Advertising and Food Choice in Children

A Review of the Literature

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Executive Summary

This review examined the role of advertising in children’s food choice. Much of the popular writing in this area makes certain assumptions which may or may not be justified and one of the purposes of this review was to establish, by a thorough and extensive examination of the available academic literature, just what is known about children’s food choice and the role of advertising in it. The author had previously published a review for the Ministry of Agriculture, Fisheries, and Food (MAFF) in 1996 and this Report can be seen as an extension of the MAFF Report.

Nine main areas were identified in the literature as being of both academic and public concern. The themes that emerge are summarised below and are looked at in turn:

- Families and food choice
- Attitudes toward advertising to children
- Attitudes toward food
- Packaging and brands
- Food choice and behaviour
- The Great Food Labelling Debate
- The child’s understanding of advertising revisited
- What’s on?
- Watching food advertising and food choice

Families and food choice
The way families decide about food is one where the children have a natural role to play in food choice. Although parents often decide and socialise the children, the children themselves can actively change their parents’ beliefs and attitudes. Decisions are made collectively and dilemmas are resolved – this is a normal and natural part of family life. Research that investigates these dynamics within families has shown that practical issues surrounding food such as ‘what shall we have?’ – ‘will she like this?’ were most frequent and advertising was hardly ever mentioned.

Attitudes toward advertising to children
Research done on a pan-European scale has shown that advertising is mentioned and rated by parents as a minor source of influence on children. The ones that are seen as important are flesh-and-blood like parents, friends, and family. But if the more conventional studies that involve giving people statements and asking them if they agree with them or not are examined then we found that when specifically challenged some parents have concerns about certain features of advertising food to children but when the topic is placed in a wider context, parents do not consider it to be a major factor in their child’s upbringing.

Attitudes toward food
Children’s attitudes toward food generally show nutritional understanding. Pan-European studies have shown that children have a good understanding
of what food is good for them and what food can be bad if consumed to excess. Dental health was an area where children were particularly knowledgeable as well as knowing that energy dense foods could make you fat. However there are differences based on gender and socio-economic status (SES) with lower SES kids knowing less and girls being more knowledgeable than boys.

**Packaging and brands**

Although there were many articles and the occasional book dealing with packaging and branding and how best to do this with children there was not much recent academic research on the subject. Evidence showed that older children (10-11-year-olds) understood promotional strategies such as free gifts in the package and were generally very knowledgeable and that children ‘grew out’ of character endorsement, especially with cartoon characters some time in middle childhood.

**Children’s food choice and behaviour**

Peers can influence young children who can be encouraged to change their choice at 3 to 4 years by eating with other groups with different preferences from their own. Families have a strong influence on dietary preferences. Ways parents have of controlling and regulating their child’s diet are important. For example the more girls were restricted from eating snacks, the greater were the amount of snacks they ate when given the chance. No such relationship was found for boys. The conclusions established in the MAFF Report concerning the development of dietary preferences in children were upheld. There is evidence from studies of newborn infants that innate preferences for sweet tastes and dislike for sour and bitter tastes exist. Simple mechanisms of learning such as modelling the behaviour of others learning associations between different foods and the sensory, post-ingestive, and post-digestive consequences of eating them will act as rewards and punishments. And in this way children progress from a reliance on one source of food as infants to enjoying the wide range of diets across all cultures.

**The Great Food Labelling Debate**

Since the MAFF Report appeared in 1996, there has been discussion of food labelling and one report by the CWS is examined in detail. In general the conclusion is that the psychology that underpins much of the argument put forward in this report is seriously flawed.

**The child’s understanding of advertising revisited**

The extent to which children at different ages understand the purpose behind advertising has always been of central concern in the regulatory debate. Why? Because it’s a socio-legal matter. Although there is no fixed date, it is always attractive to fix an age so that younger children are different from older ones and lack of understanding implies that it’s unfair or deceptive to advertise to them. Recent research on the child’s understanding of advertising has shown that children are judged to be more savvy with this medium than was previously recognised. By the age of 8 they understand the commercial and persuasive intent behind advertising but age is not the only
important variable as there is still a wide variation across different socio-economic groups. There is no evidence that children under 5 years of age see advertising as anything but entertainment. Generally, an adequate understanding of advertising among children emerges by the age of 8 but some children do not apply this understanding until they are 12 years of age.

What’s on?
Recent content analyses of advertising to children show that the product categories that children see have largely remained unchanged over the last 25 years in the United States. So breakfast cereals have always been the most frequently advertised product to children but the 2nd most advertised foods are now (1999) convenience foods such as frozen dinners and ‘drive-ins’ whereas snacks like gum, candy and popcorn came 2nd in 1994.

Watching food advertising and food choice
Several studies claimed a direct relationship between food advertising to children and subsequent food choice. Although significant correlations have been claimed, these studies are methodologically unsound as they do not use longitudinal or experimental designs and both of these would be required before any claims of causality can be made. In two prospective studies one reported small but significant results and the other didn’t.
Families and food choice

The first way into the issue of the role of advertising in children’s food choice is to look at how families go about their daily business of making food choices – of deciding when and what to eat. Who decides? Do children have a role to play? These and other questions will now be looked at.

The research cited and described below shows that household decision making cannot just be modelled by looking at the costs and benefits, from an economic perspective, of the family or the members of the family. To take one example, Palojoki and Tuomi-Gröhn (2001) looked at “the everyday thinking of ordinary homemakers when making food choices” in Finland by looking at decisions concerning choice between different kinds of milk. Milk is an important part of Finnish diet and choice should be influenced a lot by health-based information about different fat contents of different kinds of milk in the market. They make the important point that household decision making is not based on the vision of economists where individuals make considered choices by evaluating the costs and benefits of different alternatives but rather there is collective decision making where the process is driven by the contradictory demands and the resolution of consequent dilemmas. They also observed that children have an active role to play and serve as a source for changing habits. Socialisation occurs in both direction between parents and children. On the one hand parents teach children about new food habits (such as using skimmed milk for children older than three years) but on the other hand “the children may socialize their parents into healthier food habits learned at school” (op. cit., p21).

Stratton (1997) looked at the influences on food choice within the family and this article describes in more detail an already established research agenda that he outlined in an earlier article (Stratton, 1994). Qualitative techniques were used where members of families were interviewed individually in private and then the whole family together. This method does justice to a well-known principle in systemic studies of groups (especially families) in clinical research; that the views, opinions, or attitudes of one member about ‘what goes on’ may be different from another member’s views and that a collective vision may be different again. Thus there is no one reality of what happened and one has to integrate and recognise a plurality of different vantage points and voices. The data was recorded and analysed using an analysis based on attribution theory. Attributions are an essential part of the way we make sense of the world and we can for example attribute our success to our skills and our failures to bad luck or unfortunate circumstances. We provide cause and explanations to matters that are important to us. That is part of our own process of understanding our world.

Stratton identified over 7000 attributions and those that referred to food in any way were then categorised by content as shown in Table 1.

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1 The caveat that “when there were children less than 6 years old the whole family was only interviewed together” (p.8) was added.
2 This ‘attributional bias’ as it is known is functional inasmuch as it protects one’s self-esteem.
Table 1. Proportions of attributions on broad definitions of family dietary priorities (n = 6826) (after Stratton, 1997; Figure 1.1).

Stratton concluded that families talk about food and it’s an important part of their daily life but that the two dominant priorities were “…practical issues to do with the provision of food, and issues of food choice”. Nutrition and health issues were low in priority.

A more detailed analysis of the attributions made about the different sorts of influence that were used by the family to account for their food choices sheds some light on the role of different agents here (Table 2 refers).

Table 2. Proportionate emphases by families on influences on their food choices (n = 3004) (after Stratton, 1997; Figure 1.2).

It can be seen from Table 2 that parents are mentioned in about a third (about 1000) of the responses. Other ‘flesh and blood’ influences are children, friends, and the family in general (44%). Interestingly the economic factors (price, marketing issues like advertising, pack information, and supermarket ecology) are mentioned rarely and the sum of all these replies is only 15%. A picture is emerging of sources of influence in lay perceptions where family and friends dominate. Advertising for example has a smaller, much weaker
effect and we shall see that this perception is confirmed by other studies and also reflects what experts think are the major agents of influence on children. Stratton recognises this when he sets up a list of ‘myths’ about food advertising and proceeds to demolish them. One myth is that families see advertising as distorting the pattern of their children’s eating. However “…our parents did not reveal a generally negative attitude to advertising. They were well aware that children’s food advertising concentrates on snacks, drinks and cereals but did not see these categories as distortions of their children’s diets” (op. cit.; p14).

