan (2009) and Buckleitner (2008), Internet entertainment may comprise the most frequent media activity in which children and adolescents are involved when online. Notably, this form of entertainment, arguably motivated by the desire to stay socially connected with peers, is largely driven by commercial interests. For example, Fielder et al.'s (2009) content analysis of children's websites showed that 73 percent of the advertising was integrated with the entertainment content. Notably, this integration involved covert and stealth marketing techniques—that is, advertisements presented without clear labeling or distinct placement on a given web page. Such techniques (see Kaikati & Kaikati, 2004), as will be discussed below, typically involve viral marketing (Kirby & Marsden, 2006), celebrity endorsement (Gunter, Oates & Blades, 2005), product placement on social networking sites (Freeman & Chapman, 2010), and advergames (Dahl, Eagle & Baez, 2006).

With increased and concurrent media use among children and adolescents (Roberts & Foehr, 2008), one key concern is this population's vulnerability to advertisement messages, as facilitated through these marketing techniques. Concerns about vulnerability are fueled by findings demonstrating that in 2004, for example, about $12 billion were spent on child- and adolescent-targeted advertisements (Kunkel et al., 2004). This investment jumped dramatically in 2006, when food and beverage marketers alone spent approximately $10 billion to promote products to children and adolescents (Stitt & Kunkel, 2008). A review of food advertising during children's television programming revealed approximately 23 advertisements per hour were shown during 2007, eight or more of which were marketing food or beverage products (Kunkel, McKinley & Stitt, 2008). In general, the impact of food advertising on pre-adult media users is a critical concern in the United States and United Kingdom (see Chapter 4).

Widespread fears about the psychological implications of the commercialization of childhood via television advertising and in schools

have resulted in the formation of high-profile committees such as the American Psychological Association's Task Force on Advertising and Children (Kunkel et al., 2004). This group found a substantial relationship between exposure to advertisements for candy and sugared cereals and the rates of childhood obesity, suggesting that greater exposure to advertisements marketing non-nutritious food exerted a negative and cumulative effect on children's and adolescents' eating habits. Concerns about the vulnerability of children in the face of extensive advertising also has fueled the mission of watchdog groups such as the Campaign for Commercial-Free Childhood, which is dedicated to lobbying for greater US regulation of advertising to children. The morality of advertising to cognitively defenseless children also has been raised within the advertising community by prominent advertisers such as Alex Bogusky, whose clients included the fast-food chain Burger King (O'Leary, 2010).

The larger question that remains is just how vulnerable children and adolescents are to the marketing strategies used to positively predispose them toward a given product based on their cognitive abilities at a given point in time, and curricular efforts to which they may be exposed to educate them about advertising intent and tactics (Livingstone & Helsper, 2006; Rozendaal, Buijzen & Valkenburg, 2010). This question specifically bears on the construct of advertising literacy (see Young, 2003), or the ability to distinguish advertisements from, in the case of television, program content and to recognize the underlying persuasive and selling intent of the advertiser. This construct has its foundation in the broader ranging concept of media literacy—defined as "the ability to access, analyze, evaluate, and create messages across a variety of contexts" (Christ & Potter, 1998, p.7)—which has clearly emerged as a contemporary educational goal in the UK (Buckingham, 2003) and the United States (Hobbs & Frost, 2003).

We consider this goal and its success within the United States in our discussion below, with initial consideration of what it is that children and adolescents understand about the advertising they see and the techniques that advertisers use to craft their messages to them.

What do children and adolescents understand about advertising?

To date, theoretical accounts for the development of children's understanding of advertising intent have been based in one of two major frameworks: Piaget's stage model of cognitive development and the

information processing model (see Oates, Blades & Gunter, 2002, for more detailed discussion of these frameworks). In the former approach, children's understanding of advertising is seen as progressing through a series of chronologically tagged and distinct stages based largely in the periods of early and middle childhood. As adapted by John (1999), children's understanding of advertising during the ages of 3–8 progresses through a perceptual stage in which limited understanding of advertising and its intent is shown. During the analytical stage, which corresponds to the ages of 7–11, children are seen as cognizant of the intent of advertising, albeit unaware that the messages they present could be false or biased. The reflective stage corresponds to the ages of 11–16, during which children show greater appreciation for the intent of advertising and the accompanying use of exaggeration or false claims to persuade consumers. It is further assumed that by age 12 years, children's cognitive advertising competencies are fully developed and comparable to that of adults (Livingstone & Helsper, 2006; Valkenburg & Cantor, 2001).

Accounts for the developmental trajectory of children's understanding of advertising have adhered to more of an information-processing framework, in which children's understanding of advertising is linked to their ability to encode and retrieve advertised content, as further linked to cognitive processes such as attention and self-regulation of behavior (McAlister & Cornwell, 2010; Moses & Baldwin, 2005). This framework is seen as offering a more practical vehicle for examining individual differences in children's advertising knowledge. Another cognitive ability that has been examined with regard to understanding of advertising is that of theory of mind (Moses & Baldwin, 2005; Oates et al., 2001). This construct refers to the understanding that individuals have differing perspectives that guide their behavior. Thus, children's understanding of advertising intent would presumably correspond with their ability to appreciate advertisers' goal to persuade them to purchase their products. As the sophistication of one's theory of mind progresses during adolescence, the ability to further appreciate advertisers' intent to change consumers' attitudes toward a given product should become increasingly apparent (Moses & Baldwin, 2005).

Research within and across stage-based and information-processing-based approaches have yielded equivocal findings about when children are presumed cognizant of advertisements and their persuasive intent. This situation is seen as an artifact of how children's understanding of advertisement is assessed (use of verbal or nonverbal measures) and construed (how advertising knowledge is defined) (Gunter et al., 2005; Moses

& Baldwin, 2005; Owen, Auty, Lewis & Berridge, 2007; Young, 2003; and see Chapter 2). An oft-cited contention is that children can distinguish between television programs, for example, and televised advertisements between 3 and 5 years of age (Butter, Popovich, Stackhouse & Garner, 1981; Oates et al., 2002, and see Chapter 11) and show burgeoning understanding of the persuasive intent of advertising between 7 and 10 years of age (John, 1999; Livingstone & Helsper, 2006; Gunter et al., 2005; Young, 2003). However, some researchers contend that young children may have greater implicit understanding of advertising and its goals than can be effectively articulated, given their limited language capabilities (Moses & Baldwin, 2005; Owen et al., 2007; Young, 2003). In one investigation of this potential competence-performance disparity (see Moses & Baldwin, 2005), Owen et al. (2007) presented their 7- and 10-year-old participants with pictorial cues meant to potentially augment their verbal characterizations of why advertisements are used. These cues comprised four cartoon drawings, each depicting a distinct advertising goal (e.g., "Ads tell us all about new products"). The authors' findings showed that 7-year-olds in particular demonstrated marked improvement in their understanding of the persuasive intent of advertising, albeit with less sophistication than the 10-year-olds, when prompted with the pictorial representations. These findings conformed to those obtained by Bijmolt, Claassen, and Brus (1998), who reported that 90 percent of their 5- through 8-year-old participants could distinguish the transition between a television program and a commercial and indicate some understanding of advertising intent when nonverbal prompts were used. Both sets of findings, however, contrast with those of other researchers—for example, Oates et al. (2001), who found that only 36 percent of their 10-year-old and 25 percent of their 8-year-old participants could identify the goal of an advertisement after exposure.

Rozendaal et al. (2010) examined 8- to 12-year-old children's ability to recognize advertising and their understanding of both selling and persuasive intent compared with adults. In their study, children and adults viewed a commercial or program fragment and answered follow-up questions measuring advertisement recognition and both selling and persuasive intent. Results suggested that the youngest participants in the study, those aged 8 and 9, showed the ability to recognize advertising, but less so than the 11- and 12-year-olds whose ability was comparable to that of the adult participants. The latter age group also showed significantly greater knowledge of selling and persuasive intent than all age groups represented among the child participants. Developmental differences were found as 11- and 12-year-olds showed significantly greater

understanding of persuasive intent than the younger age groups. However, even 8- and 9-year-olds showed some understanding of selling and persuasive intent, although the former's understanding exceeded the latter's. As the authors concluded, this disparity may reflect the greater cognitive sophistication entailed in understanding that advertisers wish to change one's mind about a product (Moses & Baldwin, 2005).

As several authors in this volume indicate, the point at which children understand advertising and its intent to persuade them to buy a product may be equivocal with respect to specific age. However, also as indicated, that understanding, even during adolescence, may be manipulated by the marketing techniques used by advertisers, to which we now turn our attention.

Marketing strategies

Advertisements marketing products to children and adolescents frequently employ production techniques such as animation, fantasy, voice-overs, fast action, and music to capture and maintain viewers' attention and interest (Maher, Hu & Kolbe, 2006; Schneider, 1987; Van Evra, 1998). These techniques, or formal features, as they have been referred to by Calvert (2008), are those used to captivate children's and adolescents' attention on the television screen in general. Enhanced attention, in turn, facilitates greater recall of product information and potentially greater viewer satisfaction with the product (Maher et al., 2006; Oates, Blades, Gunter & Don, 2003; Warren et al., 2008). The techniques used to engage attention may be so captivating that viewers with limited understanding of marketing techniques, such as young children, may be unaware that their attention has been manipulated to present a favorable view of a product (Oates et al., 2003; Warren et al., 2008).

According to Calvert (2008), the advent of online advertising, including so-called stealth marketing techniques "such as embedding products in the program content in films, online, and in video games" (p. 205), may enhance the vulnerability of children and adolescents to advertising content. With concurrent media use on the rise among 8- through 18-year-olds (Roberts & Foehr, 2008), the younger population are particularly vulnerable given their minimal working knowledge of persuasive and selling intent, as well as their inability to distinguish entertainment content from that relevant to the product advertised. In fact, Oates, Blades, and Gunter (2002) found that less than 40 percent each of 8- and 10-year-old children were able to identify the persuasive goal of advertisements.

Online stealth marketing, in general, includes product placements, advergames, banner ads, and integrated marketing pages (Alvy & Calvert, 2008; Montgomery, 2001; see Chapter 12). According to Kaikati and Kaikati (2004), stealth marketing has also been implicated in viral campaigns whereby advertising content is promoted via word of mouth among peers. As in the case of television advertising, online marketers use diverse techniques to attract children's attention and increase their desire for a specific product, making them more likely to purchase that product or urge others to do so. Online stealth techniques include visual features such as animation, repetition of content (e.g., in different locations of a web page), branded characters, and celebrity endorsements (Alvy & Calvert, 2008; Calvert, 2008).

Digital marketers are increasingly tailoring their advertising campaigns toward children and adolescents (Montgomery, 2007), particularly in the consumer-product domains of apparel, food, and entertainment (Brown & Washton, 2007; Montgomery & Chester, 2009). These campaigns entail penetrating social networks such as Facebook and embedding products within video games, online videos, and virtual worlds, enabling marketers to remain in constant contact with their consumers (Alvy & Calvert, 2008; Montgomery & Chester, 2009).

According to Montgomery and Chester (2009), marketing to adolescents (noted above as media multitaskers) often relies on seven major strategies: ubiquitous connectivity, personalization, peer-to-peer networking, engagement, advergames, immersion, and content creation (Montgomery & Chester, 2009). *Ubiquitous connectivity* means adolescents having constant access to digital media. For instance, many food, beverage, and fast-food restaurant companies have utilized Internet-enabled cell phones for mobile marketing via text messaging, electronic coupons, and mobile social networking, all of which are designed to promote long-term relationships with a given brand (Montgomery & Chester, 2009; Chester & Montgomery, 2007). Consequently, media multitaskers are able to access a given brand (or two) via various media forms simultaneously. Repeated exposure to a given brand, its product, and its advertisements cultivates the long-term relationship desired by the marketer.

Additionally, marketers consider the needs of product users and adjust media messages (or site preferences) to best meet the needs of each of their target customer groups. This customization is facilitated by capturing and reusing consumers' preferences and behaviors, based on their individual responses to advertising messages. According to Calvert (2008), marketers' awareness of who is visiting their sites and how they are doing so assists in assessing the efficacy of a given marketing

approach. *Personalization* refers to the tailoring of media experiences to meet individual buyer interests, such as customizing a play list on an MP3 player or creating a personal profile on a social networking site (Montgomery & Chester, 2009). For instance, during 2007, Coca-Cola partnered with Facebook to advertise via "social ads" referred to as "Sprite Sips," in which users were able to create, alter, and interact with an animated "Sprite Sips" character. Users were also able to download "social ad" applications to their personal profile pages, embedding advertisements into personal content and promoting products to other viewers (Montgomery & Chester, 2009). Similarly, in 1996, the free e-mail service Hotmail grew rapidly as each e-mail sent had an automatic message attached that stated, "Get your private, free e-mail from Hotmail at http://www.hotmail.com," in addition to the sender's implied recommendation as an already active Hotmail e-mail subscriber (Kaikati & Kaikati, 2004). This strategy is also illustrative of *peer-to-peer networking*, which refers to a consumer's active participation in the marketing process through word of mouth, viral marketing, or instant messaging (Hughes, 2005; Montgomery, 2007; Montgomery & Chester, 2009). This approach is particularly effective with children and adolescents through the use of discounts, attractive product design, and product giveaways (Calvert, 2008).

Engagement refers to the interactive nature of digital media advertising and suggests that adolescents are the most connected marketing demographic through such media forms as social networking, blogs, and text messaging (Montgomery & Chester, 2009; Urista, Dong & Day, 2008). During 2009, 13- to 18-year-olds, on average, used social networking websites for 22 minutes per day and used Internet games 17 minutes per day (Rideout et al., 2010). Calvert (2008) suggested that one of the most popular websites for children is Candystand.com, which features an interactive game, or advergame, called Fruit Stripe Photo Safari, allowing players to take photos of wildlife while viewing embedded advertisements for Fruit Stripe gum.

Immersion refers to the integration of marketing techniques such as product placement in multimedia applications, including interactive advergames, three-dimensional worlds, and social networking sites (Montgomery & Chester, 2009; Shields, 2006). A well-known social networking site, Youtube.com, allows media users to create and contribute content to its website. Users upload, view, discuss, and collaborate, forming a "network of creative practice" (Burgess & Green, 2009, p. 25).

A widely used immersion strategy for reaching the adolescent market and younger is that of advergames (see Chapter 12). According to

Mallinckrodt and Mizerski (2007), these games are essentially branded entertainment featuring advertising messages, logos, and trade characters in an interactive, electronic game format. In an analysis of 5- through 8-year-old children who were exposed to advergames promoting Froot Loops cereal, 72 percent of participants reported the intention to request Froot Loops cereal, whereas 47 percent of participants reported the intention to eat Froot Loops cereal. After game play, 7- and 8-year-olds displayed an understanding of persuasive intent, and all advergame players showed a preference for Froot Loops over other cereals. They also preferred Froot Loops over healthier food options (Mallinckrodt & Mizerski, 2007). These findings differ from those of Oates et al. (2002), who found that 8- and 10-year-old children were unable to identify the goal of advertisements. Whether interactive advergame play facilitates children's understanding of the goals of advertising over more passive forms of product promotion, as found in print or on television, remains a potent question.

Lee, Choi, Quilliam, and Cole (2009) also identified several goals of advergames, including entertainment, persuasion, and education. Advergames aimed at children are integrated into websites to entertain users, thus increasing the amount of time users spend online and are subsequently exposed to product content and brand messages. In a content analysis of advergames promoting food products to children, Lee et al. (2009) reported that 88 percent of advergames promoted a company's brand, while 67 percent made appeals for interactive play with food products. More specifically, food brands were used as tools, equipment, or primary objects that children were striving to attain or collect in order to earn points to move to a higher level of the game. Also, the most frequently advertised food categories in advergames included candy, gum, cereals, soft drinks, and salty snacks.

Similarly, in a content analysis of four popular children's websites, Alvy and Calvert (2008) found that Candystand.com featured interactive advergames promoting LifeSavers candies. All four websites examined included food marketing, specifically food high in calories and low in nutritional value such as candy, cereal, fast-food restaurants, chips, and sweet snacks. Marketing techniques used on children's websites were similar to those used in television advertising, including visual, formal features; branded characters; and repetition. In fact, researchers suggested online marketing may be more effective than traditional marketing due to children's difficulty in distinguishing entertainment content from advertisements (Alvy & Calvert, 2008; Auty & Lewis, 2004;

see Chapter 11). Online marketing or, as pertinent to Candystand.com, advergames also have the ability to capture and hold a child's attention without a predefined limit on the amount of time, as many such online advertisements are interactive and embedded in child-directed content.

Content creation refers to content generated by the media user. For instance, marketers have encouraged consumers to produce commercials for preferred brands and submit them to online contests (Montgomery & Chester, 2009). For example, an article in *The New York Times* (Elliott, 2010) cited the success of consumer-created television commercials for a diverse range of products aired during a 2009 major US sporting event. According to Montgomery and Chester (2009), consumers participating in these contests are referred to as "brand advocates." Arguably, these advocates include "digital natives," the appellation given those individuals who have grown up in a digital-media-saturated environment.

A consistent goal across all strategies noted above is sustained contact with a given brand and/or product content through diverse media venues. This goal is served by the media multitasking that characterizes the behavior of US children and adolescents (Rideout et al., 2010). Sustained contact with various forms of media simultaneously could, in turn, facilitate or enhance product preference and potentially intention to purchase. A key task then becomes the development of appropriate educational interventions or curriculum to prompt children's and adolescents' awareness of the prevalence of marketing strategies embedded in their daily media use. Within the US school setting, this awareness is frequently included as part of a language arts, social studies, and fine and performing arts curriculum (Hobbs & Frost, 2003) and is referred to as media literacy, a construct that serves as the basis for our discussion below.

The potential impact of media literacy education on children's and adolescents' vulnerability to advertising

Media literacy, as noted earlier, is generally characterized as encompassing the ability to effectively analyze and use diverse forms of media (Brown, 1998). Integral to this analysis is an understanding of the cultural nuances and stereotypes that underlie the content and messages presented within these forms (Messaris, 1998; Heiligman & Shields, 2005). According to Kunkel (2010), a critical component of media literacy instruction for children and adolescents entails highlighting the inherent bias in persuasive media messages presented via advertising. In

fact, Kunkel contends that investigations of children's and adolescents' understanding of advertising goals should routinely include assessments of perceived bias in advertising messages.

Given the sophistication of marketing strategies discussed above, media literacy instruction has been touted as a potent inoculation against susceptibility to persuasive advertising messages (Bergstrom, Neighbors & Malheim, 2009; Dittmar, 2009; Fuller, Damico & Rodgers, 2004; Eagle, 2007; Edens & McCormick, 2000; Hobbs, Broder, Pope & Rowe, 2006; Hobbs & Jensen, 2009; Kline, Stewart & Murphy, 2006; Primack & Hobbs, 2009). Notably, this form of instruction is not yet standard in US curricula and, when included, is often linked to a language arts curriculum (Hobbs & Frost, 2003). Regardless of the curriculum in which the content may be packaged, the efficacy of media literacy instruction among its intended audience may be compromised by several factors. One such factor concerns the lack of definitive understanding of developmental differences in children's perception of advertising bias (Kunkel, 2010) and interpretation of advertising messages more generally (Livingstone & Helsper, 2006; Nairn & Fine, 2008; and see Chapter 3). These issues are apparent in the discussions of the developmental trajectory of children's understanding of advertising presented earlier in this chapter.

Another compromising factor pertains to the support that parents may provide for media literacy education (Eagle, 2007; Livingstone & Helsper, 2006; Mendoza, 2009; and see Chapter 8). Unlike support for other forms of literacy, such as reading and writing, parents may not have access to the requisite resources, including physical time, to help their children critically examine advertisements. In fact, parents may resort to less-time-consuming options to regulate their children's consumption of and access to media, such as the V-Chip or Internet blockers (Mendoza, 2009). However, the success of these parent-initiated regulatory efforts may hinge on parents' own awareness of how to interpret and analyze media messages and how to engage their children in discussion about these messages, as media use is likely to be more prevalent at home than in school (Buckingham, 2003; Hobbs & Jensen, 2009).

A further concern is the lack of a clear conceptual framework for examining media literacy as applied to advertising, which has been referred to as "commercial media literacy" (Eagle, 2007) and "advertising literacy" (Buckingham, 2003; Hobbs & Frost, 2003; Malmelin, 2010). According to Malmelin (2010), there are dimensions of advertising literacy that do not overlap with those of media literacy. Malmelin characterizes advertising literacy as comprising four distinct literacy dimensions: informational,

visual/aesthetic, rhetorical, and promotional. *Informational literacy* refers to individuals' ability to evaluate and assess the source of advertising messages and the content presented. *Visual/aesthetic literacy* pertains to interpreting and appreciating advertising for its entertainment and aesthetic value. *Rhetorical literacy* refers to comprehension of the differential strategies used to persuade and market products to consumers. The fourth component, *promotional literacy,* refers to understanding the relationships between both commercial partnerships and collaborations and how these associations may impact how products are placed within the media, who serves as sponsor for these products, and the type and form of marketing strategies that may be used to promote them. As indicated by Malmelin (2010), the four dimensions collectively were intended to provide a model or framework for how best to study advertising from an advertiser's vantage point. However, the ramifications of this model for designing and studying media and advertising literacy programs among child and adolescent populations warrant further consideration via research.

A final factor that may compromise the efficacy of media literacy education is the paucity of research examining that efficacy. In one of the few studies that have been done, Buijzen (2007) explored the influence of media literacy interventions on the impact of advertising on 5- to 10-year-olds. Interventions specifically targeted children's cognitive defenses, which included knowledge of persuasive tactics including marketing strategies and affective responses such as attitudes toward commercials. Intended intervention outcomes included children's awareness of products and brands, their preferences for the products, and the extent to which they requested specified products or brands (Buijzen, 2007). Two approaches were utilized: the factual approach, which provided children with media content information, and the evaluative approach, which provided children with negative comments about the media message to which they were exposed.

The results indicated that the factual intervention increased children's knowledge and skepticism and, accordingly, increased negative attitudes toward messages. Thus, children were less likely to request advertised products given their increased awareness of marketing strategies and persuasive intent. Similarly, the evaluative intervention increased negative attitudes toward messages, thereby reducing requests for advertised products. Buijzen (2007) suggested that children's cognitive defenses were mediated by affective responses. Therefore, their liking of commercials may have weighed heavily in their decision to request advertised products.

Media literacy interventions and activities also have been incorporated into classroom learning (Hobbs, 2001). For instance, Hobbs and Frost (2003) investigated the integration of a media literacy module as part of an 11th-grade language arts curriculum that was designed to promote students' media message comprehension, writing, and critical-thinking skills. For the students who were exposed to the media literacy module, activities included reading a print news magazine article, listening to a US National Public Radio (NPR) audio news commentary, and viewing a television news segment targeted at adolescents. Students who participated in the module showed enhanced academic ability relative to students who were not given exposure to the module. Specifically, the former were better able to identify main ideas in a reading and to describe techniques used by authors to appeal to and maintain the interest of their target audience. Notably, the students who participated in the media literacy module also demonstrated improved ability to identify and comprehend message values and points of view in diverse media forms.

Commercial enterprises such as McDonald's also have launched media literacy projects (Eagle, 2007). The success of commercial initiatives is questionable, as they have demonstrated equivocal success in altering how well children comprehend media and media messages (Eagle, 2007). Further, questions emerge about whether commercial enterprises' efforts to deliver media literacy education are sincere in light of their larger goal to attract consumers to their products (Nairn & Fine, 2008).

Generally, researchers have argued that media literacy education intended for pre-adult audiences are best integrated within the school curriculum (Buckingham, 2003; Eagle, 2007; Hobbs & Frost, 2003; Livingstone & Helsper, 2006) with an emphasis on four key concepts: production, language, representation, and audience (Buckingham, 2003; Hobbs & Frost, 2003), as described below. According to Buckingham, teaching students about production includes teaching audiences to recognize how the current technologies may affect media production, helping them understand the technologies employed to create various forms of media, regulations around which media creators work, and the means of distributing the media message to the intended audiences. Buckingham describes language as an awareness of codes, conventions, and genres that are employed by the media creators to articulate the message to audiences. Specifically, media creators make deliberate choices and use language to limit or expand for whom the message is intended. Teaching students to be aware of representation requires educators to help students understand whether a given message is realistic, for whom

the message is and is not intended, and how stereotypes may be perpetuated through that message. Finally, Buckingham argues, being media literate entails understanding the role of the audience in the creation and reception of the message. Thus, educators should prepare students to tackle how creators of messages write to specific audiences, how they construct audiences that would respond to the messages, and the manner in which different audiences are addressed via media creators.

Clearly, challenges remain about how best to prepare children and adolescents to process the barrage of advertising that will reach them through increasingly sophisticated media forms. Hobbs and Frost (2003), as well as Buckingham (2003), argue that students can best learn the elements of media construction by actually creating media projects, thus becoming critically aware of how and why such messages are created. Ultimately, with regard to advertising, the goal is to ensure that media literacy efforts sell content about how best to analyze and evaluate persuasive messages—content that children and adolescents will hopefully buy.

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10

Under the Radar: How Embedded Commercial Messages in TV and the New Media Influence Children Without their Conscious Awareness

Laura Owen, Charlie Lewis & Susan Auty

As marketers seek new, more subtle ways to target the consumer, there has been an increase in the use of covert, interactive and multimedia forms of advertising. Even though these campaigns are largely targeted at adults, children are increasingly exposed to commercial messages embedded within TV programmes, films and video games. This practice is commonly known as brand or product placement and involves paid messages or within-context exposure, which is aimed at influencing audiences (Balasubramanian, 1991). Compared with 'traditional' messages on TV, this non-traditional technique results in the blurring of boundaries between advertising, entertainment and information (Gunter, Oates & Blades, 2005; Mallinckrodt & Mizerski, 2007; Wright, Friestad & Boush, 2005). This technique removes temporal markers that have traditionally distinguished selling from entertainment and requires the viewer to become sensitive to the intent of advertisers within this context. When we reflect on children's immersion in an increasingly commercialized media environment, key questions that emerge are what children understand about non-traditional advertising and how children are influenced by it.

This chapter addresses these two questions by exploring, first, children's understanding of TV advertising and various examples of non-traditional advertising, including product placement and, second, the influence of non-traditional advertising on children, using product placement as a ubiquitous and topical example. These two research strands have numerous real-world implications regarding

the ethics of targeting children with these less-transparent marketing techniques. A greater understanding of the underlying mechanisms of product placement from a psychological point of view, especially in the developing child, also has theoretical implications for our understanding of the nature and development of implicit and explicit memory.

Existing regulation

In most Western societies, governments impose clear and stringent guidelines on how much advertising children should be exposed to, which is often sanctioned in national and international law (e.g., the US Children's Online Privacy Protection Act 1998, the EU Unfair Commercial Practices Directive, 2005, and the UK Ofcom ruling on high fat, sugar or salt [HFSS] foods, 2007). This legislation is supported by a range of self-regulation agreements – for example, the US Federal Trade Commission (FTC) (www.ftc.gov), the US Children's Advertising Review Unit (CARU, 2006), the European Advertising Standards Alliance (EASA) (http://www.easa-alliance.org), and the UK Advertising Standards Authority (ASA) (http://www.asa.org.uk/asa). Industrial codes of practice (e.g., in companies such as Coca Cola, Kellogg's and Nestle) also support the World Health Organization's (WHO) 2004 policies on healthy eating, including WHO guidelines on marketing to children.

Despite this abundance of codes, concerns remain that children may not be fully shielded from the negative effects of advertising and from deception (Nairn & Mayo, 2009). Academic reports and press articles have been vigilant about the potentially harmful outcomes of advertising exposure, especially obesity resulting from junk-food advertising (e.g., Buckingham, 2009; Hastings et al., 2003, 2006; IOM, 2006; Moore & Rideout, 2007; Seiders & Petty, 2007). However, these may have had the unwitting effect of distracting the public from the more general influences of product placement.

In the view of the American Psychological Association's (APA) Task Force on Children and Advertising, there are negative consequences of young children's relatively unsophisticated cognitive skills, compared with older children and adults, which hinder the effective comprehension of advertisements (Kunkel et al., 2004). Their report assumes that young children are uniquely susceptible to advertisements and thus require special protection. According to the report, a sophisticated

understanding of advertising requires two key information-processing skills. First, children must differentiate between commercial and non-commercial content of televised material and, second, they must grasp the fact that advertisements have persuasive intent. Thus, if children are unable to distinguish advertising from entertainment or cannot understand that advertising intends to persuade, then the message may be viewed as deceptive and therefore unfair.

Regulatory codes with a focus on protecting children from deception stipulate that advertising should be easily identifiable. For example, the EU Unfair Commercial Practices Directive (2005) cautions against neglecting to identify the commercial intent of an advertisement, and the CARU (2006) guidelines require that children are informed clearly when an advertisement has been integrated into an online game. These requests for transparency are based on the premise that it is unfair and therefore deceptive for advertisements to sidestep the cognitive defences that would typically be activated if recipients understood that they were being exposed to a commercial message. The embedded characteristics of non-traditional advertising, particularly product placement, mean that these regulations are difficult to enforce and are frequently disregarded. For example, Nairn and Mayo (2009) noted that only 37 per cent of advertisements on children's websites were labelled as advertisements, and Fielder, Gardner, Nairn and Pitt (2007) found that 73 per cent of online advertising to children was covert in that it was embedded in the entertainment context.

In the UK, entertainment programmes and films involve unregulated advertising (e.g., those imported from the United States). The frequency of such advertising will increase since the UK government has allowed product placement in British commercial television programming. Even though children's programming is excluded from this deregulation, it is generally conceded that children watch a considerable amount of programming intended for adults. Fresh concerns are thus raised regarding the ethics and fairness of targeting children with these kinds of commercial messages.

What do children understand about non-traditional advertising?

As the majority of regulatory codes have been devised in response to television advertising, it is crucial to establish whether children's understanding of non-traditional advertising follows the same developmental pattern as their understanding of traditional advertising. In spite of the

increasing prevalence of non-traditional techniques, children's grasp of it is neglected in the literature. However, considerable research exists concerning their understanding of television advertising. Children are aware of brand names, slogans and logos from early in life (e.g., Hite & Hite, 1995; McNeal, 1992; Valkenburg & Buijzen, 2005), but does implicit persuasion occur because children do not comprehend that they are being exposed to advertising messages? Important policy issues hinge on how and when children gain an understanding of these covert marketing techniques (Friestad & Wright, 2005; IOM, 2006; Kunkel et al., 2004; Moore & Rideout, 2007). Such information would tell us whether children can construct and draw upon sufficient cognitive defences to be able to make informed decisions about the products to which they are exposed. It is generally agreed that the ability to evaluate persuasive messages in a critical and dispassionate manner may be necessary for a viewer to evaluate overt and, indeed, covert advertising techniques (Brucks, Armstrong & Goldberg, 1988; D'Astous & Chartier, 2000; Lindstrom & Seybold, 2003; Robertson & Rossiter, 1974, 1976).

So, do the characteristics of non-traditional advertising suggest that children may experience difficulties in understanding such advertising when compared with television advertising? Two important differences emerge between television and non-traditional advertisements. First, in contrast to television advertising, non-traditional advertisements are typically embedded within a non-commercial medium, increasingly utilizing interactive and engaging advertising content (Mallinckrodt & Mizerski, 2007; Montgomery, 2001). Second, as non-traditional advertising is frequently embedded and thus not always consciously perceived, its effects are heavily based on implicit, rather than explicit, processing (Moore & Rideout, 2007; Nairn & Fine, 2008).