Stratton’s data provides other interesting perspectives on how families talk about food in the home. There is a category, a natural category of their discourse, called ‘snacks’ that may be used slightly differently from the conventional usage in marketing and nutritional circles. Snacks, in the everyday sense, emerge from the data as a functional category separate and distinct from regular meals. Snacks “…are used to keep children going between meals…as something nice to have in regular situations such as coming home from school, and also as treats” (p12). So snacks would cover sweets and crisps but for some families would include a ham sandwich for example. It doesn’t seem to be the case however that advertising and other influences are attributed any more or less as a cause with this kind of food; “we do not see the pattern that would be predicted by groups who are greatly concerned about the effects of advertising in directing children towards sweet or fatty snacks” (p11).

Stratton also discusses negotiation within the household on food and food-related issues. Children have a role to play but it’s far from the popular version where parents feel pestered to give their children inappropriate foods. Parents did not see it as contentious and the issue was more about maintaining enough variety in the face of their children’s likes and dislikes to stop them becoming bored. Many parents also reported that their own diets were strongly influenced by what they provided for their children and they were likely to prepare one basic meal that would be eaten with variations by all of the family.

Stratton’s research demonstrates that parents don’t talk about the role of advertising very much when discussing food choice within the family. If we assume that how often something is mentioned is a measure of how important that cause is to the average or typical individual, then we can conclude that advertising is a weak source of influence as compared with other, more frequently mentioned, sources of influence such as real and significant others like mum and the kids. At least Stratton’s research supports this. Is there any other evidence to support this conclusion? Burden (2000) reported on a pan-

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3 Stratton makes the point that new foods might be successful or not depending on their acceptability to adults as well as to children – pizzas being the example cited.

4 It’s important to establish that conclusions are being drawn about group data – collectively in this case over 7000 attributions – and the argument then extends to theories of how individuals are influenced. This kind of argument is not uncommon and quite acceptable in psychology when summary statistics based on group data are used to inform models of individual decision making.
European study on the extent to which parents perceive television advertising’s role as influential. A large sample was used covering 20 different European countries with about 300 parents in each. The sample is demographically representative although the size per nation is too small to allow stratification by, for example, age, sex, or socio-economic status. One of the questions used free recall and respondents provided the ‘five most important influences in their [child’s] upbringing’. Television advertising is not cited in the top five sources of influence by 86% of all respondents. The dominant sources are parents, school, friends, other family, and children’s TV programmes in that order. There were some national differences with Denmark and Belgium assigning more importance to the role of television advertising. There is a danger in interpreting cross-cultural or cross-national data to indulge in post hoc analyses and create explanations: these local variations do not affect the general conclusion. The other methodology used is where respondents are presented with named sources of influence and asked to rate them in terms of importance. Results here confirm the relatively minor role television advertising plays with it being ranked 7th. This ranking means it falls below family, school, and friends. This is a European-wide finding and there is little variation across countries with the exceptions of Denmark and Belgium. Having two methodologies producing similar results strengthens the case that television advertising is perceived as having a relatively minor role to play as a source of influence in child development. The expressions ‘child’s life’, ‘upbringing’, ‘development’ are used in the interview schedule as reflecting the concept of agency in the development of the child. It can be concluded that these findings are sound and confirm what is already known in developmental psychology about the major agencies in socialisation.

So the research cited here seem to suggest that parents do not consider food advertising to children as an important issue. If we ask parents to talk about food choice within the household and analyse their attributions emerging as part of their naturally occurring discourse (Stratton’s research), then advertising is only mentioned occasionally. If we ask parents across Europe to name the major sources of influence in their child’s life then advertising is mentioned but way down in the list under both free and prompted recall (Burden’s survey). It is tempting to then conclude that the present furore about food advertising to children is of no real concern to parents and look for other reasons for this storm in a teacup such as episodes of moral panic, or politicians using the issue as a political football (Johnson and Young, 2003). However there is evidence that would suggest food advertising to children does apparently worry people so that must be examined as well. We shall now turn to the literature on attitudes towards advertising to children.

Attitudes toward advertising to children

Young, De Bruin, and Eagle (2003) reported on a study conducted in Sweden, U.K., and New Zealand with parents who were given a questionnaire which

5 The first six were (in rank order of perceived importance): parental influences; school, teachers; other family members e.g. grandparents; other care providers, neighbours; child's friends, peers; children’s TV programmes.
asked them *inter alia* about their attitudes toward food advertising to children. Results showed that a significant\(^6\) majority of parents in New Zealand agreed that ‘advertised foods on television is an important cause of unhealthy eating habits’, that ‘there is too much sugar and fat in food products advertised in television programmes directed at children’, and that ‘there are too many additives in food products advertised in television programmes directed at children’. Although there were some differences between Swedish and U.K. samples, there was a similar tendency to take a negative view of certain aspects of food advertising. But a factor analysis of the responses over 34 attitude statements show that two separate factors, attitudes toward advertising and attitudes against advertising, emerged. This means that a respondent could have two separate attitude constructs, one favourable and the other unfavourable, and would be able to access both when discussing advertising. There was no unitary single mental dimension on which one viewed oneself as being ‘for’ or ‘against’ advertising.

The apparent contradiction in evidence on attitudes toward food advertising to children can be resolved by looking at the methodologies involved. In both Stratton’s and Burden’s work, the research question is concerned with the extent to which advertising is mentioned or invoked in a general context of some other activity. In the former case parents are discussing food choice and in the latter case they are being asked questions about their own opinions of agents of socialisation. Results concur – advertising does not emerge as a salient issue in either context and can be considered as a weak force (as described by Jones, 1990). In studies using attitude questionnaires on the other hand, the topic is already defined either by the manifest content of the items or else by the face sheet telling the participant what he or she has to do. Once the respondent is set to expect the topic to be ‘advertising to children’ then responses are located within a particular specific context. This framing or priming will produce a set of attitudes that are different from the previous set.

**Attitudes toward food**

Macaux (2001) looked at attitudes toward food in France, comparing children with their mothers. Practically all\(^7\) children ate breakfast, lunch, and evening meal although viewing TV during mealtimes is not an insignificant phenomenon\(^8\). Children saw food primarily as a necessity of life, whereas mothers viewed food primarily as a pleasure for their child. French fries were the favourite food for children, closely followed by pasta, and fruit and candy were also rated highly (82% and 81% respectively).

Proponnett (1997) interviewed 1600 children aged 8 – 15 in a pan-European study of France, Germany and the UK that looked at children’s views on food and nutrition for the European Food Information Council (EUFIC). They were

\(^6\) Using the 0.025 (two-tailed) level of significance that the null hypothesis (parents would not have positive or negative views) could be rejected.

\(^7\) None of the percentages quoted fell below 96%

\(^8\) Percentages who watched TV during the meal were 25% at breakfast, 46% during “afternoon snacks”, and 41% during evening meals
generally aware of what defines healthy eating and perceived this as an important influence in food choice. So for example 82% agreed that ‘foods like sweets and ice cream are OK to eat, but not all the time’ and 79% agreed that ‘it is best to eat small amounts of different foods, rather than a lot of the same food’.

Hart et al. (2002) aimed to assess the nutritional knowledge and understanding of primary school children and the study used a considerable number of focus groups (23 in all) covering 114 children aged from 7-11 years. Issues discussed included parental food rules, children’s perceptions of ‘good’ and ‘bad’ foods, diet-disease links and food groupings. So for example children were asked to name ‘good’ and ‘bad’ foods. There were gender differences with girls generally better than boys and socio-economic (SES) differences in the expected direction with less accurate food-health associations from lower SES groups. Dental health appeared to be very well understood and the authors claimed good knowledge about which foods made you fat i.e. energy dense ones. Children most commonly reported restrictive food rules suggesting a negative approach by parents in asserting food control although these rules decreased with age. There were SES differences (and this has been found in other studies) where mothers of high SES enforced more restrictions while the lower SES mothers expressed greater difficulty in proscribing unhealthy items and attempted to avoid conflict via their shopping choices. The authors claim that messages propagated by a large number of adverts aimed at children; primarily those for breakfast cereals and chocolate bars, might explain “…the prevalence of simple but misleading ideas, such as ‘sugar for energy’ and ‘chocolate is good’ expressed by those study participants” (op. cit., p137). They also point out, on a more positive note, that a subgroup of more discerning schoolchildren appeared to question these adverts and promotions and that this requires further investigation.