Each non-traditional advertising technique utilizes different tactics. For example, advergames (see Chapter 12) are immersive and interactive, whereas product placement is typically more subtle. Yet they share the aim of distracting the viewer's attention from the commercial message motivating the placement of brands and logos. Thus, the ability to identify and process the intent of such messages presents a challenge even for adults. The few studies to investigate children's understanding of non-traditional advertising support the premise that children are particularly susceptible to non-traditional forms. Mallinckrodt and Mizerski (2007), for example, explored 5- to 8-year-old children's understanding of an advergame promoting a cereal brand and noted that while children's ability to appreciate the source and intent of the advergame increased with age (in line with the research on children's

understanding of television advertising), most children were unable to identify the game's commercial source correctly. In their study investigating 5- to 12-year-old children's understanding of programme sponsorship, Mallalieu, Palan and Laczniak (2005) noted that the younger children (5–7 years) possessed a less thorough understanding than the older children (11–12 years), revealing considerable confusion over who makes such advertising, who pays for it and who actually profits.

As with traditional advertising forms, non-traditional techniques usually link brands with positive events, such as an amusing plot, or with a known and liked celebrity. Such associations have been shown to generate positive affect, linking these stimuli to brand preference. Product placement delivers subtle, affective *associations* more than the explicit *messages* delivered – albeit peripherally and emotionally – by television advertisements (Moore & Rideout, 2007; Nairn & Fine, 2008). For example, video games emphasize increased involvement via sensory 'immersion' (e.g., Grodal, 2000; Vorderer, 2000) whereby players often control the brands themselves. They may, for example, 'drive' branded cars (Nelson, 2002) replete with appropriately placed logos, enhancing the ecological validity of the game, *and* the lure of the product. These advergames are a growing Internet-based means of entertaining children, but they also target children within a charged play context linked to specific branded products (see Chapter 12). They may be more persuasive than 'traditional' TV advertisements given their frequent use of animations, imagery and children's engagement in the activity (Neuborne, 2001; Pavlou & Stewart, 2000). These aspects of the new advertising landscape increase the likelihood of a more positive disposition towards the placed brands (Roehm & Haugtvedt, 1999), often without conscious awareness of this effect.

We conducted a study comparing children's understanding of TV advertising with a variety of non-traditional forms – namely, film and in-game product placement, product licensing, programme sponsorship and advergames. We interviewed 134 children from second (ages 6–7) and fifth grades (ages 9–10) in the UK about the nature and intent of all six advertising examples listed above, using combined open-ended and cued response formats. As anticipated, children demonstrated a significantly more sophisticated understanding of television advertising compared with all five examples of non-traditional advertising. Even the 10-year-old children failed to recognize the persuasive intent of non-traditional techniques in the same way they did with TV advertisements. Instead many children asserted that the non-traditional techniques were merely something to enjoy and to be entertained by.

Research based on television advertising suggests that children can identify commercial persuasion from 8 years of age (e.g., John, 1999; Kunkel et al., 2004; and see Chapter 2). In our study, children showed a reasonably sophisticated grasp of television advertisements, as if they were well versed in the idea that companies use the media to sell their products. However, the children's understanding was far poorer when assessed in an advertising medium not commonly recognized as advertising. Specifically, children's grasp of what we identified as more embedded examples of non-traditional advertising (i.e., product placement in films and games) was significantly lower than their grasp of the less-embedded media (i.e., programme sponsorship, product licensing and advergames). That even 10-year-olds' understanding is less sophisticated when the medium is unfamiliar or incidental (Livingstone, 2009) suggests that a typically held benchmark of 8 years of age may only apply to TV advertising and may need to be increased for these newer forms. This conclusion is supported by the Campaign for a Commercial-Free Childhood (Magee, Pisoni & Serio, 2008), which contended that current legal protection, largely based on self-regulation, is insufficient to accommodate the influence of non-traditional forms of advertising.

Why might it be the case that the more embedded advertising practices (i.e., product placement in films and video games) were the least well understood? As we discussed above, product placement typically embeds brands within an entertaining context, utilizing subtle, 'under the radar' persuasion processes which distract attention away from the commercial message. Since children's attention is likely to be focused on the plot of the film or control of the video game, fewer cognitive resources are available to scrutinize and evaluate the placed brands (Calvert, 2008; Nairn & Fine, 2008). We revisit this point below.

How are children influenced by non-traditional advertising?

To understand more precisely the kind of influence these messages have on children, we now focus our discussion on product placement as representative of a fully embedded advertising format. What do we know about how product placement works? Nairn and Fine (2008) drew upon a dual-process model to argue that product placements promote implicit processing because of the automatic, preconscious strengthening of emotional associations between stimuli. However, given their embedded nature, product placements evade explicit, deliberate processing. Accordingly, adults often do not show explicit awareness of exposure to placed products, but do display implicit priming as revealed in a

positive bias towards a brand (van Reijmersdal, Neijens & Smit, 2007; Yang, Roskos-Ewoldsen, Dinu & Arpan, 2006). Such effects on children's implicit memory by placed products have been seldom reported. For example, Auty and Lewis (2004a) found an increase in children's brand preference without an increase in recall of having seen the product in a movie clip.

From an information-processing perspective, the embedded nature of product placement means that the focus of children's attention will be on the plotline of the programme or control of the video game. As such, children's motivation, ability and opportunity to elaborate upon the commercial message are decreased (Moore & Rideout, 2007). Fewer cognitive resources are therefore allocated to identify the placed brand, resulting in the use of processing that has been described as implicit and 'experiential' by Meyers-Levy and Malaviya (1999). Research has shown that to monitor the persuasive nature of these advertisements, children need to draw on cognitive resources that apply knowledge of the intent of advertising. This involves conscious and effortful processing (Livingstone & Helsper, 2006). However, such images are usually processed at a much lower (preconscious) level and are elaborated upon less than items which are central to the plot.

There is general agreement concerning the key role played by implicit processing and, further, that a dissociated relationship between implicit and explicit memory exists, upon which the success of product placement is based. Over the past two decades, psychological research has emphasized a distinction between consciously controlled processes in explicit memory and non-conscious aspects of memory in which exposure to an item influences later processing of the same item independently of conscious recollection (implicit memory). Such a dissociation is assumed in many models of memory, yet there is still debate over whether they constitute two distinct memory systems (e.g., Graf & Schacter, 1985) or a single store in which distinctive processing mechanisms reflect the effects of different thresholds of activation (e.g., Whittlesea & Price, 2001).

Original accounts of implicit memory stressed the role of *perceptual fluency*, where feature-level analysis leads to feature-level processing at a subsequent exposure (e.g., Bornstein & D'Agostino, 1992, 1994; Tulving & Schacter, 1990). Such facilitated-processing fluency caused people to experience a sense of familiarity with an item which could be misconstrued in positive terms, generating positive affect towards the stimulus (Jacoby, Kelley & Dywan, 1989; Janiszewski, 1993). Both Zajonc (1968, 2001) and Jacoby et al. (1989), for example, have proposed that

previously seen items are misconstrued as familiar or likeable, rather than just remembered.

However, this exposure-leads-to-liking claim has been criticized by proponents of a more complex view of implicit memory where *conceptual fluency*, a speed of processing that is activated via semantic memory, plays a large role (e.g., Hourihan & MacLeod, 2007; Mantonakis, Whittlesea & Yoon, 2008; Winkielman, Schwarz, Fazendeiro & Reber, 2003). This shift in theorizing is exemplified by Braun-LaTour and Zaltman (2006), who proposed a 'memory integration paradigm' which asserts that existing attitudes, values, prior knowledge, relevance, semantics and the advertising context are all involved when advertisements are processed by adults. Similarly, Balasubramanian, Karrh and Patwardhan (2006) proposed an 'integrative conceptual model' of product-placement processing among adults in which conceptual factors such as brand familiarity influence the effectiveness of product placements. These proposals require examination within a developmental framework.

Brand logos are particularly relevant to the notion of conceptual fluency because brands are symbolic and meaningful and tap into emotions and personal experiences. A brand logo may thus provide a more complex stimulus to process than the stimuli typically used to measure the effects of mere exposure (e.g., geometric shapes). The implicit processing of product placement may therefore incorporate a conceptual (or semantic) component beyond simple perceptual factors.

The development of implicit versus explicit memory

Understanding differences in the developmental trajectories of implicit versus explicit memory appears crucial in the debate over children's exposure to non-traditional advertising. While children's implicit memory for product placement has not been researched in depth, researchers have assumed that there are clear developmental differences between implicit and explicit memory. Implicit memory can be identified in infancy. Schacter and Moscovitch (1984) suggested that it emerges at about 8 months. Subsequent studies suggest that it remains little affected by maturity and cognitive capacity (e.g., Graf & Schacter, 1985; Hayes & Hennessy, 1996; Newcombe & Fox, 1994; Parkin, 1997). In contrast, explicit memory has been found to emerge more gradually, reaching maturity in adolescence, and to be closed related to the ability to demonstrate attentional resources and mnemonic strategies and to elaborate upon a memory trace (e.g., Drummey & Newcombe, 1995; Flavell & Wellman, 1977; Naito, 1990).

These developmental differences have been replicated in numerous studies. Parkin and Streete (1988), for example, noted that 3-year-old children were able to demonstrate implicit memory using a fragmented picture-recognition task, yet showed deficits in explicit memory when compared with older children (aged 5 and 7). Likewise, Drummey and Newcombe (1995) obtained evidence of perceptual priming in 3-year-olds, despite recognition memory being no more than at chance level.

However, controversy exists over the development of implicit memory. Some researchers have suggested that both explicit *and* implicit memory are related to knowledge and, therefore, are subject to developmental change (Murphy, McKone & Slee, 2003; Perruchet, Frazier & Lautrey, 1995). The exact nature of the change in implicit memory has not yet been articulated. Analysis of such change must consider the links between cognitive and affective aspects of memory and the role of general processing factors known to develop across childhood (e.g., memory capacity, meta-memory skills and strategy use). That is, if conceptual fluency has a role in implicit memory, then children's perceptual implicit memory may not increase with age, unlike their capacity to make conceptual implicit connections. Therefore, their susceptibility to covert, implicitly processed commercial messages may develop between the ages of 2 and 3 (when brand knowledge is first acquired) and peak at around 10–11 (when their ability to understand persuasive intent may lead to strategic, yet still non-conscious, counterargument). Indeed, although choice of the placed brand by the 6- to 7-year-old age group was not significantly different from that of the 10- to 11-year-olds in the study by Auty and Lewis (2004a), the younger children were more likely to select the placed brand yet be unable to recall seeing it, compared with the older children.

Research with adults has identified numerous conceptual variables which impact the relationship between advertising exposure and the implicit-versus-explicit effects. These variables comprise both individual factors, such as brand familiarity (Balasubramanian et al., 2006) and personal salience (Braun-LaTour & Zaltman, 2006), and situational factors, such as the mood context of the advertisement (Braun-LaTour & Zaltman, 2006). That these variables may impact the processing of product placements suggests a more complex sequence of cognitive events than mere perceptual exposure leading to behavioural effects.

Brand familiarity and personal salience

The evidence suggests that exposure to familiar brands may enhance both explicit *and* implicit processing. Auty and Lewis (2004a, 2004b)

showed that exposure to a product placement in a film clip, combined with reminders of the scene containing the branded product, influenced children's implicit memory, and subsequent product choice. The authors suggested that perceptual fluency was the likely link between brand exposure and the implicit effects but also recognized a possible role of semantic knowledge. In fact, superior explicit memory for familiar, versus unfamiliar, product placements has often been reported in adults (Brennan & Babin, 2004; Nelson, Yaros & Keum, 2006), perhaps because familiar items are known and have a place in the person's semantic appreciation of products that facilitate attention and processing (Roskos-Ewoldsen & Fazio, 1992). Evidence shows that personally salient product placements also promote enhanced explicit memory, compared with less salient placements (Nelson, 2002).

Thus, prior experience and meanings previously attributed to a brand may interact unconsciously with implicit memory in producing fluency effects (i.e., the ease with which the brand is processed) (Lee & Labroo, 2004). Exposure to a brand which is personally salient is predicted to activate existing, conceptually related, semantic information in memory that activates an implicit fluency in processing brand–related stimuli. Logos are highly symbolic constructs, and even preschool children attach meanings to, and preferences for, specific branded items (Hite & Hite, 1995; Pine & Nash, 2003; Robinson, Borzekowski, Matheson & Kraemer, 2007). Consequently, the familiarity and salience of a brand are also likely to influence when and if product placements are implicitly processed by children.

Mood context

Research with adults provides support for an impact of the emotional setting of advertising on both implicit and explicit processing. Kirmani and Yi (1991) asserted that the impact of context may be cognitive or affective. Mood context influences attitudes towards the advertisement and subsequent evaluations of the advertised brand (Axelrod, 1963; Edell & Burke, 1987; van Reijmersdal et al., 2007; Yi, 1990). Lee and Labroo (2004) suggested that a positive context activates positive links in the semantic network, leading to enhanced processing fluency and thus positive affect.

Positive mood may lead to a more holistic processing style (Gasper & Clore, 2002) with its focus on deeper meanings, whereas negative mood might lead to attention towards details, which then become associated negatively with the product being shown. Forgas (1998) argues that happy people want to preserve their moods and avoid cognitive

effort, whereas people in a negative mood are likely to employ more systematic and effortful processing to change their problematic circumstances (see also Gasper, 2004). Since playing video games and watching films are positive activities for children, it is likely that implicit, affective processing will, on the whole, be greater than explicit, detailed processing and positive affect more likely than negative. Admittedly, children may respond differently to placements if experiencing frustration when playing a game. This situation, too, is worthy of investigation because it raises the possibility of negative affect and associative learning, which would contribute to our understanding of how commercial messages are actually processed.

How can we measure implicit and explicit memory in children?

Most advertising research relies on explicit recall or recognition measures. Research on product placement is consistent with this tradition (e.g., Babin & Carder, 1996; Gupta & Lord, 1998; Nelson et al., 2006; Russell, 2002), although this advertising medium relies on an implicit influence on purchasing behaviour.

How can implicit effects be measured? We have developed a new measure of implicit memory to assess children's implicit processing – the 'Fragmented Logo Implicit Recognition Task' (FLIRT) – adapted from Snodgrass, Smith, Feenan and Corwin (1987). For this task, children are shown a picture of a highly degraded brand logo, with seven-eighths of the original pixels removed randomly across a grid overlaying the logo, and then asked to identify the brand. Next, they are presented with a series of seven increasingly more complete images of the brand logo (each with one-eighth more of the total pixels added) through to a complete image of the logo. In other words, children were first shown a picture of a very degraded image that contained only fragments of the logo. Then, with each following picture, they were shown progressively more complete images of the logo, until the last picture showed the whole of the actual logo. Children who guess which brand the logo represented on the first (most fragmentary picture) receive eight points. If they guess correctly on the second picture, they receive seven points, and so on. Children who are unable to name the final, complete picture receive a score of zero. Ease of recognition is the dependent measure, with brand identification from a more degraded image indicating greater implicit memory.

The FLIRT attempts to provide a sensitive priming measure of implicit memory and is less likely than traditional implicit measures

(e.g., hypothetical choice tasks) to draw upon other factors, such as social desirability or the influence of explicit memory (e.g., Butler & Berry, 2001). The FLIRT enables us to ascertain the preconscious effects of various advertising techniques across a diverse age range of participants. We have used it in settings exploring product salience and exposure frequency and context. However, further testing of a range of relevant factors is needed to take developmental processes into account (e.g., Moses & Baldwin, 2005).

After finishing the FLIRT, children perform an explicit brand-recognition task to tap their conscious product-placement memory. In this task, children are asked to select the brands they remember seeing in a film clip from a selection of logos displayed before them. This provides a direct comparison between implicit and explicit recognition of product placements.

A series of experiments with children

To examine children's responses to product placement, particularly with regard to connections between conceptual variables and implicit processing, we conducted a series of experiments manipulating different types of exposure to product placements embedded in short film clips. We assessed the roles of age, personal salience and mood context on younger (6- to 7-year-old) and older (9- to 10-year-old) children's implicit and explicit processing of product placements.