Edwards and Hartwell (2002) were interested in finding out what children understood by ‘healthy eating’. Interviews and questionnaire methodologies with 221 children yielded interesting results where most children were familiar with the term ‘healthy eating’ and were aware of and understood the idea of a balanced diet. However although fruit is well liked and more easily recognised by the children, some vegetables are still confused with others.

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9 A close examination of the questions used to elicit these judgements suggest a few methodological flaws. Often the statements are worded so that the ‘right’ answer is obvious and the response categories are only ‘yes’ and ‘no’ and the correct answer can be obtained with ‘yes’ which is confounded with the well-known acquiescence tendency in children. A better approach would be to include a multiple choice format with a correct answer embedded within various carefully designed distracter items. These are used later in the paper so when children are asked ‘what is salmonella?’ there are various response alternatives including ‘a type of pink salmon’.

10 In fairness to the paper, it should be added that they also claim that children “largely obtain their nutritional information from informal and potentially inaccurate sources, such as television, advertisements, books and schools” (op. cit., p137) and that children ‘read’ this information at face value. No evidence is given to support this claim however that children assimilate the information from all these different genres in a similar way.
and were less liked\textsuperscript{11}. The results of Young and Claessen (1998) are relevant here – children were capable of sorting foods on ‘healthy’ and ‘unhealthy’ dimensions and provide reasoned justifications for their choice. In addition a dimension identifiable as ‘healthy-unhealthy’ emerged when children attempted a free classification of different foods.

### Packaging and brands

As well as the more conventional forms of advertising, promotion, and marketing, there are point-of-sale displays, in-store promotions, packaging and labelling that can affect and influence food choice and preference by children and their families. Clark (1997) has discussed how packaging works with children from the point of view of marketing communications. Her model recognises the need for product presentation with a design that integrates all aspects and geared to communicate the relevant brand values. She recognises the need for packaging to communicate at both the rational and emotional levels and to serve several communicative functions within the constraints of the shopping environment such as the supermarket. The designs are based on focus group research with 6-9-year-olds looking at food products such as confectionery, savoury snacks, biscuits, soft drinks, yoghurts and cereals. Colours such as purple, red and yellow; blue and green were liked and their use in bold colour contrasts were able to communicate recognition of familiar brands and, importantly, flavour which was communicated by colour coding and “strongly influenced their choice and increased pester power” (op. cit., p123). Typography is important and ‘refined and straight typographies’ were seen as unfriendly and cold; bubble writing being preferred. Clark gives several basic tips for more effective communication. Illustration is better than photography. She emphasises the importance of using an integrated marketing strategy so that packaging and advertising are seen as working together in a synergistic way. Interestingly, character endorsement is less popular with older children in the 6-9-year-old range and by the time children are 8 to 9 years they are aspirational and “looking to brands to provide a more sophisticated proposition”. Clark doesn’t make it clear whether this is a general rejection of character identification\textsuperscript{12} or whether the characters themselves such as Thomas the Tank Engine and Postman Pat are age specific only to younger age bands.

Clark does mention a technique of brand stretching where a brand is borrowed from one category and stretched into another and that character identification is an effective way to maintain brand identity through recognition\textsuperscript{13}. Although this has been discussed in the marketing literature (Howard, 1997), it wasn’t until recently a paper appeared (Zhang and Sood, 2004).

\textsuperscript{11} One possible reason for this could be that fresh vegetables are rarely encountered in their natural state by children (for sale in the greengrocer’s shop or supermarket shelf) or else children do not pay attention to them – they are often sold frozen in packs or as part of pre-prepared meals.

\textsuperscript{12} There is a comment by Lindstrom (2003) that studies by BRANDchild have shown that between 1999 and 2003 have been over-exposed to product endorsement by sporting celebrities and that “…there is now less admiration for testimonials by stars” (op. cit., p254).

\textsuperscript{13} The example used was Bassett’s Jelly Babies appearing in the chilled cabinet.
discussing the issue with children. One of the issues in what Howard (op. cit) has called ‘brand elasticity’ or the extent to which the brand will travel from the original product to the new one is how far and on what basis this extension can be made. Adults will accept an extension based on some sort of category similarity between the original and the new product. So Coca-Cola would extend to iced tea for example and consumers would feel that is a more congruent match than to toffee. The semantic relationship between the original product category and the new product category drives evaluation and “when consumers perceive the relationship to be high in similarity, they evaluate the brand extension more favorably than when they perceive the relationship to be low in similarity” (op. cit.). Zhang and Sood looked at brand extension with 11-12-year-olds and compared their abilities with adults. They found that children of this age can judge similarity between the parent brand and the extension category when given a task where they explicitly had to do so. So they were capable. But they do not use similarity as a basis for brand extension evaluations unless appropriately prompted first. This result is consistent with previous advertising research findings by Brucks et al. (1988) indicating that children do not use information about the persuasive intent of advertising when evaluating products unless they are first cued to think about how marketers use advertising to sell products. So we can see that children of this age perform differently and that there’s a case that their performance is not up to the same standard as that of grown-ups. Children of this age also prefer brand extensions that use surface similarities between parent name and extension name compared with adults. An example would be ‘Coca-Cola Gola iced tea’. It is important to know the extent to which brands will ‘travel’ when considering brand extension marketing strategies and this research could be developed with older children in the future. For example Zhang and Sood suggest that there are limits of acceptability in brand extension and this could be determined by the superordinate category of which the parent brand is a member. So for example Coca-Cola - a strong brand by any definition – could extend to other edibles and children will then find Coca-Cola iced tea or Coca-Cola candies quite acceptable as extension brands. But it may not extend beyond that so that Coca-Cola batteries are not rated favourably because they lie outside the superordinate category boundaries.

Gelperowic and Beharrell (1994) were interested in the extent to which packaging has an influence on the child and how this influence, if it was there, affected the decision making process during shopping. They used both focus groups and questionnaire-based interviews with mothers who had children younger than 12 years of age. Mothers do perceive their children as being

Bears no relationship to elasticity as economists use the term as in ‘price elasticity’
I hesitate to invoke notions of cognitive ‘immaturity’ because there are conceptual difficulties suggesting that one group of young people are less able than another (although there is a strong biological ‘growth’ component in development and many other psychologists would therefore welcome concepts like immaturity into their lexicon). My preferred model is one where the child at different ages is faced with a different set of problems and that then defines his or her achievement (see Webley et al., 2001)
The definition of superordinate will depend on the subjective organisation of goods and services by different groups of consumers (including children). Does it extend to ‘drinks’ only or to ‘edibles’? That is an empirical question (see Young, 2000)
attracted by packaging and recognise the power of this although “analysis of the focus groups showed that mothers did not like ‘gimmicky products’ targeted at their children and that they said that they nearly always resisted the pressure put on them by their children to buy such products” (op. cit.; p6). The concept of ‘healthy food product’ as it emerged in the focus groups was one that had natural ingredients, without any additives such as colourings or flavourings. Interestingly there is a similar concept of what ‘healthy foods’ are in Stratton’s reports on his work. So for example families think about nutrition “…predominantly in terms of specialized ‘health foods’ and supplements rather than in terms of the everyday meals, snacks, or fruit and vegetables that they are eating” (Stratton, op. cit.; p12). Snacks on the other hand “…tend to be seen as outside the nutritional process. As food they are used to keep children going between meals, then they are used as something nice to have in regular situations such as coming home from school, and also as treats” (Stratton, op. cit.; p12). It would appear that ‘healthy food’ is not only a meaningless term from a nutritionist’s point of view as ‘healthy diet’ is more appropriate, but that it is a slippery concept when used in lay conversations. The evidence cited here underlines the necessity for education and information for families on basic dietary and nutritional principles.