In a first experiment, we explored the role played by personal brand salience. One hundred and forty-three children ages 6–7 and 9–10 years were split randomly into two groups. The first group viewed the test film clip, containing two product placements. The first was a high-prominence Pizza Hut placement, and the second was a low-prominence Nike placement. The second group viewed the control clip, which was taken from the same film, matched for pace and interest, yet contained no brands. Pizza Hut represents a child-oriented fast-food brand and was thus deemed to be highly salient among 6- to 10-year-old children. Nike, in contrast, is likely to increase in salience among older children and adolescents (e.g., Pine & Nash, 2003).

The children watched the film clips in small groups. Immediately after viewing, each child was individually interviewed to establish his or her implicit memory (via the FLIRT task) and, second, his or her explicit memory (via the explicit brand logo recognition task). We noted that the highly salient, prominently placed brand led to facilitated implicit memory; a less salient brand presented under low prominence did not induce an implicit effect.

To further examine the role of personal salience, a second experiment exposed 150 children ages 6–7 and 9–10 years to either a test film clip containing a high-prominence FedEx placement and a low-prominence Snickers placement or a control clip, again taken from the same film, matched for pace and interest, yet containing no brands. FedEx represents an adult-oriented courier company of no salience to 6- to 10-year-old children, while Snickers represents a more child-oriented confectionary brand, thus of increased salience. The FLIRT revealed that if a brand was placed in a prominent way but was not personally salient to the child, then no implicit effects were observed. A very brief exposure to a salient brand, however, was enough to enhance implicit memory. Our findings support the conjecture that personal salience augments the implicit effects following product placement exposure.

In our next experiment, we explored the role played by mood context. One hundred and twenty-eight 10-year-old children were exposed to either a positive film clip featuring the Nike brand portrayed in a positive context, a negative film clip featuring the Nike brand portrayed in a negative context or a control clip, again taken from the same film, matched for pace and interest, yet containing no brands. The FLIRT revealed that implicit memory was facilitated *only* when the product placement occurred in a positive context. Throughout this series of experiments, the explicit brand-recognition task revealed that explicit memory for product placements was poor, although children were provided with the prompt of the implicit task. Further, children's explicit product-placement memory did not account for success on the FLIRT, highlighting the need to separate implicit versus explicit product-placement processing.

That a positive context was required to facilitate implicit memory suggests that embedded advertisements do not initiate generic positive affect, as proposed by perceptual fluency accounts. Instead, product placements depend upon a positive mood context for a global (i.e., non-effortful) processing mode whereby the product is conceptually associated with positive affect. This mode appears to block both the recognition of the placement as a commercial message and attention to details that might detract from the positive affect, such as memory of an earlier experience with the product. Similar experiments using video games with children aged 9–10 years carried out in China lend support to this proposed mood mechanism (Hang, 2009). Hang incorporated a choice element, and children in the negative mood condition were significantly more likely than those in the positive or control conditions to choose brands that were not shown in the game. A negative mood

context may thus shift the memory from implicit to explicit mode, provoking recall and counterargument.

Is conceptual priming central to implicit learning of products? Heath and Nairn (2005) found that adults can acquire brand information implicitly from television even when they pay little or no attention to the screen. In our earlier research (Auty & Lewis, 2004a, 2004b), we used a brand which was highly familiar to children (Pepsi as shown in the US-based movie *Home Alone*) but did not explore the role of the entertainment context for introducing children to novel brands. That we observed no implicit effects following exposure to a non-salient brand in our current research suggests that exposure to product placement may not be sufficient to induce implicit learning, even after several shots and repeated explicit naming of the product. This implies that product placement may not work as an advertising technique for children if the brand has no salience. Yet this raises the question of how a brand becomes salient. Necessarily, salient brands must be relevant to children's interests, but we contend that research should identify the cognitive, social and developmental processes that make individual brands salient to children.

The conceptual factors that seem to be involved in how we react to advertisements provide evidence that adults' product-placement processing taps into their semantic knowledge, and supports the role of conceptual fluency (see also Braun-LaTour & Zaltman, 2006; Mantonakis et al., 2008; Winkielman et al., 2003) which questions traditional perceptual fluency accounts (e.g., Bornstein & D'Agostino, 1992, 1994; Tulving & Schacter, 1990). Of course, in some contexts we have to rely on perceptual fluency, like when seeing novel stimuli with no semantic associations (Zajonc, 1968, 2001). However, even children's implicit processing of product placements seems to be prompted by their conceptual grasp of brands.

Our finding that implicit memory is enhanced by cognitive-affective factors adds to recent claims (e.g., Murphy et al., 2003) that implicit memory, while more developed than explicit memory from birth, may also increase with experience and processing ability. In addition, a demonstrated role of personal salience suggests that explicit memory must be involved at some level. Indeed implicit and explicit factors are likely to interact with one another, yet ultimately they can be dissociated.

Summary and conclusion

Because of the key distinctions between television and non-traditional advertising, a very different kind of commercial understanding may be

required to interpret non-traditional techniques. For example, Nairn and Fine (2008) argue that children need an *implicit* 'media literacy' to be able to grasp non-traditional advertising, given the amount of implicit processing it requires. A UK website 'Chew on This' (www.chewonthis.org.uk), run by the Food Commission, has set out to improve children's media understanding, specifically concerning 'non-traditional' advertising techniques. Greater education regarding these more subtle techniques appears necessary for both parents and children. It must be acknowledged that a sophisticated understanding of advertising and the associated consumer defences may still fail to protect children from the impact of commercial messages, such as product placement, which are typically delivered below the level of consciousness (Chernin, 2008; Livingstone & Helsper, 2006; Mallinckrodt & Mizerski, 2007; Moses & Baldwin, 2005; Rozendaal, Buijzen & Valkenburg, 2009).

Research has emphasized how embedded messages work in terms of explicit recall or, more recently, implicit perceptual fluency. Our findings regarding the role of personal salience and mood suggest that embedded commercial messages may incorporate a conceptual component that is sensitive to prior knowledge and the emotional context which interact with the appearance of the brand to produce implicit-processing fluency. Thus, while implicit memory may be present from birth, the capacity for processing fluency appears to develop, depending on an increasing knowledge structure which enhances implicit perceptions and makes them meaningful. Therefore, children's capacity to process these messages differs from that of adults, and it also increases throughout childhood along with their knowledge base and explicit memory.

Nevertheless, the regulation of embedded commercial messages is still poorly scrutinized by both child-development researchers and policy makers (Nairn & Mayo, 2009). From an ethical stance, such messages must be viewed as inappropriate for children, given their deficits in understanding. Children's incomplete commercial understanding may make them particularly susceptible to messages by the very (familiar) categories that pose most risk to their healthy development – for example, low nutritional items such as fizzy drinks. Regulators in the UK belatedly acknowledged arguments by bodies such as the British Medical Association and National Heart Forum and added some exceptions to the legislation to allow product placement. In particular, the regulations prohibited the placement of alcohol, smoking 'accessories' and food and drink high in fat, salt or sugar (HFSS foods) (Bradshaw, 2010).

Much remains to be learned about how children process commercial messages, especially ones they cannot recognize as such. Ideally,

longitudinal research would be initiated so that children could be tracked from their earliest brand awareness through to young adulthood. This would enable questions to be answered about repetition, involvement, personality differences and other important psychological and sociological factors that influence children's understanding of and ability to interpret the commercial messages thrown at them in increasingly creative ways.

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11
Young Children's Ability to Identify Advertisements on Television, Web Pages and Search Engine Web Pages

Shiying Li, Megan Pickering, Moondore Ali, Mark Blades & Caroline Oates

Introduction

In this chapter we will consider children's ability to distinguish an advertisement in different contexts, on television and on web pages. By 'distinguish' we mean not only the ability to identify an advertisement but also the ability to avoid mistaking something else (e.g., a television programme) as an advertisement.

Most previous research into children's understanding of advertising has focused on children's understanding of television advertising, and these studies have demonstrated that becoming aware of advertisements is a gradual development (Gunter, Oates & Blades, 2005; Kunkel et al., 2004) which takes place from the preschool years until the teenage years (Oates, Blades & Gunter, 2002). But within that development two important stages are apparent.

The first stage is when children can distinguish an advertisement from its surrounding context. Being able to identify what is an advertisement on television is achieved when children are quite young because preschoolers can often distinguish advertisements from programmes (Levin, Petros & Petrella, 1982). The second stage is when children start to understand that advertisements are persuasive messages, which is a much later achievement because it is not until at least 8 years of age that children start to realise the persuasive nature of television advertising (Kunkel et al., 2004; and see Chapter 2).

The difference in the age of achievement between just being able to recognise an advertisement and being able to interpret it as a persuasive

message means that children can identify television advertisements long before they have any greater understanding of advertisements (Gunter et al., 2005). It might seem obvious that children are likely to be able to recognise an image as an advertisement before they understand the purpose of that advertisement. However, as we will point out in this chapter, the stages that might seem clear from the research into children's understanding of television advertisements may not apply to advertising in other media. We will argue that children may sometimes have quite a good awareness of what advertising is, but even so they are not always able to recognise what is and what is not an advertisement.

Until recently there has been little research into media other than television; but in this chapter we will discuss children's recognition of advertisements on web pages and suggest that the sequence of understanding derived from television research is inappropriate for describing the development of children's awareness of advertisements in new media. To begin, we will briefly discuss the research into children's recognition of television advertisements.

Distinguishing advertisements and programmes on television

Much of the research into children's ability to distinguish television advertisements was carried out in the 1970s and early 1980s and mainly in the United States. For example, Levin et al. (1982) showed 3-, 4-, and 5-year-olds a videotape that included a number of extracts from advertisements and television programmes to find out if the children could distinguish between the two. The extracts were the first ten seconds of advertisements aimed at children and adults or the first ten seconds of a programme (not including the title sequence). These extracts were presented to the children in a random order on the videotape, and the children were asked say whether they were looking at an advertisement or a programme. All three age groups performed the task better than chance; the 3- and 4-year-olds correctly labelled two-thirds of the advertisements or programmes, and the 5-year-olds correctly identified four-fifths of the extracts.

Although the 5-year-olds in Levin et al. (1982) were not completely accurate at identifying all the advertisements, the children were shown only ten-second extracts, so the fact that they could recognize a high proportion of advertisements from such short segments suggests that

5-year-olds did have a good ability to identify advertisements on television. This conclusion was also supported by other researchers (e.g., Butter, Popovich, Stackhouse & Garner, 1981; Gaines & Esserman, 1981). Butter et al. showed children a television programme that included four advertisements. Children aged 4 and 5 years were asked to watch the programme and indicate whenever they thought an advertisement began. Three-quarters of the 4-year-olds and nearly all the 5-year-olds identified all four of the advertisements.

The early research into children's recognition of television advertisements came to clear and consistent conclusions about the age (5 years) when children can be expected to identify most television advertisements. However, studies carried out in the 1970s and 1980s may not reflect how well contemporary children identify advertising on television. It can be assumed that young children nowadays have a much greater experience of television, of other media and of advertising than children had more than 30 years ago.

On the one hand, children's understanding of media and advertising may be limited at any age by their level of cognitive development at that age (Gunter et al., 2005), in which case we would not expect many differences in performance between children in the early studies, such as Levin et al. (1982), and contemporary children. There is no reason to believe that the progression of children's cognitive abilities is any different today than it was 30 years ago (Smith, Cowie & Blades, 2011). On the other hand, if experience plays a key role in recognising advertisements, then the fact that media is so much more pervasive in even very young children's lives these days might mean that contemporary children are now more aware of advertisements than were children years ago.

As part of a research project by Shiying Li, we considered these themes by replicating Levin et al.'s study as closely as possible, but using contemporary materials with children in China. There were 127 children in approximately equal numbers of 3-year-olds, 4-year-olds, 5-year-olds, 6-year-olds and 7-year-olds from schools in Wuhan and Chongqing in China. Ninety-six per cent of the children had a television at home and watched it regularly.

Segments from Chinese TV programmes and from advertisements were shown to children on a computer screen to assess their ability to distinguish between TV programme and advertisement. As in Levin et al. (1982), there were a total of 28 segments: 14 from programmes and 14 from television advertisements.

As in Levin et al., each segment was ten seconds long. The programme segments did not include the opening credits (with titles and music) and did not include any programme logos. All the programme segments were taken from children's programmes broadcast between 2009 and 2010 on China Central Television (CCTV), a national channel, or from Chongqing Television (CQTV), a regional channel. The advertisement segments were the first ten seconds of a TV advertisement from CCTV or CQTV. The segments shown to children were in a random order, and each child saw them in a different order. There were three seconds of blank screen between each segment.

In a practice task (again like Levin et al., 1982) children were shown a video with segments of an animated show and a non-animated show. The children were told that they were going to see a video with a number of extracts from television and were asked to say 'cartoon' or 'not a cartoon' as appropriate. If children were successful on this practice task, showing that they understood the procedure, they went on to do the experimental task. In the experimental task, children were shown the video with the 28 segments and asked to respond 'programme' or 'advertisement' as they saw each segment on the screen.

The 3-year-olds correctly identified a mean of 20 of the 28 television segments. The 4-year-olds recognised 23 segments accurately; the 5-year-olds recognised 25 segments; the 6- and 7-year-olds identified virtually all the segments with hardly any errors. These results were very similar to Levin et al. (1982), on which the study was based. Both this experiment and Levin et al.'s experiment showed that children aged 3 and 4 years could identify many, but not all, the television extracts, and that 5-year-olds recognised most of the extracts. By 6 years of age in our study, the children could distinguish nearly all the extracts. This pattern of results also corresponds to other early research (e.g., Butter et al., 1981) and demonstrates a consistency in when children can identify television extracts as either programmes or advertisements.

We suggested above that contemporary young children probably have more experience of media than children had 30 years ago and may see a greater number of advertisements. Nonetheless, the children in our study gave the same age-related performance as children in the original experiments. In other words, children's ability to recognize advertisements is unlikely to be matter of media experience and is probably more related to their cognitive ability at different ages. Most importantly, we showed that contemporary children could distinguish between television programmes and advertisements without any difficulty by 6 years of age.

Distinguishing advertisements and non-advertisements on web pages

Contemporary children see advertisements not only on television but also in other media, and especially on the Internet. Young children today are surrounded by media; Ofcom reported that children in the UK aged 5–15 years spend an average of 41 hours per week consuming media, in contrast to the 30 hours they spend in school (Ofcom, 2011). Technological advances, such as faster broadband speeds, the development of iPads, tablet devices and smartphones, mean that children now have more opportunities than ever to use media and access the Internet. Nielsen (2011) found that in 70 per cent of tablet-owning households, children used the device. The prevalence of the Internet in the lives of children has led to the labelling of the most recent generation as the 'Net generation' (Grail Research, 2011), with Prensky (2001) describing children as 'digital natives'.

As noted above, previous researchers have focused on advertising through television. Although television remains the most frequently used electronic device, young people are increasingly using computers and other devices to watch television online and are often engaged in 'media multitasking' – that is, using several media sources at once (Rideout, Foehr & Roberts, 2010). The increasing use of different forms of media among children also means there are more opportunities for children to be targeted by advertisers. Neuborne (2001) reported that two-thirds of children's websites earned their primary revenue from advertising. Children may be unfamiliar with such forms of advertising and unaware of how to protect themselves from it. Ofcom (2011) reported that less than half of 12- to 15-year-olds knew how to block pop-up adverts on the Internet.

The research into television advertising has usually been about traditional 'spot' advertisements, which are the short advertisements broadcast during commercial breaks in programmes or between the programmes (Gunter et al., 2005). Such advertisements can be identified by characteristics such as their pace, jingles, voiceovers and their contrasting style and content to the surrounding programmes. Television advertisements tend to be short and are usually grouped together with several in the same commercial break. Advertisements are usually repeated on television, so children see the same advertisement a number of times. In some countries there is a separator between a programme and the commercial break. All these characteristics potentially provide children with cues that they are watching an advertisement and not a programme.

In contrast, advertisements that appear on web pages may be just one image among many other images on the page (Ali, Blades, Oates & Blumberg, 2009). Web page advertisements are not necessarily separated from the rest of the page, and many of the cues that might help a child recognize a television advertisement do not apply to an advertisement on a web page. Therefore, we assume that, for young children, identifying an advertisement on a web page might be more difficult than recognising a television advertisement. To find out if this was the case, we asked children to look at web pages and point to any part of the page they thought was an advertisement.

In Ali et al. (2009) we asked children between the ages of 6 and 10 years to look at a number of web pages. The web pages were constructed for the experiment so that the pages and their images would be unfamiliar to the children. Each page was designed around a theme (for example, outdoor pursuits), and each included nine areas – these were nine images of text boxes roughly laid out in a 3 × 3 pattern, but not so rigorously that the pages looked unlike actual pages that children might see on the Internet. Some of the pages included one advertisement, and some had two. The style of the advertisements matched the style of the page and generally related to the theme of the page (for example, the page on outdoor pursuits included an advertisement for a children's paddling pool); half the advertisements included the price of the product with a phrase like 'our price £9.99'. Other pages were designed in the same way but did not include any advertisements, to avoid children assuming there would be at least one advertisement on a page and then guessing where it was.

All the advertisements were invented ones so children would not already be familiar with them; however, the advertisements, like the web pages, were closely modelled on advertisements that could be found on web pages aimed at children at the time. An important part of developing the pages was to show them all to a group of adults and ask the adults to say what they thought were advertisements. There were 27 advertisements in total, and the adults consistently identified them all as advertisements and, equally importantly, never incorrectly identified anything else on the page as an advertisement. In other words, even though the advertisements were invented for the purpose of the experiment, there was unambiguous agreement among adult viewers that the advertisements looked like typical advertisements.

The web pages were printed out for the children to look at and placed one at a time on a table in front of them. For each page, the children

were asked if there was an advertisement on the page, and if so, to point to whatever they thought was an advertisement. The position of the advertisements was counterbalanced so that they appeared equally often in different parts of the 3 × 3 page. All the advertisements and images on a page were approximately the same size, because pilot work had shown that when young children could not identify an advertisement, they sometimes guessed by pointing to whatever was the largest image on a page.

Ali et al. (2009) found that the 6-year-olds pointed to less than a third of the advertisements, the 8-year-olds identified just over half the advertisements and the 10-year-olds identified nearly three-quarters of them. This was in contrast to the adults, who had identified all the advertisements correctly. The children also made a number 'false positive' identifications, when they incorrectly pointed to images on the pages that were not advertisements, and this was also in contrast to the adults, who never identified a non-advertisement as an advertisement.

In a second study, Ali et al. (2009) repeated the same study in Indonesia, using the same set of web pages translated into Bahasa Indonesian. The children in Indonesia included the same age groups as in the United Kingdom, with the addition of an older age group of 12-year-old children. The findings from Indonesia were almost the same as from the United Kingdom, with the 6-year-olds recognizing about a third of the advertisements, the 8-year-olds half the advertisements and the 10-year-olds three-quarters. The additional group of 12-year-olds in Indonesia did not perform any better than the 10-year-olds. And again, as in the United Kingdom, all the age groups made numerous false-positive identifications and wrongly thought that non-advertisements might be advertisements.

The fact that the older children in both countries had difficulty distinguishing advertisements from the rest of the content of a web page was in contrast to what is known about young children's ability to identify advertisements on television. As discussed above, earlier researchers such as Levin et al. (1982) and Butter et al. (1981) found that children could distinguish television advertisements successfully by 5 or 6 years of age. Clearly, the children in Ali et al. (2009) were older before they began to recognise the web page advertisements. Since the advertisements used in the experiment were closely modelled on advertisements found on actual web pages aimed at children, we can assume that the children, especially the older ones, had seen numerous examples

of advertisements on the Internet, but were clearly not always aware whether they were looking at part of the content of a web page or a paid advertisement on the page. Since Ali et al. (2009) included participants from different countries, children's difficulty in recognising the advertisements was not specific to one culture.

The studies by Ali et al. (2009) used printed copies of web pages, and although this would seem unlikely to have an effect on children's ability to recognise advertisements, it is possible that children might perform better looking at actual web pages on a screen. The paper versions of the web pages could not, of course, be animated pages, but many web page advertisements include some form of animation. In a further study, we followed the same procedure as Ali et al., but tested children on-screen and included pages with animated images and advertisements. Over 100 children aged 7, 9 and 11 years, from a primary school in Chongqing in China took part in the study.

The children were first asked if they had a computer and about their access to the Internet at home. Virtually all the children had a computer at home and had access to the Internet. A few of the 7-year-olds and over a third of the 9- and 11-year-olds had a computer in their own room. All the children who had access to a computer said they used the Internet and were familiar with web pages. The children were tested individually and saw the web pages on a laptop computer. The children were told that they were going to be shown 20 web pages and that a page might include one advertisement or none at all. Children were shown the pages one at a time and were first asked if they could see an advertisement; if they said yes, then they were asked to point to what they thought was the advertisement.

The pages were designed to look the same as typical web pages that the children might have seen in China. All the pages had 10 images or text areas, each of roughly the same size on various backgrounds, and each page had a theme (e.g., animals, dinosaurs, landscapes, buildings, cartoon characters). Any advertisements on the pages were closely based on actual Chinese advertisements, but the names and wording on them were changed so that the advertisements were novel and children could not identify the advertisements simply by remembering that they had seen them before.

The web pages included some animated images to reflect the fact that many web pages and advertisements involve animation. Five of the web pages had an animated advertisement (that was flashing), and five pages included a still advertisement. Five pages did not include an advertisement, but one of the images on each of these pages was flashing (which

we will call the flashing non-advertisement), and five pages did not include an advertisement or any flashing images at all. The pages were first shown to a group of 33 adults. All the adults correctly identified all the advertisements without difficulty.

Since there were ten advertisements on the pages with advertisements, the children could, if they pointed to all the advertisements correctly, have achieved a maximum score of ten. The 7-year-olds identified nearly half the advertisements. The 9- and 11-year-olds did better, recognising most of the advertisements.

When the children were shown the ten pages without advertisements, they should always have said they could not see an advertisement. The 7-year-olds incorrectly said they could see an advertisement on about 40 per cent of these pages. The 9-year-olds said they could see an advertisement on 20 per cent of the pages, and the 11-year-olds on about 30 per cent of the pages. The 9-year-olds performed significantly better than the other two age groups, whose performance did not differ.

The results from the younger children in this study were therefore comparable to the younger children in Ali et al. (2009) because these children had difficulty recognising all the advertisements, and it was not until 9 years of age that the children were able to recognise most of the advertisements correctly. But even after this age, children quite often identified non-advertisements incorrectly as advertisements. In other words, even the older children had difficulty distinguishing what was and was not an advertisement on a web page. This is a much older age than when children can distinguish television advertisements successfully (Levin et al., 1982).

In this study, half the advertisements were flashing, and the flashing advertisements were the only animated image on the page. Therefore, we thought they might attract the children's attention, or even that children would choose the flashing image just because it was the most distinctive image on the page. However, there was no difference between the children's performance in identifying the flashing advertisements and the still advertisements. Therefore, the animation did not result in the children recognising the flashing advertisements any more often than the non-flashing advertisements.

On the pages with a flashing non-advertisement, there was no indication that the children thought the flashing image was an advertisement more often than the other images on the same page. In fact, when the children wrongly said that there was an advertisement on the pages without advertisements, they chose only the flashing non-advertisement about a sixth of the time. So there was no evidence that

the children were more attracted to a flashing image than a still image. In other words, children did not seem to be using the fact that an image was flashing as a cue, rightly or wrongly, to identify those parts of a web page that were advertisements.

In the rest of the same study, we investigated what cues or strategies the children used when they identified an advertisement. After children had been through all the web pages, they were shown a second time each advertisement they had pointed to correctly and were asked why they thought it was an advertisement. Adults were also asked to say how they identified each of the advertisements. Participants' reasons for selecting an image as an advertisement were placed in the following nine categories:

No explanation: Participants could not give any reason for their choice or said something irrelevant.

Descriptions: Participants described what they saw in the image; for example, if the image included a picture of biscuits, a participant might say, 'Because it's an advertisement for biscuits'. Some participants also made a general comment about the image, that it was beautiful or attractive.

Flashing: Participants referred to the fact that an image was flashing.

Familiarity: Some participants thought they had seen an image before (for example, that they had seen it on television) and it was therefore an advertisement. But as noted above, all the advertisements in the experiment were invented, so the children could not have seen them before.

Style: Participants referred to the design of the image and compared the design to what they expected to be in an advertisement (for example: 'it's an advertisement because it has words and a title' or 'the colour is like an advertisement').

Information: Some participants referred to the content of the image and said it provided information or they had learnt something from it.

Contrast: Participants chose an image because they thought it looked different from the other images on the page – for example, because its style, lettering or colour appeared different from the rest of the page.

Wording: Some participants said they thought the image included promotional wording or a brand name.

Persuasive intent: Some participants explicitly mentioned that an image was designed to sell something (e.g., 'it wants you to go to eat in a restaurant').

Any participant might describe an image as an advertisement using several of the above categories. The adults' reasons will be described first, bearing in mind that the adults correctly identified all ten of the advertisements on the web pages. The adults very rarely relied on just describing what they could see in the advertisement. A few times adults referred to the style of the image and said it looked like an advertisement. But by far the majority of the reasons given by the adults for identifying an advertisement focused on its persuasive intent, its wording or the contrast between it and the rest of the page (including, on a few occasions, the fact that it was flashing in contrast to the other, still, images on the page).

Like the adults, most of the 11-year-olds' reasons were about the persuasive content or the wording. However, unlike the adults, the 11-year-olds rarely noted whether the advertisement contrasted with the other images on the page, and they never mentioned that some of the advertisements were flashing. Also unlike the adults, the children on a few occasions justified their choice of the advertisement by saying they had seen it before (even though this could not have been the case). In summary, the pattern of 11-year-olds' reasons for identifying the advertisements was not dissimilar to the pattern of the adults' responses, but there was a noticeable difference in the way the adults referred to dissimilarities between the advertising image and the other images – this strategy was hardly used at all by the 11-year-olds.

The 9-year-olds gave more reasons based on describing what they could see in the image, or they claimed to have seen the advertising image before. The most common reason from the 9-year-olds was that the wording indicated the image was an advertisement. Only a few of the children mentioned that the advertisement was trying to sell something. The 9-year-olds never compared the style of the advertisement to the other images on the page, and none of the children suggested it could be an advertisement because it was flashing.

Half the reasons given by the 7-year-olds involved just describing what they could see in the image or claiming that they had seen it before. Only a few of these children referred to the wording of the image or mentioned persuasive intent. In other words, the 7-year-olds provided only a small number of effective strategies for identifying the advertisements.

As noted above, on the pages without advertisements the children sometimes incorrectly selected one of the images as an advertisement. Children were shown these a second time and asked why they had chosen them. There were ten images, or 'non-advertisements', on each of the pages without advertisements, and the children chose many different

non-advertisements. Therefore, when they were asked their reasons for selecting the image, different children discussed different images on the web pages. Hence, the reasons they gave may have been specific to a particular image. Nonetheless, we attempted to summarise the children's reasons for incorrectly selecting a non-advertisement using the same categories as above, and also noted any particular reasons the children gave to explain their choices. We expected that some justifications for choosing an image on the pages without advertisements would be less likely because they would not relevant. For instance, it seemed unlikely that children would refer to an image having the style or wording of an advertisement because, of course, none of the images on these pages were designed to look like advertisements. It also seemed less likely that children would make many contrasts between the images they incorrectly chose as advertisements and the rest of the page because none of the images should have stood out as advertisements. We assumed the children would mostly rely on other reasons for incorrectly choosing an image on the pages with no advertisements, and this was the case.

The most frequent response given by both the 7-year-olds and the 9-year-olds when they had wrongly chosen a non-advertisement was just to describe what they could see in the image and then simply go on to say that the image was an advertisement. Another frequent explanation, especially by the 7-year-olds, was that they thought they had seen the image before and so, because they thought they recognised the image, it was an advertisement. The 11-year-olds also sometimes relied on describing the images or on saying the images were familiar, but unlike the other age groups, the majority of 11-year-olds' explanations focused on the persuasive nature of the image. A small number of responses from each age group referred to the information contained in the image. As expected, virtually none of the children said they chose an image because it had the style of an advertisement or wording similar to an advertisement, or that the image contrasted with the rest of the page. Only five children overall said an image was an advertisement because it was flashing.

Since the older children's strategies led them to draw incorrect inferences about the images on the pages without advertisements, we looked at the responses of the 11-year-olds in more detail; children of this age group not only would have had several years' experience of looking at web pages but should have been old enough to have a good understanding of advertising, at least in other media. As noted above, the most frequent justification given by 11-year-olds for choosing a non-advertisement as an advertisement was that the image wanted people to buy something or spend money. For example, some 11-year-olds

suggested that a page showing images of people from Chinese national minorities was to encourage anyone looking at the pages to buy the costumes the people were wearing, or that pictures of natural scenery were to get people to visit the places shown. But in no case did the images the children chose have any indication of being an advertisement (e.g., advertising slogans, price information or similar indicators).

At the end of this experiment, the children were asked a set of questions about advertising, including questions such as 'What is an advertisement?', 'Why are there advertisements on television?' and so on. Children's performance was classified as follows: If a child said 'don't know' or that advertisements were 'to give us a rest', he or she was classed as having no understanding. If a child gave answers like 'to tell us what's in the shop', he or she was classed as understanding the informational content of advertising. If children answered 'to get us to buy it' or 'it wants to sell products', they were classed as understanding the persuasive intent of advertising. All the 11-year-olds and all but one of the 9-year-olds understood persuasive intent, as did three-quarters of the 7-year-olds. Therefore, the majority of children in this experiment did appreciate the persuasive nature of advertising, but, as we have described above, they were not always very good at distinguishing advertisements and non-advertisements on the web pages. In contrast to the television research which has shown that children can distinguish advertisements before they understand persuasive intent (Gunter et al., 2005), our experiments with web pages showed that children who were old enough to explain the purpose of advertising could not always work out what an advertisement was on a web page.

Taken together the findings described above indicate that children, especially younger children have difficulty distinguishing what is and what is not an advertisement on a web page, and younger children in particular do not have any effective strategies for deciding between advertisements and non-advertisements. Before discussing the implications of this finding, we will consider another way that children may come across advertisements on web pages.

Distinguishing advertisements and non-advertisements on search engine pages

Children, like adults, will frequently come across advertisements when they are searching for information or pages on the web. In 2010, paid-for search advertising was worth more than half the total UK online advertising market (Internet Advertising Bureau, 2011). Advertising revenue

is crucial to a search engine (Jansen & Mullen, 2008); for example, in 2010–11, Google made 97 per cent of its revenue from advertising (Kim, 2011). Oblinger and Oblinger (2005) found that the Internet was the preferred shopping location amongst the 'Net generation', and attracting children who may then become lifelong users of a search engine is an important aim (Chan, Wu & Xie, 2011).

Advertising on search engine pages may be particularly difficult for children to identify because advertisements are immersed in informative content. Search engine advertisements often appear in the same format as the information the child was looking for, which may make them difficult to identify, and many of the terms used in an advertisement may be the same as those used for the search. Google uses a keyword-based advertising method which enables advertising content to be tailored to the customer and their search (Gopal, Li & Sankaranarayanan, 2011). The interactivity function of search engine advertisements means that unlike television advertising, search engines' advertisements can be clicked on straight away and lead to further advertising and to retail websites. As search engines themselves can provide a purchasing function as well as being informative, this further blurs the boundaries between advertising and content.