Hill and Tilley (2002) in a case study on the children’s breakfast cereal market, comment that any ban on advertising to children\footnote{They cite a proposed advertising ban by the European Union which at the time of writing is a live issue – but their comments in my opinion would apply to any such proposed ban in any country or countries} would affect the promotional activity profile of companies with a huge impact on press advertising, Internet promotion, packaging and point of sale promotion. They used 4 focus groups with 10-11-year-olds and “…in-depth one-to-one interviews with two research managers” (op. cit.; p771) so results from this small sample will have to be interpreted as speculative given the sample limitations. The ‘pester power’ issue was mentioned and this is evident with 10-11-year-olds. Both Hill and Tilley, and the earlier paper by Gelperowic and Beharrell (1994), concur however on the observation that pester power certainly exists but that often Mum asserts her authority and gets her own way. Children are primarily interested in fruity or chocolate flavoured tastes. Hill and Tilley suggest that these older children still want cartoon based character merchandising (in contradiction to for example, Clark, 1997) but a closer examination of Hill and Tilley’s argument does not appear to provide this evidence. They asked children to create a cereal box and found that the children suggested that cartoon characters, animals and celebrities would be appropriate on the front. They then conclude that “this contradicts the popular belief by the major manufacturers that children grow out of ‘cartoony’ images around the age of seven!” Being able to judge what is an appropriate children’s product is not the same as one’s personal preference and the fact that children from about 8 years of age are aspirational in their purchase preferences choices still remains. Hill and Tilley’s respondents display a degree of consumer sophistication. So they were all aware why people get free things in cereals:
“They’re trying to get you to buy more cereals and they’re not actually giving you them free because sometimes you have to pay for them and they say they’re free when you have to send off for things” (op.cit.; p773).

However this apparent knowledge of promotional reasoning did not appear to prevent children from requesting cereal with a promotional offer – but only if they were collecting the promotional item. Otherwise they would choose flavour first. This shows that children are influenced by marketing techniques but their decision is based on a reasoned consideration of the perceived benefits of the product – including the promotional offer. The added value of the offer provided by its ‘collectability’ is enough to ensure a considered purchase request. Other savvy replies by these children were an awareness that all is not what it seems and that they would not buy a cereal just because it had a nice packet. When they were asked what they would do to sell more cereals one child replied, referring to current discrepancies of RRP price reductions “I would do what Asda do and pretend the cereals were a different price” (op. cit.; p774).

**Children’s food choice and behaviour**

Turning now to research on children’s food choice and behaviour, Escobar (1999) reviewed research on children’s dietary practices and discussed factors that affect their food choices and behaviours. Peer influence was strong for 3-4-year-olds and Birch (1980) found that children of this age could be persuaded to change their selection and consumption of different vegetables as a result of eating meals with their peer group whose preferences differed initially from their own. Do food preferences run in families? Several studies produce different results but a meta-analysis by Borah-Giddens and Falciglia (1993) shows a small but significant correlation between the food preferences of parents and those of their children 2 to 24 years of age. Most of the evidence surveyed in this 1999 review reinforces the conclusions reached from the MAFF review in 1996 (Young et al., 1996)

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18 There is a tendency, in my opinion for adults not to interpret the added value of some product attributes from the viewpoint of the child. For children of that age ‘collectability’ is an expressive value which can enhance self-esteem and status in the eyes of other children. In addition it can have instrumental benefits such as ‘swop-ability’. Who is to say this is any less rational than an adult paying several hundred pounds for a rare bottle of wine or whisky where the expressive value is certainly much greater than the instrumental benefit of ‘the taste experience’?

19 This should be tempered by the methodology used. Results based on focus group data can give spuriously high norms for (at least) two reasons. Articulate and ‘savvy’ kids tend to dominate discussions and it’s difficult in unstructured free-flowing talk to avoid leading questions. These tendencies can be reduced by training and good practice by group facilitators but they are always there as demand characteristics of the methodology.

20 General theories of child development emphasise the change from information processing based on the perceptual qualities of objects such as colour and size to the processing of deeper, inferred information. This change occurs about 6-7 years age.

21 A meta-analysis examines results from various studies and analyses the effect size in each. This is a standardized measure that provides an estimate of the effect of treatment when compared with a control condition. In this way results can be summarized in a single statistic based on the pooled sample size taken across all the studies. There is some bias in that studies which find small insignificant effects tend not to be published as compared with studies that are statistically significant and hence are not represented in the meta-analysis.
about the dietary habits of young children. There is evidence from studies of newborn infants that innate preferences for sweet tastes and dislike for sour and bitter tastes exist. Families influence dietary habits in pre-school children. Peers also have a strong influence at that age and can mould preferences.

Leann Birch has continued her research into the dietary habits and preferences of young children. Fisher and Birch (1999) looked at the extent to which mothers preventing their children eating snacks could predict the child’s consumption of snacks when these were freely available. Parents might think that limiting access to foods high in sugar and fat would effectively reduce their intake. Parents have various strategies for achieving this at their disposal such as keeping snacks out of reach in the home, only allowing them if other dietary rules are obeyed (“you can have a dessert only if you finish your greens”), and only allowing them on special occasions. Some survey research has been done that has explored the extent to which these strategies have been used (Stanek et al., 1990). However (and Fischer and Birch make this point), parents are equipped with a lay perception of nutrition and diet which emphasises that some foods are ‘bad’ or are ‘forbidden fruits’ whereas others are ‘good for you’ (an issue that is developed further by Rozin et al., 1996). It seems that the adage ‘there’s no such thing as bad foods, only bad diets’ is one that needs to be a central pillar of any programme of nutrition or consumer education. Birch sampled 71 3-5-year-olds and their parents using a mixture of interview methodologies and self-report questionnaires together with Body Mass Index (BMI) and adiposity measures. The dependent variable was how much of a range of snack foods they consumed when the foods were freely available during a play session. Results showed important sex differences. For girls, the amount eaten was linked to mothers’ reports of restricting access to these foods, with greater restriction associated with a greater intake. In other words the more girls were restricted from eating snacks, the greater were the amount of snacks they ate when given the chance. No such relationship was found for boys. And there was no evidence that gender differences existed in mothers’ reports of restricting access or in children’s reports of experiencing such restriction – there was no difference between boys and girls in that respect. Clearly girls respond differently to parental control of eating than boys and more research needs to be done here although the authors suggest that girls may be provided with “less autonomy-granting opportunities than boys” (op. cit.; p415). Birch and Fisher (2000) explored this gender-based difference further and summarise the present knowledge in this area.

“The results of several studies indicate that restricting children’s access to foods can lead to enhanced preferences, increased attention to restricted foods, increased intake of those foods, even when not hungry, and negative self-evaluations. Eating more food in these settings is linked to girls’ weight status (Cutting et al., 1999) but no relationship was obtained for boys. One unanswered question is whether these findings reflect different treatment of boys and girls in the feeding context. There is evidence that parents use

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22 Birch’s studies often ask questions that have a direct relevance to everyday issues of parenting and food, as well as being methodologically sound and conceptually well founded.
'domain-specific parenting', imposing more stringent controls in areas of children’s development that are particularly important to them, or in which they think the child may be at risk for problems. For example, no parents want their children to be obese, but current social norms dictate that being ‘big’ may be more acceptable for boys, while being thin is a more integral part of physical attractiveness for girls. These social norms may lead to greater use of restriction with girls” (op. cit.; p80).

In a brief review paper, Birch (1998) states that “…there are no data to support or refute the idea that preferences and dietary patterns formed in childhood persist into adulthood” (op. cit., p407S). However, Gao and Chumlea have produced evidence that, at the 95th percentile of BMI\textsuperscript{23}, there is a relationship between obesity in childhood and obesity at 35 years of age. Although the probability of being obese at 35, given obesity at 5-7 years, is only about 0.3; this has risen to 0.5 by 16 years of age.\textsuperscript{24} There is good evidence that children’s dietary patterns are well-established from an early age and that they are shaped by learned preferences based on both physiological and social reinforcement and maintained or changed by cultural rules and norms of diet.