Children use search engines regularly, for both educational and entertainment purposes (Iwata, Arase, Hara & Nishio, 2010), and the second most popular search by children is 'Google' (Norton, 2010). Spink, Danby, Mallan and Butler (2010) found that irrespective of young children's spelling abilities, children used search engines frequently for classroom tasks. Children aged 5–6 years were observed using search engines to find educational information (such as looking for information about endangered species), and the children could sometimes perform complex web search interactions as well as adults did. For instance, the children were capable of keyword searches, making judgements about the relevance of search results and formulating effective queries. This suggests that young children are competent at using a search engine, but it is not known whether they are also competent at recognising the advertising on search engine pages because previous researchers have not investigated children's awareness of such advertising.

To find out when children become aware that there are advertisements on search engine pages, Megan Pickering tested three age groups, with nearly 60 children in each group. The children were aged 8, 10 and 12 years and were from schools in the United Kingdom. All the children had access to computers in school and access to a computer with the Internet at home, with more than a quarter of each age group

having their own computer at home and using it independently. All the children said they used search engines at least once a week, with approximately half of each age group claiming they did so several times a week. A few of the 8- and 10-year-olds and a third of 12-year-olds said they used search engines every day. Children's use of search engines was self-reported and may not have been completely accurate, but all the children were familiar with the term *search engine* and what it meant to search for information on the web.

Four different templates were designed to mimic the search result pages of four frequently used search engines in the United Kingdom. These were Google, Bing, Yahoo and Ask (Experian Hitwise, 2011), and they were given the invented names 'Foozie', 'Teng', 'Kazoo' and 'Find', respectively (see example in fig. 11.1). Six web pages were created for each search engine, making a total of 24 pages. Half the pages were designed to look like the outcome of searches for an educational topic (for example, 'the water cycle'), and the other half looked like the outcome of searches for topics taken from those listed as the most popular searches in 2009 (Norton, 2010). Half the pages included text and pictures, and half were just text.

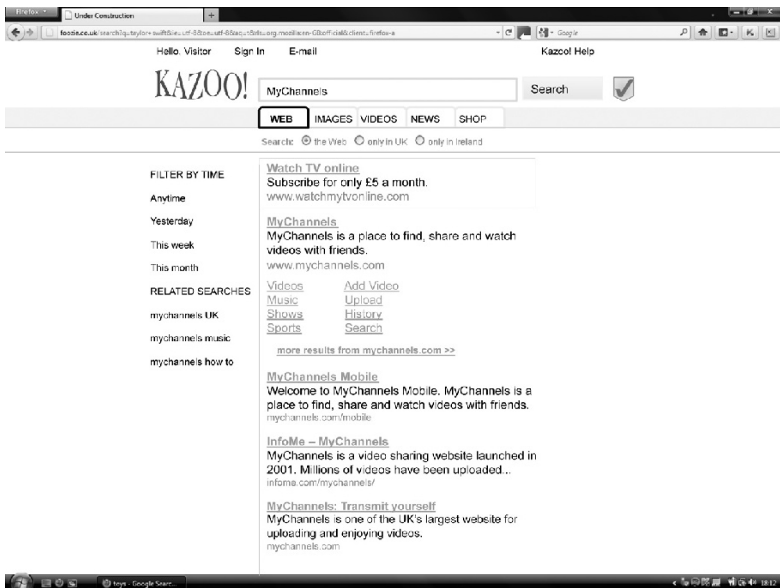

Figure 11.1 Example of an invented search results page.

Each of the search result pages included an advertisement. The pages were divided into six areas, not including the top search bar and options. For each search engine, the advertisement appeared in each of the six areas. This was so advertisements appeared equally often on different parts of the page. The advertisements were invented ones, as were any brand names included, so the children could not complete the task just by recognising familiar products. As on actual pages, the wording on the advertisements was written to persuade and included words like 'free', phrases like 'sign up now', exclamation marks and prices. In contrast, all non-advertisements on the page were written to be factual and informative, with nothing that might indicate they were advertisements. Twenty adults were shown the pages and all 20 of them correctly identified all of the 24 advertisements.

The web pages were then shown to the children one at a time, on a laptop computer. They were first given a practice web page which was similar to the ones in the experiment but included only three search results and one advertisement. The children were told they were looking at a page a bit like Google. They were also told there was an advertisement on the page and were asked to point to it. All the children understood the nature of the task by pointing to a place on the screen. Then the children were shown all 24 pages and were told there was one advertisement on each page and were asked to find it. Children were given enough time to look at and read each page.

The children were told that if they could not find the advertisement or were not sure where it was, it was all right to say, 'I don't know', but in fact the children rarely said 'don't know'. The number of 'don't know' answers was, on average, less than one per child. In other words, most of the children did try to identify the advertisement on most of the web pages. However, despite trying to find the advertisements, the children were not very accurate.

The 8-year-olds correctly identified a mean of 4 advertisements (out of 24) and incorrectly identified 17 non-advertisements. The 8-year-olds performed significantly less well than the 10-year-olds, who correctly identified a mean of 13 advertisements but also incorrectly identified 10 non-advertisements. The 10-year-olds were significantly poorer than the 12-year-olds, who identified a mean of 17 advertisements and incorrectly identified 7 non-advertisements. Not surprisingly, the older the children, the better their performance; but even the oldest age group, the 12-year-olds, only identified two-thirds of the advertisements, which was much poorer than the completely accurate performance of the adults. Despite all the children being told it was acceptable to say 'don't know',

the 8- and 10-year-old groups pointed to many non-advertisements, and even the 12-year-olds pointed incorrectly on a quarter of the web pages.

These results showed that the children had difficulty distinguishing what was and was not an advertisement on a search engine page. Although the younger children, given their poorer reading abilities, may have had difficulty interpreting all the information on the pages and identifying the advertisements, it is unlikely that the oldest children, the 12-year-olds, would have been unable to consider all aspects of the pages. The latter age group were able to find two-thirds of the advertisements, which demonstrated that they understood the nature of the task, but the many mistakes this age group made also showed that they were confused about the presence or absence of advertisements on the pages. We emphasise that the adult group had no difficulty identifying the advertisements and did not mistakenly point to non-advertisements. We can conclude that even though children regularly use search engines and have to interpret the results shown on the page, they will not be always be able to distinguish what is a marketing message from the rest of the page.

Conclusions

One step in becoming aware of marketing messages is being able to distinguish between messages that are advertisements and ones that are not. From studies carried out mainly 30 years ago, researchers established that children could identify what is a television advertisement and what is a television programme with consistent accuracy by 6 years of age (Levin et al., 1982). Our research on television advertising has shown that the results from studies like Levin et al.'s are still valid for contemporary children and that 6-year-olds are very good at distinguishing advertisements from other material on television. Somewhat later, children start to understand that television advertising has a persuasive intent (Oates et al., 2002).

In marked contrast to children's ability to distinguish television advertisements, we have shown that 6-year-olds are poor at distinguishing advertisements on web pages and that even much older children (10- and 12-year olds) may be confused about what is and what is not an advertisement on a web page (Ali et al., 2009); and in the study we carried out in China, described above, it was clear that children were not consistently correct in identifying advertisements and non-advertisements at 11 years. This means that even older children may not always be aware of whether or not they are looking at an advertisement on a web page.

We emphasise that in all these studies, adults were almost perfect in the sense that they always identified the advertisements and never mistakenly pointed to a non-advertisement. When we analysed the cues that participants said they used to identify an advertisement, it was clear that children, especially those under 11 years, had limited strategies for identifying a web page advertisement. The adults mainly looked for indications of persuasive intent and considered an advertisement in the context of the whole page and whether its style or content contrasted with the other images on the page. This has implications for teaching children about web advertisements, because we suggest that if children are taught appropriate strategies, it may help them identify web advertisements more effectively.

Distinguishing advertisements on search engine web sites is also difficult for children. Such sites are mainly text and therefore require a certain level of reading ability, so not surprisingly in the study described above, 8-year-olds were very poor at distinguishing advertisements and non-advertisements on a search engine site, but even 10- and 12-year-olds identified only a proportion of the advertisements and were likely to wrongly point to a non-advertisement. This is an important finding because children use search engines from an early age and a search engine is an essential entry point for accessing the web. But it is clear from our research that children have only a limited idea about whether they are reading neutral information or being presented with marketing messages on the pages which show the results of their search. We suggest that this is one aspect of children's Internet use which requires more research and attention, because we assume that if children cannot identify the purpose and intent of the messages they are reading, they may be more vulnerable to the effects of advertising.

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12
The Influence of Advergames on Children's Consumer Choices and Behavior

Amanda E. Staiano & Sandra L. Calvert

Children as a market have come of age. Youth ages 2 to 17 in the United States spend approximately $250 billion per year, and 2- to 14-year-old US youth influence an additional $500 billion per year in family spending (see Calvert, 2008). In an increasingly digital world culture, youth now spend a considerable amount of time online (Rideout, Foehr & Roberts, 2010). Businesses are following them to these online spaces, coming up with new ways to reach children through entertainment technology (McGinnis, Gootman & Kraak, 2006). One such route is the advergame, a video game with either subtle or overt messages designed to persuade users to purchase and consume specific products (Calvert, 2008; Staiano & Calvert, 2012).

In this chapter, we examine advergames, their properties, and the characteristics that are intended to sell products as well as the kind of products that are being sold to children and youth. Then we turn to theories of development that describe how advergames are predicted to influence consumer behavior. We examine the scant research evidence on the effects of advergame exposure on children, youth, and adults. We discuss ethical, policy, and legal considerations in the use of advergames. We end with future research directions and our closing remarks.

The emergence of advergames

Advergames, a combination of advertising and online gaming (Casey, 2005), is one of the newest and hottest mass media marketing strategies (Kretchmer, 2004). Mizerski (2009) describes advergames as "masked

marketing," defined as "marketing communications that appear not to be marketing communications . . . (and) may be masked as to their commercial source, their message or both." Advergames are popular with children, are cheap to deliver, ensure visual attention, provide an immersive environment, and have few legal restrictions, making them a marketer's dream.

Children and youth are heavy media users, investing much of their free time in front of a screen playing games (Calvert, 2005). The advent of advergames comes at a time when the Internet is becoming a pervasive medium in children's daily lives. For instance, Rideout et al. (2010) reported that 93 percent of 8- to 18-year-old US youth have a computer at home, and 84 percent have home Internet access. Children and youth in the United States spend a large portion of their time each day on the Internet, on average 46 minutes for 8- to 10-year-olds, 1 hour and 46 minutes for 11- to 14-year-olds, and 1 hour and 39 minutes for 15- to 18-year-olds. Game play is one of the most prevalent online activities. On average, youth spend 17 minutes per day playing online games, and this amount of time is significantly higher for boys (25 minutes) than girls (8 minutes). Overall, the NPD Group (2007) found that 2- to 17-year-old youth who play computer games invest between 6 and 16 hours or more per week.

Online gaming is quickly becoming dominated by marketed products. Even in the infancy of advergaming, 98 percent of children's websites allowed marketing, with two-thirds of children's sites using marketing as primary revenue (Neuborne, 2001). Estimated expenditure on advergames in the United States alone was $264 million in 2006 (Johannes & Odell, 2007). Even with this investment, advergames cost a fraction of the expense required to reach an audience when compared with television advertisements. Once a website is created, there are no further advergame distribution costs unless one updates the game. By contrast, traditional television advertisements result in a charge every time one is broadcast on the public airwaves (Bertrim, 2005). An advergame might cost less than $2 per thousand users, versus $7 to over $30 per thousand viewers for a television commercial (Pereira, 2004).

In addition to their attempts to save marketing dollars, advertisers want "eyeballs on-screen" so that the target audience will see their messages. When one is playing an advergame, looking at the screen is virtually guaranteed. In addition, advertisers can know how long the user is engaged with the brand, as exact behaviors can easily be tracked.

Advergames provide an opportunity to immerse a player into a brand and promote a sense of control over the gaming experience (Nelson, Keum & Yaros, 2004). For example, one of the most popular sites on

the web was Candystand, sponsored by Kraft Entertainment. In Fruit Stripe Photo Safari, the most popular game in Candystand, players took photos of onscreen wildlife that went into a photo album. Bonus points were awarded for good pictures (Gardner, 2000). Similarly, children could use points awarded for game playing to buy foods such as Uh Oh Oreo cookies to feed their virtual pets at Neopets.com (Fonda & Rosten, 2004). Such gaming techniques are designed to immerse the child in the brand, which, in turn, should enhance memory and create favorable attitudes about specific products (Calvert, Bond & Staiano, 2013).

Product placement, in which a marketed good is presented within program content so it does not seem to be an advertisement, is often found in advergames (Calvert, 2008; Eisenberg, 2002). For example, whenever players ran over Coke cans in a basketball advergame called *Live the Madness*, players could run faster and jump higher to dunk the basketball (Mack, 2004). The implicit message was that drinking Coke makes you a better athlete (Calvert, 2008).

Both advergames and product placement attempt to fly under the radar so that a player takes an entertainment frame of mind rather than putting up defensive guards in which the seller's motive might be questioned (Calvert, 2008). Older child consumers tend to be skeptical of advertising, but if the information appears to be independent of the marketing message, then the skepticism diminishes (Mizerski, 2009). Mizerski (2009) describes masked marketing as particularly effective on young children, who find it difficult to identify the source of the message and to realize the source's persuasive intent. Consequently, advergames raise numerous ethical issues, such as whether children know the underlying purposes of the games.

Although advergames may well be challenging for young children to understand, legal restrictions and regulations about advergames are sparse (Pempek & Calvert, 2009). Television has restrictions about the amount of time that commercial messages can be marketed to children, but no such restrictions exist for children when they are online (Calvert, 2008). Therefore, a "sticky" website (i.e., one that holds the attention of the visitor) can keep children involved through fun and interesting advergames with the commercial content for long, sustained periods, with no legal constraints on exposure time.

Content analyses

Content analyses of online marketing practices reveal patterns similar to those found in television advertising content. In particular, the

marketed products directed at children are often foods that are high in calories and low in nutritional value, and attention-getting production techniques are used to garner and sustain interest by players (Calvert, 2008). Because obesity is a serious issue in childhood and can lead to serious health problems, including adult obesity, type II diabetes, and cardiovascular risk factors (McGinnis et al., 2006), foods that are marketed in children's advergames are highly scrutinized.

Moore and Rideout (2007) found that 73 percent of 77 popular food websites directed at children used advergames. These websites had a total of 49 million visits per year by 2- to 11-year-old children, thereby providing considerable exposure to the marketed products. The products on these sites were predominantly sugarcoated cereals. Advergame brand identifiers included logos, food items, product packaging, and branded characters. Advergames used engaging gaming techniques, such as individual scores (69 percent), multiple levels of challenge (45 percent), time limits to win (40 percent), and the ability to customize a page (39 percent). The production features in the games included animation, music, and sound effects, techniques that are highly effective in gaining children's interest in television commercials (Calvert, 2008).

In one analysis of children's sites, of the top 40 most popular children's food and beverage brands, Weber, Story, and Harnack (2006) found that 100 percent of the sites contained advergames. Interestingly, nearly all sites featured a cartoon character (96 percent) or spokescharacter (91 percent). Spokescharacters are often used in advertisements to promote a fun and friendly environment for children, and these characters significantly improve a child's opinion of a product (Montgomery, 2001). Practices intended to maintain children's interest were also prevalent, including contests and sweepstakes intended to promote consumption and purchases.