Do messages about the fat content of foods affect children’s food choices, acceptance, and consumption? This question is important as concern has been expressed about dieting concerns in girls as young as 9 years (Hill et al., 1991) with the risk of a consequent development in eating disorders (Killen et al., 1994). Although there has been research done on the effects of information about fat content on food acceptance and intake in adults, there has been little done on children.\textsuperscript{25} Engell et al. (1998) used 10-year-old children as subjects and systematically varied the fat content (standard and reduced-content) of oatmeal cookies and whether this information was provided or not to the child. Children were asked to rate the acceptability of cookies sampled and these were not affected by either the actual fat content or whether this information was provided or not. Fat content or fat-content labelling did not affect how much the children liked the cookies when they sampled them, as measured by 9-point hedonic scales (‘like-dislike’). But the presence of information produced a significant switch in preference when children had to choose between the two i.e. in a “forced-choice (ranking) situation” (op. cit., p275). When no information was available, 9 subjects preferred the reduced-fat cookie and 22 preferred the standard cookie when asked ‘which cookie do you like better?’ When information about fat choice was given to the subjects, 19 liked the reduced-fat cookie more than the standard cookie, and 12 preferred the standard cookies. In addition the children were asked to choose which cookie they would eat following two hypothetical lunches that differed significantly in fat content. When no information was available 22 children chose the standard recipe cookie and 11 chose the reduced-fat cookie following the hypothetical consumption of a

\textsuperscript{23} BMI or Body Mass Index is an index of obesity and is a function of weight and height. Although normal range is (presumably) less predictable during development, evidence here relates to the more extreme obese end.

\textsuperscript{24} Ideal curve computed from data points for girls and boys combined.

\textsuperscript{25} But some on adolescents. See for example, an early study by Eiser et al., 1984.
low fat lunch consisting of turkey sandwich and carrot and celery sticks. When information was provided about the fat content of the cookie then the pattern was reversed and 21 children said they would choose the reduced-fat cookie for dessert with 12 predicting they would choose the standard cookie which was labelled as “high-fat”. This demonstrates the power of labelling on food choice with 10-year-old children and shows that children’s preference for high-fat food (Birch, 1992) can be overridden by labelling. The children were certainly aware that dietary fat and health were related as they rated low-fat foods significantly higher in terms of healthfulness than high-fat foods.  

Baltas (2001) applied consumer decision modelling to data on children’s breakfast cereals. They consist of sweetened fun products, often formed in attractive shapes such as stars or animals and characterised by colourful packaging featuring animals or cartoon characters. As well as being targeted at children who consume, they are aimed at parents who buy – and the availability of nutritional information is partly to reassure parents that their brands are healthy as well as fun. This formal analysis indicated that nutrition attributes do matter in product choice decisions and that a model with an explicit trade-off between the nutrition and taste aspects of specific taste attributes can account for much of the variance. However there is much heterogeneity suggesting that different consumers place different emphases on for example ‘taste’ benefits versus the nutritional service provided.

To what extent do children take charge or have responsibility over what they eat? Robinson (2000) interviewed 98 9-year-olds and found that just over half the children said that an adult chose the food in the supermarket but a third said they were allowed to choose food from a predefined choice provided by the adult. In general though a large majority (89%) of the children perceived that their food choice during shopping was under a fairly high degree of adult control. This result supports the results from an earlier study by Charles and Kerr (1988) who found that adults frequently exert control over their children’s eating. But children did have more choice at breakfast time than in the supermarket and three-quarters said that they were allowed to choose from a choice of foods given to them by an adult. Not surprisingly children perceived little control over school lunches but for packed lunches they did have some influence over the person who is making them. Robinson also found that 9 out of every 10 children believed that they had some control over choosing their breakfast and two-thirds over choosing their snacks. Interestingly these perceptions are congruent with marketing strategies where breakfast cereals and snacks are marketed using TV commercials shown when children are likely to constitute a large percentage of the viewing audience. “These factors together may help to define these foods as ‘children’s’ foods which are directly

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26 This study was done in the USA. Similar findings concerning children’s knowledge about healthy and unhealthy foods have been found in the UK (Young, 1998)

27 The data was taken from the TN-AGB Superpanel which is a standard source of UK consumer intelligence. The data sampled refers to the London area, spans from 22 December 1996 through 14 December 1997, and included 1090 panelists who made 7606 purchases among the seven top brands (Frosties, Choco Flakes, Choco Krispies, Rice Krispies, Sugar Puffs, Shreddies, and Wheetos).
marketed at children as if they were in total control of their food choices” (Robinson, 2000; p170).

Proponnet (1997) reports on a pan-European survey that in general supports the findings of Robinson (op. cit.)\(^{28}\). So during the week and at weekends, children decide on their own breakfast (70% and 69\(^{29}\)), mother decides on lunch (55% and 76%) and dinner (74% and 73%).

Ogden and Alderson (1999) were interested in mothers’ food choices for themselves and how that related to their choice of food for their children. Although there are good grounds for assuming that the mother in particular has an important role to play in the complex interplay of factors that determine what the child eats, little is known about the relationship. A questionnaire study completed by 218 mothers of children aged between 5 and 11 years in England showed that mothers tend to feed their children in a less healthy way than they feed themselves. There is a paradox here as the mothers do state that health (e.g. nutritional value, long-term health) is more important when choosing for their children. The authors suggest that alternative methodologies to questionnaire-based research are required as this approach is particularly sensitive to social desirability bias\(^{30}\). In addition motivations (what people want to do) and subsequent behaviour (what they actually do) often do not correspond and the motivation to eat healthily may not be translated into healthy eating (Povey et al., 1998).

Edmunds (nd) evaluated a project called Grab 5!. The aim of Grab 5! was to promote fruit and vegetable consumption amongst 7-11-year-olds with a focus on low-income families and samples were taken in Lambeth, Leeds, and Plymouth. Organisational support (steering group and local project officer) was provided and schools were encouraged to participate in the scheme. Material in the form of posters, action packs etc. was provided to each school (26 schools were identified as participating) and outcome evaluation was based on self-report questionnaires completed by 1377 children and school staff assessing knowledge, attitudes, and beliefs toward fruit and vegetables; changes in fruit, vegetable, and snack intake; and school-based activity generated by the scheme with the material provided. Results showed that there was a significant increase in fruit consumption together with a reduction in high fat snack consumption; an increased knowledge about fruit and vegetables and a greater preference for healthy food choices. Process evaluation (what had worked for whom and in what circumstances) used more in-depth methods such as focus groups, diaries, and interviews but Edmunds provides less information on this. Conclusions stress the need for organisational support, integrating such interventions into

\(^{28}\) Robinson do not cite Proponnet’s study although it was published in a book whose title (Children’s Foods) would have been of interest to Hill and which was published three years before Robinson’s article appeared.

\(^{29}\) Data was presented separately for ‘week’ and ‘weekends’ and data are presented in brackets for these two respectively.

\(^{30}\) One of the demand characteristics of questionnaires is a social desirability bias where respondents provide responses that they think show them in a positive light rather than giving an honest reply.
the activities of the school, and providing material that is flexible enough to be adapted by teachers to the local community setting.

Waters (1999) gives examples of child-centred packaging with educational, play, and entertainment potential that are used in casual and family restaurants. So: “Burger King’s latest major promotion, the blockbuster *Pokémon* movie tie-in, the bags, cups, fry cartons, even the wrappings feature the popular characters and messages on how to collect the trading cards. Often, fast-food restaurants box their kids meals in punch-out containers that children can use as backdrops, tunnels or even castles to accompany the toys inside. Drinks come in collectible cups, either glass of plastic” (op. cit.)

Davies et al. (1994) discuss the importance of labelling in the theoretical context of the Elaboration Likelihood Model (ELM) of information processing and persuasion. Although the ELM has been applied to advertising messages, it has not been used before with regard to labelling information. Much information on labels relates to food additives and is there in order to satisfy Government regulations. Although food intolerance is a negligible risk, food aversion (which is an emotional reaction driven by negative reactions towards additives) is not insignificant as the issue is raised in the popular media and by various food action groups. The need to provide correct and clear information on labels should be considered in the context of consumers’ judgements of the relevance of that information. So for example if the purchase is an impulse buy, or if the consumer is not knowledgeable about food content, then the information will tend to be processed peripherally and cues such as perceived credibility and strength of the brand will dominate. But if the information is presented on a purchase which is a considered and involved decision, or if the source of the information is credible (such as the HEA or FSA) from the point of view of food-related information then it is more likely that the consumer will process the information using a central route. The authors conclude with a plea to manufacturers and distributors to take their labelling strategies seriously and to avoid a defensive strategy of minimum disclosure of information. It is important to encourage central processing where the labelling information is an integral part of the marketing mix. In this way long-term consistent brand positioning can be achieved, central processing of all information is encouraged, and attitudes formed are more persuasive and resistant to change.

**The Great Food Labelling Debate**

The Consumers’ Association has hit out at what they see as unfair food labelling practices and highlighted, among others, ‘low fat labelling’ using expressions like ‘fat free’ and not naming the ‘full 8’ nutrients (Anon., 2003). Chomka (2002) outlined the food labelling debate in 2002 with the FSA commenting that any change should happen at the European level and that labelling policies of individual companies can confuse the consumer.

31 An authoritative source (Young et al., 1987) has estimated that between 0.03 and 0.15 per cent of the population might be adversely affected.

32 Which are – energy, protein, carbohydrate, sugar, fat, saturates, sodium, and fibre)
The ethics of labelling are discussed in a considered paper by Pearce (1999) in the light of the Co-operative Wholesale Society’s (1997) stance on food labelling practice and policy. The central issue in the debate surrounding labelling is the question of ‘asymmetric information’ where one party knows more about a product than the other. The existence of such information threatens the \textit{laissez faire} model of free market functioning as this model presumes that markets have perfect information. Pearce’s argument is that labelling is an intrinsic part of the general packaging and presentation of a product and must be considered in that context. Willman (1997), for example, has estimated that branding is worth up to a 30% premium on price and the general presentation of the product to the consumer in all settings where that person encounters the branded good or service is vitally important. Pearce identifies seven points that the CWS report discusses and provides a defence. He also suggests that there are three possible explanations for the CWS stance which needs explaining as, on the face of it, “the notion of a firm calling for greater social responsibility seems at odds with economic thinking” (op. cit.; p33). Firstly the consumer-owned nature of the CWS reflects that it is not a full partner in the ‘free market’ mechanism; secondly that it gains a competitive advantage by adopting a stance of corporate social responsibility; and finally that their lead will promote the case for self-regulation especially if other firms follow and that works to the advantage of industry.

The CWS produced a pamphlet entitled \textit{Blackmail} which was an investigation into consumer concerns about the ethics of modern food production and advertising. Since this is an unusual occurrence, an industry involved in food critically examining food advertising, it is worth examining the paper closely. The context was the ITC’s review of its Code of Advertising Standards and Practice that invited interested parties to contribute information. The paper consists of a brief preamble and five annexes. The first is a summary of a document published by \textit{Sustain} and the second is a piece by Dr. Sigman called ‘how advertising exploits children’. This is presented as a set of four vulnerabilities described as four ‘needs’ that are exploited by advertisers. Only one reference is given (Heal, 1999) and the gist of this is that children are harmed by multi-media distractions and that a consequent reduction in stimulation has various benefits such as “enhanced creativity, problem solving, alertness and even musical creativity and performance” (op. cit.; footnote 7). It is difficult to see, even if this optimism is justified, how such a reduction can be achieved given the ubiquity of the present media landscape that is available for children. Most authors (e.g. Palmer and Young, 2003) would provide a more balanced picture of the costs and benefits of media exposure to children.

Sigman’s needs are referred to as the child’s “basic needs and tendencies – which are still raw and unformed” and advertisements directed at children are there “…to exploit them” (op. cit., p9). Stripped of rhetoric this suggests that advertisers produce commercial communications that are designed to invoke a set of needs that are in some sense \textbf{common} to all people as this is the

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\textsuperscript{33} See Anon (2002), where the Co-op’s own labelling protocol is described.
only psychological sense that can be made of the claim. What is being smuggled in however is a presumption that this universality of basic needs reflects a greater weakness or susceptibility if these needs are activated perhaps because they are ancient and part of our heritage as a species, or maybe common to all cultures at all times. Advertisers will attempt to persuade people, draw their attention, make them laugh or cry and use the whole range of communicative devices that have been around since people began to communicate with each other and there is no reason to suppose children will be treated any differently. But there is a debate about the ethics of advertising to children and advertising to this audience certainly does not operate in a regulatory vacuum. Major stakeholders contribute to this debate and have power and influence in the various regulatory bodies that operate in the area. The debate is not helped however by unwarranted cod psychology such as “advertising …disrupts the normal process of child rearing, intervening and subverting a child’s needs and desires when they are most vulnerable and pliable” (op. cit., p9).

The four needs are ‘the need for nurture and protection’, ‘the need for stimulation’, ‘the need for role models’, and ‘the need for peer group acceptance’. These are recognisable as part of the list of needs in the psychology of motivation. Nurture and protection is a fundamental need in Maslow’s hierarchy; a need for stimulation is part of cognitive arousal that drives curiosity and novelty seeking, while the last two are integral aspects of a general social need that enables us act as ‘social animals’. But these are then used with examples of advertisements, none of which are identified, to show how advertisers exploit these needs. For example, “children are interested in glamorous [sic] adult behaviour and learn about ‘normal’ male/female interaction. With this in mind, advertisers are now using sexual symbolism on screen to intrigue young children” (op. cit., p11). No examples are cited and identified as such. The present ITC Code refers to child audiences in great detail and specifically discusses sexuality in advertising.

The last two annexes deal with survey research on children and adults conducted in 2000 by Wardle McLean on behalf of the Co-op. No details of the sample size are given or the ages of the children. The majority (73%) of children has asked parents to buy something they had seen on TV; 71% have bought something to get a free gift or collect tokens towards one; and 29% use pester power to get what they want with 25% saving up pocket money to get it. The methodology used for the adult study appears to be questionnaire based with attitude statements using 5-point Likert response scales together with a ‘don’t know’ option. 85% agreed that ‘there should be stricter rules about advertising to children’ and this result concurs with a result from Young et al.’s (in press) research where 87% of UK parents responded ‘stronger’ to ‘would you like to see stronger regulations or weaker regulations regarding TV advertising to children?’

The child’s understanding of advertising revisited

Much of the report to MAFF (Young et al., 1996) dealt with questions concerning children’s understanding of advertising. One of the main reasons
for this was because if children were unable to understand the point behind advertising then there would be a good case that advertising to children should be regulated with their special susceptibilities taken into account. The general conclusion at that time was that the child can distinguish between television commercials and the adjacent programme at some age between four and seven years. In general children understand the economic and commercial function of advertising before they understand advertising’s persuasive and rhetorical function and an understanding of both of these usually emerges in middle childhood. Has anything changed since that time? Can we make stronger claims about competence? The wording of the original document was carefully hedged largely because much of the research was contradictory with different methodologies being used. The state of the art was advanced however with a much cited review paper published recently (John, 1999). This review of the literature on consumer socialisation of children over the last quarter of the 20th century constitutes a landmark in the literature and it needs to be looked at closely in the context of the child’s knowledge about and understanding of advertising. John’s model of child development, although recognising the validity of much of Piaget’s stage-developmental theories, assumes three stages in the processing of information. Children under seven years of age are seen as limited processors. In the language of information processing they have mediational deficiencies where storage and retrieval are difficult even when they are prompted and cued to do so. Children over 12 years of age on the other hand are able to use various strategies for storing, retrieving and utilising information and that can be done in the absence of prompting and cueing. Between the ages of 7 and 11, however, although children might be able to deploy strategies to enhance information storage and retrieval that are similar to those used by older children, they need to be aided by explicit prompts and cues. How is this theory relevant to the debate about the child’s understanding of advertising? As described above, it is generally accepted with a few exceptions that children under the age of 5 years only see advertising as entertainment and have a limited understanding, based on the perceptual qualities of spot advertising (they are short episodes between or within programmes). The evidence also points toward a growing understanding emerging between 5 and 8 years of age of the various functions and intents behind advertising - that it is promotional, informative, commercial, and persuasive. And yet, according to John (op. cit.), children still have a problem with advertising until 12 years of age. This problem relates to access to and utilisation of that knowledge. In a sense, although the understanding is there and can be used critically to cope with advertising, it may not necessarily be accessed and used in evaluating advertising messages.

John also makes a case that there is a skill concerning the child’s ability to take the perspective of other people (Selman, 1980) that develops from early childhood to adolescence and that these developmental stages should be taken into account when considering the child’s understanding of advertising. Children before the age of six years are unable to take the perspective of other people and view the world from their own point of view. Between 6 and 8 years of age children realise that others have different opinions or motives,
but believe that this comes from the other person having different information rather than adopting a different perspective on a situation. Between 8 and 10 years children acquire an understanding that people with the same information can have different opinions or motives and can take this into account and consider another person’s point of view. Development does not stop at 10 years of age, however, and being able to simultaneously consider the other person’s point of view emerges from 10-12 years. This skill is vital in interpersonal negotiation and persuasion when people interact socially. Finally the young adolescent can take the mature detached position of seeing another person’s perspective as relating to social group membership or the social system within which they operate.