In a content analysis of advergames, Lee, Yoonhyeung, Quilliam, and Cole (2009) found that most advergames marketed to children promoted high-calorie, high-sugar foods. Candy and gum (28.6 percent) were the most frequently marketed products, followed by cereals (19.5 percent), soft drinks (9.5 percent), and salty snacks (7.5 percent). Not surprisingly, 83.8 percent of these food products were low-nutrient foods: 59.5 percent were high in sugar, 30.3 percent were high in fat, 5.6 percent were high in sodium, and 2.1 percent were high in cholesterol. Advergames also integrated the brand as active game components so that children could play with virtual food products. Although interactive games have the opportunity to promote educational benefits, fewer than 3 percent of advergames in this sample educated children about

health or nutritional issues, 2.7 percent taught about product characteristics, and 1.4 percent of advergames taught children other subjects, such as the alphabet. Brands were also central to the structure of advergames and used as tools within game play in 69.1 percent of the sample. For example, in an advergame titled *Save the Day* sponsored by the Popsicle brand, one could shoot enemies using a Popsicle ship. Additionally, 46.7 percent of these advergames used brands as the goal of the game, and 22 percent used brands as a secondary object that provided bonus points if collected. The authors concluded that advergames seek to increase awareness of and loyalty to the brand or product, which is often a high-sugar, high-calorie food item (see Chapter 4).

Theoretical explanations for children's advergame play experience

Because of age-related differences in children's understanding of the intent of traditional televised advertisements, theoretical approaches used to frame marketing research often take a developmental approach. Classical conditioning, which relies on association and contingency as mechanisms to improve learning about, and liking of, a product, provides an alternative model for understanding the impact of advergames on consumer choices that is not dependent on age.

According to the *developmental model of children's cognitive processing of Internet advertising* (McIlrath, 2006), whether children can distinguish commercial from noncommercial online content depends on their developmental abilities, their cognitive defenses against advertising, and their ability to understand persuasive intent and attribute this to Internet marketing practices. One key aspect of this developmental model is children's understanding of persuasion (McIlrath, 2006). In the *persuasion knowledge model*, a user develops the skills to recognize and identify a media message as being persuasive and commercial (Friestad & Wright, 1994). This knowledge allows them to counterargue, scrutinize, discount, and reject the message (McCarty, 2004) and is acquired through age-related changes and socialization (Lee et al., 2009). Moreover, advergames may continue to exert influence over children's choices, regardless of age, because an advertiser can incorporate the commercial message into a fun gaming experience in the hope that the user will enjoy the game and thus not reject or resist the marketed product.

In the *information processing model,* product placements are thought to be processed differently than traditional advertisements. In particular, most of the player's attentional and processing resources are used

to encode and store the main message of the media, which may be a storyline or goal within the game that is unrelated to the branded product (Friestad & Wright, 1994). This distraction makes it less likely for children to develop the persuasion knowledge that this is in fact an advertisement, which means that children do not operate defenses that protect them from the marketed message (Edwards, Li & Lee, 2002). Thus, they are learning the marketed message as an incidental by-product during gaming. Therefore, it is easier to insert commercial messages that may otherwise be rejected or ignored by users, particularly among young players who have not yet developed persuasion resistance (Grigorovici & Constantin, 2004).

Cognitive theories also separate explicit, conscious processing of messages from implicit, nonconscious processing. Immersive gaming experiences can promote implicit learning through classical conditioning. For example, associations are formed between stimuli, such as the positive emotions elicited during game playing, and a response, such as feeling positively about the brand that was experienced during game play (Grigorovici & Constantin, 2004). Using multisensory and experiential immersion that pushes the viewer to be "present" within the game (Grigorovici & Constantin, 2004), advergames that employ product placements seek to influence viewers without their conscious knowledge—that is, through implicit processes—that the game is a commercial message (Balasubramanian, 1994). The commercial message of the advergame is thus disguised, resulting in players who are conditioned to like a product without being consciously aware of why they feel that way (Nebenzahl & Secunda, 1993).

In summary, age-related differences in how children understand commercial intent (i.e., that advertisements are designed to persuade them to purchase a product) are key facets of developmental and persuasion theories. Information processing and persuasion theories provide frameworks that explain how marketers can distract children from thinking about a marketer's intention to sell, even when children are old enough to understand those motives. Classical conditioning, which relies on implicit learning, uses contingency to create positive feelings for a brand.

Effects of advergames on children's and adults' attention, memory, attitudes, and behaviors

Very little empirical research exists on the effects of advergames on players, and particularly children. Therefore, we include research on adults as well as children in this section.

Attention

The constantly changing experience within an advergame promotes a variety of emotions within game play, including curiosity, surprise, and suspense, all of which arouse players' senses to sustain attention (Grodal, 2000). Classical conditioning, which associates the game-play experience with the branded product, hinges on children paying visual attention to the game. However, few studies in the extant literature concern children's visual attention during advergame play. One study found that low-income 9- and 10-year-old children played a Pac-man advergame for an average of 9.5 minutes per child in one bout of game play (Pempek & Calvert, 2009). Although time spent in an activity is a rough index of visual attention, one can infer that: (1) children did look at the computer screen a considerable amount of time because attention was necessary to play the advergame, and (2) the average amount of time spent playing the advergame was far longer than would be possible if one were watching a cluster of 15- to 30-second children's television advertisements in which exposure time is often regulated, at least in the United States and the United Kingdom.

Children also provide self-reports of their attention to advertisements. In 2002, 85 percent of 13- to 54-year-old US citizens reported seeing advertisements on Internet sites, but only 30 percent of 13- to 17-year-olds reported paying attention to advertisements on a website, and 34 percent reported paying attention to a product in a computer game (Gardyn, 2002). By contrast, 80 percent of 13- to 17-year-olds reported paying attention to television advertisements, 62 percent to magazine advertisements, and 55 percent to freestanding outdoor billboards. Notably, at the time of the study, three in five adolescents did not even know what an advergame was (Gardyn, 2002) and hence may have underestimated their exposure. These exposure numbers may also have increased as Internet advertising continues to expand.

According to the developmental model of how children process Internet advertising, understanding the commercial intent to sell is an age-based skill. At what age children can understand the intent of a marketed message is a topic that has been widely studied in the television literature due to ethical questions of fairness (Wilcox et al., 2004). Children's understanding of commercial and noncommercial television content emerges slowly, preceding their understanding of the persuasive intent of commercials. Before the age of 4 to 5, children show difficulty differentiating a program from commercials (Wilcox et al., 2004). Before the age of 7 to 8, children show difficulty identifying the persuasive intent of an advertisement, and before the age of 12, children have difficulty

guarding against an advertiser's persuasive intent (John, 1999). When commercial messages are combined with entertaining games, children may become especially vulnerable to the commercial messages (John, 1999). In fact, advergame sites often have different domains from the corporate website, which seemingly disconnects the brand from the company and may further blur the distinction between content and advertisement (Dahl, Eagle & Báez, 2006).

Both the developmental and persuasion knowledge models suggest that the intent of advergames is particularly difficult for children to understand. In the one empirical study on this topic, McIlrath (2006) randomly assigned 5- to 7- and 9- to 12-year-old children to a banner, pop-up, or advergame condition. Children were then assessed for: (1) discriminating commercial versus noncommercial content and (2) attribution of persuasive intent. All children had only moderate ability to discriminate commercial content online, and all children showed more difficulty identifying advergames as commercial content when compared to pop-up and banner advertisements. Although older children could identify noncommercial content more so than younger children, they did not perform better in identifying commercial content. However, prior experience with the Internet predicted the ability to differentiate between commercial versus noncommercial content. Most younger children (84 percent) presented a limited understanding of persuasive intent, whereas only 40 percent of older children failed to understand persuasive intent, with 38 percent reporting the highest level of understanding persuasive intent. In a laboratory setting, when presented with the advertised snack choice of Welch's fruit snacks versus the nonadvertised choices of Skittles or raisins, at baseline the majority of children (71 percent) chose a nonadvertised product. After exposure to advertisements, snack choice significantly changed such that half the children chose the advertised product. However, understanding persuasive intent and remembering the product did not predict whether children reported liking the food, requested the food, or chose the marketed product to eat after the experiment. Although this study provides partial support for the developmental and persuasive models, it is unclear that knowledge of persuasive techniques is enough to protect children against the behavioral influences of advergames.

Memory of advergame products

For marketing to influence behavior, children must remember the product at some level. Some researchers predict that playing advergames will

result in lower product recall than seeing a brand in a traditional form of advertisement. This inferior memory is predicted because the act of playing the advergame draws on cognitive abilities, including memory, which is thought to detract attention from the branded product within the game (Grigorovici & Constantin, 2004). However, Winkler and Buckner (2006) found that advergame play produced high recall among German adult male players, particularly when products and brands were familiar to the players. Players who answered an online survey after playing an advergame could remember many details of the game, including where the logo was located within it. The authors suggest that advergames can increase positive brand impression but may not be as effective in introducing a new brand to promote brand awareness.

Advergames may in fact improve product recall compared with other online advertisement strategies. After playing both an advergame and a game that contained banner advertisements, 32 percent of young adult gamers could recall the advergame brand, versus only 3 percent who recalled the banner advertisement (Deal, 2005). Moreover, in a recognition task in which players identified which brand was seen, 57 percent of players remembered the marketed advergame product and only 14 percent remembered the banner advertisement.

Brand prominence also increases product and brand recall (Schneider & Cornwell, 2005; Chaney, Lin & Chaney, 2004). Players' explicit memory, i.e., information that is consciously remembered, improved when the brand was centrally featured within an advergame (Peters, 2008). Brand prominence was also positively related to brand recall in a study of Belgian adults who played an advergame, and this relationship was independent of the player's attitude toward the brand (Cauberghe, 2008). Brand prominence resulted in 37.1 percent brand recall, compared with a subtle placement that produced only 2.5 percent recall. Game repetition did not increase recall. However, playing the game twice produced more positive attitudes toward the brand than repeating it four times.

Players' implicit memory—i.e., nonconscious memory of information without intentional recollection—can also be improved through specific advergame features, such as when the game is thematically relevant to the brand (Peters, 2008). After playing a car-racing game or a soccer game, for instance, college-aged students scored higher on a word-fragment test for the brand names that were placed in the background of the advergame when compared to a control group of students who did not play the advergame (Yang et al., 2006).

Attitudes

Marketers want consumers to have favorable attitudes toward their products so that they will buy them, employing classical conditioning techniques so that a player associates a positive game-play experience with a positive attitude toward the marketed product. Attitudes toward advertising in general may affect players' attitudes about advergames. People who report negative attitudes toward advertising, for instance, also typically report negative attitudes toward advergames (Nelson et al., 2004). Similarly, positive attitudes toward advertising in general are weakly related to positive attitudes toward advergaming (Winkler & Buckner, 2006).

Features within the game itself may affect a player's attitude toward the branded product. For instance, increased realism and making branded products subtle rather than central to the game may increase the impact of advergames on consumer behavior (Nelson et al., 2004). A netnography (ethnography of the Internet) that analyzed over 800 postings by online games on a popular technology blog revealed that when branded products were realistically displayed, players reported increased positive attitude toward the product (Nelson et al., 2004). Also, when gamers had a more positive attitude toward advertising in general and toward product placement within games, they also had a more positive attitude toward the product.

Thematic relevance between the game context and the branded product further affects a player's attitude. Wise, Bolls, Kim, Venkataraman, and Meyer (2008) found that after only five minutes of advergame play that was thematically connected to a branded product, adult players reported a more positive attitude toward both the game and the advertised product compared with baseline scores. By contrast, this change in attitude was not found for participants who played a game that was not thematically connected to the branded product. The researchers theorize that players are being conditioned to associate the positive attitude and affect of game play with a positive attitude toward the product, a classical conditioning effect.

Hernandez, Chapa, Minor, Maldonado, and Barranzuela (2004) found a similar link between thematic relevance and attitude for Hispanic college students. Specifically, using a game storyline that was congruent with the branded product and placing the branded product in the periphery of the screen resulted in positive attitudes toward the advergame. By contrast, using an incongruent game storyline that was not relevant to the branded product resulted in negative attitudes toward the brand.

Behavior

The ultimate goal of advergames is to influence consumer behavior. We know very little on this topic. In one experimental study, Pempek and Calvert (2009) had low-income African American 9- to 10-year-old children play a modified Pac-man game as an advergame for about ten minutes. Pac-man is a character comprised of a head with a mouth that is viewed from a sideways perspective as he moves through a maze. Our advergame was structured so that the Pac-man character was rewarded for consuming healthy snacks and punished for consuming less-healthy ones, or rewarded for consuming less-healthy snacks and punished for consuming healthy ones. After playing the advergame, children selected and ate a snack consisting of a choice of beverage (orange juice or soda) and food (banana or chips). A control group chose a snack before playing the advergame. As expected, children who played the advergame where Pac-man was rewarded for consuming healthier snacks and punished for consuming less-healthy snacks were more likely to choose and eat healthier snacks. By contrast, those who played the advergame where Pac-man was rewarded for consuming less-healthy snacks and punished for consuming healthier snacks were more like to choose and to eat unhealthy snacks. The control group fell in the middle of these two means. The implication of this study is that advergames can shift children's choices and consumption patterns to healthier foods and beverages.

Advergames influence food choices even when the children realize that the marketed food is less healthy than alternative choices. For instance, Mallinckrodt and Mizerski (2007) had 5- to 8-year-old children play a Froot Loops cereal advergame that claimed health benefits of cereal over fresh fruit and compared them to a control group. Although the treatment group did not believe that Froot Loops were healthier than fresh fruit, children still preferred and chose the Froot Loops brand significantly more than other cereals or food types.

Indeed, a positive attitude toward advergames is positively correlated with purchase behavior. Nelson et al. (2004) surveyed adult gamers and found that when branded products were prominently featured, the players reported increased learning about the product and increased likelihood to purchase the product. Moreover, gamers' positive attitude toward product placements was related to greater likelihood of purchasing the product. Gamers cited actual instances in which they purchased a branded product after playing an advergame about it.

Ethical concerns

The Internet is a vast space that is largely unregulated. The heavy use of the Internet by youth poses particular risks, including those that are encountered in the realm of online marketing.

Unlimited exposure

Time limits on exposure to commercials and clear separation of commercial and program content are required during television programs (FCC, 1974), but not on the Internet (Calvert, 2008). Indeed, children's advergames are built to promote sustained play with specific products, such as the silly rabbit from Trix cereal (Moore & Rideout, 2007).

Collecting personal information and tracking play experiences

Demographic information of users can be easily collected online, including the number of hits, time spent on specific sites, and repeat visits (Moore, 2006). Websites use quizzes to find the food product that best matches the child's personality (FTC, 2008). Privacy concerns abound when considering what marketers might do with personal information that a child provides.

Pressure to purchase

In addition to promoting particular products, advergames promote sets of values, including a culture of consumption (Casey, 2005). To promote consumption, advergames are surrounded by a plethora of marketing tactics that include game play (game rankings and scores, game updates), sweepstakes, clubs, recipes, commercials, newsletters via user registration, and tracking where players are going online and what they are doing (Casey, 2005; Weber et al., 2006). Virtual currency is available on some advergames so that players can purchase digital merchandise, including screensavers, instant messenger icons, and clothing for onscreen avatars (FTC, 2008). Advergames also operate in real-world situations, such as those where an avatar can visit a virtual grocery store to shop for the food product being marketed (FTC, 2008).

Another tactic is to provide special privileges upon purchase. Many children's websites in the United Kingdom have required product purchases to play the game, including one site that required purchases to play any of the games on the site (Dahl et al., 2006). If one purchases certain products, some advergames in the UK and the United States also provide access to codes that improve game performance (Dahl et al.,

2006; FTC, 2008). These games often extend the experience beyond game play by offering downloads, including screensavers and computer games, to entice further interaction with the brand outside of advergame play (Dahl et al., 2006). The acquisition of a particular food product is also the goal of certain advergames, and often the real product becomes the reward for successful game play (FTC, 2008).

Advergames can be targeted to certain demographics through viral marketing, using such motivating factors as competition for the highest score and collaboration to join a multiplayer game. Of recipients of promotional e-mails, 16–45 percent will play a game for an average of 25 minutes (Kretchmer, 2004). Ten of the 13 websites analyzed by Dahl and colleagues (2006) used viral marketing by incentivizing users to invite friends or send e-cards to join the website. Of the ten websites that used viral marketing, seven were prominent and located on multiple pages throughout each website. Receiving an e-mail from a friend increased participation, with 90 percent of those receiving a viral marketing e-mail responding (Rodgers, 2002).