Both of these developmental sequences - information processing and perspective taking - are important when considering how literate children are when coping with advertising in all its multifunctional aspects. Being able to acquire and, importantly, utilise understandings about advertising and being able to understand the advertiser’s point of view seem to be important elements of advertising literacy. Does this mean then that advertising to children under 12 is unfair and that this evidence should be used when regulating and controlling what, if any, advertising should be shown to children? Certainly the evidence should be considered and it is not surprising that understanding such a complex genre like advertising has a developmental trajectory at least to adolescence. Bjurström (1994) was suggesting this when he concluded the relevant section of his Report with the words “…it is only around or after the age of 12 that we can be more certain that most children have developed a fuller understanding of the purpose or objective of advertising” (op. cit.; p42). This answer in my opinion is very different from the answer to the question ‘when do most children have an adequate or ‘good enough’ knowledge of the intent and purpose of advertising’. Most of the evidence (in cultures with an experience of advertising) points to 8 years of age as the time when this emerges. It may be that children older than 8 years but younger than 12 apply this knowledge erratically but that could apply to many people of different ages. The minimal requirements for understanding that advertising has an intent to persuade people to buy goods and services, that it informs and entertains but presents promotional material, are in place in most children by eight years of age.

Martin (1997) conducted a meta-analysis of the child’s understanding of the intent of advertising. A meta-analysis mines the various databases and archives where results are reported in academic papers and computes an effect size. It is then possible to amalgamate the results from several studies in order to draw general conclusions\(^{34}\). Although the author does not cite any single definitive age as the consensus when advertising is understood, two conclusions are worthy of note. One is that the data from 30 years of published work “suggests that younger children understand better the intent of

\(^{34}\) A problem with meta-analyses is that papers without significant results or else those that don’t show differences between groups in the expected direction stand a worse chance of being published in peer-reviewed journals where the pressure to publish is extensive and growing, than papers which do provide significant results. Consequently there is a bias in favour of the status quo or received wisdom at the time.
advertising now than in previous years” (op. cit.; p214) which would suggest that kids are getting more sophisticated with advertising. The other more sobering finding was that the samples were limited to predominantly white children and that when African-American children were sampled the lack of awareness of the purpose of advertising was considerably greater\(^{35}\).

There is some evidence that some 5-6-year-olds can understand one aspect of the genre called television spot advertising. Advertising is promotional. By this I mean that it only communicates the best about a brand. In this sense it is similar to other forms of promotion in everyday life such as self-promotion or the promotion of one’s family or team or immediate social group. There is an identifiable genre of communication that has the quality we can call ‘interested’ (May, 1981). That means the communicator has a particular goal to achieve and the communication will be designed with the interests of the communicator in mind. Many communications are ‘interested’ in that sense and it could be argued that in today’s electronic world with the constant ebb and flow of institutional communications and interpersonal e-mails, texts, and face-to-face communications, the dominant mode is an interested one. We’re all pushing to promote, to advocate, to get our own way. May’s small paper (which deserves a wider audience) has a resonance at the beginning of the 21st century. The last refuge of disinterested communication is the school or the academy - maybe that is why it is seen as sacred and why we want to maintain it as a commercial-free zone.

Young (2000) wanted to measure the child’s understanding of promotional communication by giving children examples of television commercials that broke the promotional rule and then asking them if these ‘rule-breakers’ would make suitable TV commercials. Seven TV commercials were chosen from a pool of TV ads that had been built up over 20 years. Each commercial had a structure which Berger (1974) has called the ‘pain-pill-pleasure’ narrative. This narrative starts with a problem that gives the actor some pain or discomfort. Maybe it’s washing that’s not whiter-than-white, or a cough that keeps one awake, or a face that feels dry and chapped in cold weather. The brand is brought into the narrative and the final part shows the pleasure and absence of pain that consuming the brand brings. We presented a video of each of the 7 commercials to each child but the last part (the pleasure bit) was missing. Afterwards we showed him or her three alternative pictures simultaneously. One was a still from the actual ending showing the actor smiling broadly with the branded product in view and the second was a control with the actor’s face changed to make it look neutral and no brand in shot. The third was a shot from the missing ending with the brand but the images

\(^{35}\) It is always difficult to establish just why certain socio-economic groups are unaware of the purpose of certain social arrangements such as advertising. I have argued before (Young, 1990), that awareness requires a certain critical detachment and recognition of process - where things come from and where things are going to. Such an understanding is important only for those groups who are empowered to effect changes or else this knowledge is irrelevant to their daily lives and an existential recognition that ‘life’s like that’ is a more appropriate response. Certainly it would be patronising and unacceptable to attribute a lack of awareness to a certain lack of ‘savvy’ with these cultural forms. In addition there are all sorts of problems with the testing or assessment situation to do with lack of interest, wariness of ulterior motives behind the questions, and so on.
had been changed so that the ending was funny and amusing but the brand was shown in a negative way. For example in an ad for face cream the third picture that the child could choose showed the actor’s face covered in spots and in another for cough candies, the actor was shown being violently sick! The child was then asked to choose the picture that ‘would be the best one to use if the ad’s shown on TV’.

133 children aged from 4-5 years to 8-9 years were tested. It was found that the majority of the 4-5 year-olds chose the funny ending that broke the promotional rule and this result confirms what we know about younger children’s understanding of advertising. After that age however, the majority of children demonstrated a growing awareness that it was not appropriate to choose an ending that provided a negative portrayal of the brand and, by the age of 7 to 8 years of age many were capable of justifying their choice by claiming that ‘you wouldn’t be able to sell any stuff if you said bad things about it’.

So somewhere between 5-6 years, through the years of middle childhood, until adolescence there is a change and growth in advertising literacy which needs to be charted. There is some evidence (see Young, 1990) that between 5-6 and 8-9 years of age the child begins to understand that advertising is not just promotional as described above, but is also assistive (provides information), commercial (relates to buying and selling), and persuasive (tries to get you to buy) - although there is some conceptual and methodological confusion in the literature. Some recent papers have informed the debate.

Bulmer (2000) conducted focus groups with 5-8 year old children in New Zealand. Although the classic focus group is based on a vision of talk and discussion as a spontaneous process within a group of participants where themes emerge naturally without intervention, the groups used by Bulmer appeared from the paper to be more directive with the facilitator asking questions. Results are presented in tables with percentage of occurrence. She concluded that 5-6-year-olds found television advertising informative and entertaining. They were aware of the fact that TV commercials ‘told you about things to buy’ and what was ‘new in the shops’ but there was no reference to the persuasive function of advertising until about 7 years of age when comments like ‘gets you to buy things’ predominated. Bulmer certainly claims a sophisticated level of understanding with her 8-year-old groups.

“By eight years of age almost all children seemed to have some concept of the multi-stage process of supply chains and believe that profit is the desired result of most advertising. There were elaborate explanations of the commercial motivations of advertisers. These children also understood that advertising devices are used to enhance persuasion and motivates desires and buying behaviour” (op. cit.; p11).

So, for example, she cites the following response as typical of 8-year-old explanations:
“Getting people to come to your shop and get them to give you so much money to buy groceries and stuff, and get so rich that you can buy anything you want”.

Although the above quote is slightly ambiguous about which one of the parties to the transaction will ‘get so rich…’, the fact that children of this age can take into account the actual and anticipated consequences of economic transactions based on the results of promotional activity demonstrates a telling sophistication in New Zealand children. It is important though to take focus group data as indicative of the capabilities of some children and not as providing normative data.

Pine and Nash (2002) presented evidence that young children (ranging from 3.8 to 6.5 years) who watched more commercial television requested a greater number of items from Father Christmas and also requested more branded items. They also took a sample from Sweden where advertising to children is not permitted and found that the Swedish children asked for significantly fewer items. In addition logs were kept of what was advertised on commercial television in the UK during the research period but TV viewing data by the child was assessed by self-report or parent’s report. It is difficult to draw conclusions however from studies that attempt to correlate viewing patterns with subsequent behaviour and it would certainly be inappropriate to draw conclusions about the effects of Sweden’s lack of TV advertising to children on the Swedish child’s lower interest in the world of goods and services. There is no way of knowing, for example, the extent to which parental mediation or cultural mediation affects the process of requesting gifts from Father Christmas. For example, children who watch a lot of commercial TV might come from a different parental subculture with different values and attitudes toward the branded, material world of consumption compared with children who claim, either themselves or through parents, not to watch much commercial TV. Swedish culture might have a completely different set of values surrounding what’s ‘good for’ children as contrasted with UK kids and that could mediate.