Vulnerable subgroups

Younger children below age 8 are more vulnerable to marketing messages than are older youth due to age-related differences in understanding commercial intent (Calvert, 2008). Particular subgroups of children may be especially vulnerable to advergames due to the duration and frequency of time spent playing these games. For instance, in the United States, Internet time use is particularly high for Hispanic (1 hour and 35 minutes) and black youth (1 hour and 25 minutes), compared with white youth (1 hour and 17 minutes) (Rideout et al., 2010), perhaps making ethnic minority groups at risk. Boys in the United States also play computer games for significantly longer time periods than girls do; boys play the most during their preteen years, and girls' game play declines as they get older (Rideout et al., 2010). In a study of low-income 9- and 10-year-old African American children, 36 percent of girls visited food websites, but none of the boys did (Pempek & Calvert, 2009).

Potential regulatory mechanisms

Unhealthy food marketing to children is an enormous public health concern and has raised worldwide calls for regulatory and industry action to protect young consumers (Harris, Brownell & Bargh, 2009; Staiano & Calvert, 2012). Self-regulation, rather than legal restrictions, has often been the mode of choice, particularly in the United States

where the First Amendment guarantees freedom of speech, including commercial speech.

Self-regulation and regulation in the United States

A self-regulatory advertising body within the United States is the Children's Advertising Review Unit (CARU), administered by the Council of Better Business Bureaus. CARU uses the following guideline: "On websites directed to children, if an advertiser integrates an advertisement into the content of a game or activity, then the advertiser should make clear in a manner that will be easily understood by the intended audience that it is an advertisement" (Quilliam, 2009). Despite their guidelines, a content analysis of the 40 most popular children's food and beverage brands' websites found that only 22 percent of the sites contained an "ad break" or similar notifier indicating that the advergame was an advertisement and not purely entertainment (Weber et al., 2006).

The Children's Food and Beverage Advertising Initiative (CFBAI), sponsored by the Council of Better Business Bureaus, also favors voluntary compliance. Several participating food and beverage companies pledged, "Participants will commit that, in any interactive game primarily directed to children under 12 where the company's food or beverage products are incorporated into the game, the interactive game must incorporate or be accompanied by products representing healthy dietary choices or healthy lifestyle messaging" (Quilliam, 2009). Four food companies, Cadbury Adams, Coca-Cola Company, Hershey Company, and Mars, Inc., pledged that they would not market to children. In a content analysis of children's television advertisements, Kunkel, McKinley, and Wright (2009) found that these companies kept their pledge. Eleven additional US-based food companies pledged to only promote foods that were considered healthy and to accompany food advertisements with messages that promote exercise and good nutrition. However, there is disagreement, even within the food company industry, on what a healthy food is. Moreover, online content, such as advergames, was not examined in the content analyses conducted by Kunkel et al. (2009).

Using the Nutrition Standards for Foods in Schools guidelines developed by Harris et al. (2009), Quilliam (2009) compared the advergames of major food companies of CFBAI participants versus those of nonparticipants. The CFBAI companies were more likely to include disclaimers in or around their games (63 percent, versus 33 percent for non-CFBAI companies). However, only 37 percent of the advergames included healthy lifestyle messaging, and there was no difference between CFBAI and non-CFBAI companies. Nearly half of CFBAI companies did not

have “better for you” products or healthy lifestyle messaging. About 30 percent included only “better for you” products; 7.5 percent included healthy lifestyle messaging only; and only 16.4 percent included both “better for you” products and healthy lifestyle messaging. The report concluded that of the food products marketed in advergames, 83.2 percent were unhealthy.

Legal remedies are also sought to protect US children from marketing practices. The Children’s Online Privacy Protection Act (COPPA) of 1998 prohibits unfair or deceptive practices that allow website operators to knowingly collect, use, or disclose personal information about children who visit their sites. Requirements include posting privacy policies, obtaining parental consent, and keeping the information collected secure and confidential (Moore, 2006).

In the United States, if the government has sufficient interest in regulating the products promoted by content, including an advergame, then the government has the constitutional right to do so. To determine whether advergame content qualifies as protected speech under the First Amendment, the courts employ the four-part Central Hudson test developed by the US Supreme Court. In the case of *Central Hudson Gas & Electric Corp. v. Public Service Commission of New York*, a test was developed to assess whether the (1) content involves lawful activity, (2) content is misleading, (3) regulation directly advances governmental interest, and (4) regulation is more extensive than necessary to serve the governmental interest. Although advergames are legal, they may well be misleading to very young children who cannot understand commercial intent. Real harm could also result from playing advergames if the content involves unhealthy food marketing that, in turn, could result in childhood obesity, thereby satisfying the test of governmental interest. The fourth requirement could be met if the US Federal Trade Commission (FTC) regulates only advergames directed toward children, and not all advergames (Grossman, 2005). Rather than a complete ban, the FTC could require parental consent for children under age 13 to play advergames, as an extension of the guidelines of COPPA. Advergames promoting other products, such as toys, could also be regulated if the government explains a substantial interest to do so and the regulations are not too broad. Even so, in interpreting the Central Hudson test in recent years, the Supreme Court has followed a very conservative view that tends to privilege the free speech of the marketers (McGinnis et al., 2006).

Congress granted the FTC authority to regulate advergames and other marketing mechanisms. Regulatory bodies, such as the FTC and the US

Department of Health and Human Services, have begun to request data that assess whether advergames affect children's behavior, which in turn affects their health (Lee et al., 2009). At present, however, there is limited empirical data about how advergames affect health outcomes.

Self-regulation and regulation in the UK

The British Broadcast Committee of Advertising Practice (CAP) is a self-regulatory, mandatory code established by the Advertising Standards Authority, funded by a tax on the advertising industry within the UK. This nonvoluntary code regulates nonbroadcast advertisement content, sales promotions, and direct marketing (Committee of Advertising Practice, 2010). Sanctions for failure to abide by the code result in alerts to the press and potential legal action, including court injunctions that stop advertisements. While this code tentatively covers pop-up and banner advertisements, it does not cover marketing on a company's websites, nor does it regulate advergames.

Since the CAP has no code specifically for advergames, Dahl et al. (2006) analyzed British food advergames that appeal to children against Television Advertising Standards Code. The researchers assessed whether the persuasive intent of advergames was easy to identify and whether the advergames complied with existing advertising codes, such as those used in television commercial messages. While the self-regulation code requires a clear distinction between advertisements and other content, the logo demarking the difference was often small and required the user to scroll down to see it. Two websites analyzed gave only corporate information and product details, including nutritional information and package sizes, but these did not target children and did not contain advergames. Moreover, only half of the children's websites required the user to enter an age or answer easy questions to prove age. Three sites had no registration, one site had an optional registration, and eight sites provided incentives for registration through sweepstakes. Nairn (2008) also reviewed children's websites in the UK. Much of the Internet marketing was poorly labeled and integrated into content, which would make it difficult for children to discriminate the commercial from the noncommercial content (Nairn, 2008).

Areas for future research

Although there are numerous theories about children's persuasive and advertising knowledge, there is scarce empirical data about advergames (Wright, Friestad & Boush, 2005). Those few studies that do exist focus

on short-term effects of advergames on children. We know nothing about long-term exposure (Dahl et al., 2006), an area that is of considerable importance.

Baumgarten (2003) calls for new research tools to be used in analyzing advergame play, including eye-movement tracking, emotional-response recording via facial expression, and functional magnetic resonance imaging of brain activity during advergame play. Such data would advance our understanding about the effects that advergames have on children's product-consumption patterns and, specifically for food advergames, their food preferences.

Another area for research is how children can learn to defend against advergames. One potentially effective protection against advergame effects on children is through media literacy training (see Chapter 9). A training study of 10- and 11-year-old students, for example, taught persuasive intent and how to recognize advertising on websites (Wollslager, 2009). After initial exposure to the advergame, only 23 percent of children could identify that the purpose of the branded games was advertising. After a brief training period, however, 56 percent of children identified the embedded advertisements, and 49 percent recognized that these advergames were advertisements rather than entertainment. Although older students performed better at baseline, after the training there were no age differences.

An additional frontier for advergame research is to see how advergames have migrated to mobile devices. Game play on cell phones is quickly becoming popular. In the United States, Rideout et al. (2010) found that 8- to 18-year-olds spent an average of 17 minutes per day playing games on their cell phones. Unlike computer game play, there was little gender difference in time spent playing cell phone games, with 17 minutes for boys and 16 minutes for girls. However, there was a race/ethnicity difference, with black youth playing games for 29 minutes, Hispanic youth playing for 19 minutes, and white youth playing for only 9 minutes.

Conclusion

Advergames are pervasive in children's daily lives and may have substantive effects on children's consumption patterns, including their food preferences and brand loyalties. Marketing, however, does not simply impact children's purchases or preferences. According to Linn (2004), marketing affects core values about lifestyle choices, including our definitions of happiness and our measure of our own self-worth, as well as materialism, impulsiveness, and feelings of entitlement.

Industries in both the United States and the UK have begun to create self-regulation policies for advergames, but progress is slow. Although governmental and legal regulation may seem desirable, a major difficulty in pursuing legal remedies within specific countries is that international regulation of Internet content is nearly impossible. Who, for example, determines jurisdiction over websites that can be accessed across national boundaries, and how can contradictory country regulations be resolved (Dahl et al., 2006)? One fact is beyond dispute: advergames are now a part of children's online experiences, and children are online playing them.

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13
Conclusions

Caroline Oates, Fran Blumberg, Barrie Gunter & Mark Blades

During the last few years, advertising to children has grown increasingly complex and, to parents and other stakeholders, potentially more bewildering as the range of channels and methods used by marketers has broadened from traditional television advertising to sophisticated and, at times, subtle media such as advergames. What all the chapters in this book have indicated is that the marketing landscape has irrevocably changed and with that change, our understanding of children as audiences for marketing messages warrants reconsideration.

Contemporary concerns about advertising

In our opening chapter, we outlined areas of particular interest and highlighted issues around marketing to children per se. These concerns include children's health and well-being, the use of new communication technologies and changes in regulation. All these issues are contemporary concerns in the context of the proliferation of media-based marketing strategies designed to appeal to child and adolescent consumers.

A major concern is the promotion of inappropriate products to children and young people, such as alcohol and unhealthy food (see Chapters 4 and 5), especially when these are promoted by novel platforms such as websites and social media (see Chapter 12). The role of regulation in keeping up with the rapid changes evident in marketing to children is another issue, and there is an uneasy status quo between advocates for increased regulation, such as the UK pressure group Sustain (2013), CARU in the United States and those in the advertising industry who argue for less regulation (such as the IPA [2013]). The regulatory environment differs across country borders and within countries across different media (see Chapter 7).

With the development of the Internet there are also new issues, such as children's privacy. For example, CARU raised concerns about an advertisement for a game on a website requiring its child visitors to enter their email address and other personal information to play the game. CARU is a branch of the US advertising industry's self-regulatory system that evaluates US advertising to children. Their specific concerns were that the website may have included insufficient safeguards to ensure that children under 13 were not disclosing personal identifying information (ASRC press release, June 28, 2013).

One of the themes of this book is how little researchers know about advertising to children in newer media, as opposed to more traditional forms such as television. Television may remain a dominant media venue sought by children for entertainment and educational purposes (Lemish, 2006); however, international surveys attest to the increasing amount of time spent by children using more recent forms of digital media, notably the Internet (Feierabend & Klingler, 2008; Neilsenwire, 2012; Patriarca, Di Giuseppe, Albano, Marinelli & Angelillo, 2009; Rideout, Foehr & Roberts, 2010). This issue was considered in Chapter 11, which pointed out that what we know from research on television advertising does not necessarily apply to children's recognition and/or understanding of other forms of advertising, such as that on the Internet. The same point is also considered in relation to particular communications, including product placement, in Chapter 10, and advergames, in Chapter 12. The authors of these chapters all emphasise the need for more research around children's understanding of advertising in these various forms, as their own research points to differences in children's awareness of advertising between the different marketing platforms.

The role of regulation is raised in terms of fresh concerns over age-appropriate restrictions on advertising and how regulation can and should encompass digital marketing. In the UK, regulation has moved towards additional coverage of company web pages and social networking sites by the Advertising Standards Authority, which also oversees advertising on traditional channels (ASA, 2011). However, research is needed to determine whether the *level* of regulation should vary according to the advertising medium if children demonstrate different degrees of competency in recognition and understanding of different media.

Education for parents and children

A key influence involved in children's exposure and response to advertising is parents. As identified in Chapters 7 and 8, parents express

concerns over advertising generally and for specific products, especially unhealthy foods. We know from the research reported in both chapters that parents from several countries do not always have a clear grasp of marketing practices and that many continue to equate advertising solely with television. This situation persists despite the proliferation of advertising on different channels to which their children are regularly and frequently exposed. Accordingly, concerns are raised for several reasons, including safety issues (Livingstone, Haddon & Görzig, 2012) and exposure to unsuitable content, or content that children fail to understand. In Chapter 8, it was suggested that the newer media environment demands additional skills from parents to enable them to maintain a level of input over their children's interpretation of advertising and to manage subsequent effects such as product requests. Parental strategies for delivering this input need to be based on the age and gender of the child (Gunter, Oates & Blades, 2005). This situation warrants research into the strategies parents use to communicate information about advertising and how effective those strategies are.

In addition to the need for more parental awareness about advertising techniques and channels, education is a key way to increase children's knowledge and critical appreciation of marketing messages. Research described in Chapter 3 showed that children are often uncritical of advertisements and that even when children are critical, their scepticism may be based on different, and less sophisticated, reasons than adults' scepticism. This points to a need for parents and educators to take into account the reasons children voice criticisms of advertisements and to be aware that a critical response by children may not always reflect a fully adult-like understanding of advertising.

In Chapter 9, the potential role of media literacy programmes was evaluated, and it is positive to see that such programmes are engaging with a diverse range of media contexts that goes beyond traditional print and broadcast formats. Here, the aim is to encourage children to become informed and critical consumers via engagement with media practices, and there is some evidence that these programmes can be successful. There is also a need to ensure links between what children learn during media literacy classes and the information provided to parents through related organizations: a good example is the UK's Media Smart (2012), which has resources for children aged 6–11 years to be used in school and an accompanying awareness package of materials for parents. However, questions remain about the involvement of the advertising business and commercial organizations (such as McDonald's) in media literacy education.

International considerations

Throughout the chapters in this volume, we have drawn upon research from several countries and have reported empirical studies from a number of countries apart from the United States and the United Kingdom (see, for example, Chapters 2, 6, 7, 8 and 11), but we note that most of the research about children (and their parents) and advertising is from North America and Western Europe. On the one hand, this location bias may not have serious implications for our understanding of how and when children comprehend advertising. If children's understanding results from their cognitive development and children in different cultures develop in similar ways, then, at any particular age, children's ability to recognise and understand advertising should be similar regardless of where they live, and this is indicated by cross-cultural studies (see Chapter 2). Given the widespread adoption of newer media across the globe and the increasingly international flavour of advertising by major brands, it might also be the case that children in most countries are subjected to very similar forms of advertising. On the other hand, advertising is a social phenomenon, and how children interpret it might be mediated by their cultural and social traditions, such as degree of materialism (Chan, 2003) or frequency of experience with persuasion episodes (Friestad & Wright, 1994). We suggest that further global research would be useful to provide comparative data about the similarities and differences in advertising aimed at children, as well as comparative data about how advertising is received and interpreted by child audiences in different parts of the world.

Summary

We emphasise that there is much yet to be done by researchers in this field, given the rapidly evolving marketplace. To enable future research in this significant topic, we suggest that researchers need to have a solid foundation in both the theoretical and methodological underpinnings associated with advertising to children. Our hope is that this book has contributed by providing some of those foundations and by suggesting research directions for new and innovative research.

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