Chan (2000) looked at Chinese children’s understanding and comprehension of television advertising in Hong Kong. A quota sample of 448 children made up of 32 girls and 32 boys from kindergarten and grades 1 through 6, were interviewed in May 1998. The results indicated that children in grade 2 (aged 7-8 years) were beginning to understand what television advertising was and were aware of the persuasive intention of television advertising. Over one-third of older children from grade 4 (9-10 years) understood that television stations carry advertising in order to make money. Like children in the West, the main reason for liking and disliking commercials depended on their entertainment element. An understanding of television advertising, recall of brands from slogans and comprehension of advertising content were consistently related to the cognitive development of children. Brand recognition from liked and disliked commercials was strong. Chan’s study used interviews with a large sample of children without showing actual television commercials and yet even under these conditions 61% of children by 7-8 years of age were able to identify the persuasive and commercial
function of advertising (op. cit.; Table 2). It is interesting to note that this methodology where results are simply obtained by interview with no televisual ‘props’ still resulted in a majority of children understanding these crucial aspects of advertising by 8 years of age. Thirty years ago, the research of Ward and his associates, using a similar methodology, did not show such an understanding even by 11-12 years of age. In fact (Young, 1990; chapt 2; Table 3) only a quarter of 11- to 12-year-olds in Ward’s original studies were able to provide an explanation of why commercials were shown on TV that demonstrated an understanding of selling and profit motives. There is a strong case that children’s understanding in this area, although influenced by cognitive development, will vary depending on the cultural availability of advertising. As advertising becomes more common, children become more sophisticated in their levels of awareness and comprehension. Chan’s research has been extended to mainland China and preliminary results with focus groups show an emerging understanding by 9-12 year olds in Beijing (Chan and McNeal, 2002).

Jarlbro (2001) reviewed the literature and research on children and television advertising conducted during the last six years of the twentieth century. It complements an earlier survey initiated by the Swedish Consumer Agency (Bjurström, 1994) which covered work done up to 1994. Jarlbro’s study is far from comprehensive in its coverage of the research and it tends to focus on and criticise the research findings in the publications used by the advertising industry to defend television advertising to children. The study’s aim is, therefore, explicitly polemical, and must be seen as a defence of the Swedish ban on television advertising directed to children (up to twelve years). The polemical nature of the study seriously undermines its claims to scrutinise the research being done from a scientific viewpoint. This defect can be detected in Jarlbro’s presumption that it is the funders of any research who determine the results of any research on television advertising and children. For example, she argues that the fact that research results do not agree on the age at which children can distinguish between ads and programmes on TV, could be explained by the use of different survey techniques and that the choice of these techniques ultimately is “a consequence of who financed the survey” (p13). Although the use of different methods and techniques could – as one factor among others – explain why research results do not entirely coincide, there is no over-all correspondence between the choice of methods and the funding of the research on TV advertising and children. The choice of methods and theoretical approaches varies among researchers funded by governmental authorities, consumer agencies and consumer organisations as well as among those funded by the advertising industries or others with interests in TV ads to children. Supporters of advertising or opponents of advertising don’t solely rely on research they have funded themselves and can take into account any results in the public domain with a preference for those that come through the peer review process. Jarlbro’s unwarranted conclusion that the funding party, so to speak, “pays” for research results gives her report a flavour of anti-intellectualism, since it more or less explicitly denies that there is any independent and free research regarding how children are affected or influenced by TV advertising. Jarlbro’s view is that the research on TV ads and children should be independent and free from non-
scientific interests. However, for Jarlbro this view poses an intriguing paradox, since she so obviously speaks in the interest of the Swedish Consumer Agency, the group that has funded her report.

Moore and Lutz (2000) were interested in how children of different ages related advertising of a product or brand to the experience of consuming or using it. Robertson and Rossiter (1974) had argued that discriminating between products as advertising and products as experienced was one of the skills that made up the ability of being able to understand the purpose of a television commercial. In addition there are several theories of how adults integrate the commercial communications surrounding a product and the anticipated and actual experience. For example, a person who is literate with advertising will assume that the brand will be presented in the best possible light and will partially discount claims made in promotional material, thus forming lower-order expectations of the actual consumption experience.

Using a mixture of quantitative and qualitative techniques they found that younger children, aged 7-8 years, had greater difficulty integrating the world-within-the-ad with the product-as-experienced. This may be a result of the limitations of the information processing capacities of the child at this age or it could be that the younger children are less motivated to carefully reconcile the world of advertising with its hyperbole and fantasy, with the world of trial purchase and consumption - simply because they are less involved in the economic act of purchase and consumption either as an individual or as a younger member of the family. Older children, aged 10-11 years, were more capable of integrating the information available in the brand as represented in the advertisement with the experience of consumption in that exposure to the ad was able to ‘frame’ the experience of the product. So, by the age of 10-11 years children are capable of taking advertising into account by generating expectations of what the product might be like based on their knowledge of the promotional nature of advertising.

Lawlor and Prothero (2002) provide a review of the research that has accumulated, mostly during the seventies and eighties, concerning children’s understanding of advertising intent. They conclude that “…an approximate age of seven to eight years is crucial in terms of an emerging ability on the part of the child to discern and evaluate the advertiser’s persuasive intent” (op. cit., p495) and there is an emerging consensus in the literature on this now. However a survey of the most recent work cited in this Report would suggest there are no grounds for complacency here and one should consider children’s understanding in the context of two caveats. One would comprise the findings reviewed by John (1999) where the importance of cued information processing until 10-12 years of age is recognised. Children may understand but applying this understanding to a viewing situation may be limited in children until late childhood. Martin’s (1997) meta-analysis and the skills shown by Bulmer’s (2000) participants show that the range of abilities in children can vary and that although understanding is obviously age-related, there is still a wide variation within the same age band.

36 In other words the consumer sees the marketing and responds ‘well - they would say that anyway’ (discounting claims) and ‘I bet it’s not as good as all that’ (lowering expectations).
Lawlor and Prothero (op. cit.) do mention the importance of looking at the impact of advertising from the child’s perspective and this issue was taken up by Preston (2000) in an interesting and imaginative study which looked at the child’s understanding of advertising regulations by using focus groups. The researcher talked about regulating advertising with 10-11-year-olds and explored their responses. Respondents were able to understand a selection of regulations and also held their own opinions why – in their opinion – they were being misled. Several comments were to do with the symbolic nature of the ad itself where the ad represents reality and this representation is designed to add a particular gloss to the branded good or service. Not surprisingly, some children discovered that the mundane reality of the toy did not correspond to the expectations generated by the ad itself!

**What’s on? Recent research on the content of advertising to children**

There was an extensive section in the original MAFF Report that examined the content of advertising of food to children from the earliest studies in the early 1970s to the latest studies reported at the time of writing (1996). Although there were some criticisms of the methodology used to obtain a representative sample of ‘what was on’, the general conclusions reached were that the advertising of foods to children had not changed much and was still dominated by certain foods – or rather brands of these foods\(^{37}\). Indeed the latest piece of research (Gamble and Cotugna, 1999) examines the history of the issue and reports on some recent research. Gamble and Cotugna compare their findings with other studies that have been conducted in the United States since 1972 and conclude that “the types of products advertised [to children] have remained constant over 25 years” (op. cit., p264; text in square brackets is added). Breakfast cereals are the most advertised food and this has remained constant since 1972.\(^{38}\) The next most advertised products were convenience foods (canned dessert, frozen dinner, ‘drive-ins’), a change from 1994 when the 2\(^{nd}\) most advertised products were cookies, candy, gum, popcorn, and snacks. They note that there have been a negligible number of TV commercials for fruit and vegetables over these years.

There are several methodological problems in any research of this type where data on media content is gathered and analysed. Firstly there is the question of where to look. Most research in this area has identified Saturday mornings and the after-school time as the places to look as the programmes shown are often aimed at children of different ages. But more children in absolute terms will actually be watching (as part of a family audience) during prime time in early evening and although the demographics of the Saturday morning audience is heavily weighted towards children the absolute numbers of children watching then is less than say early Saturday evening. Since the

\(^{37}\) Branding is intensive in a competitive market as is the child market and there are many brands of the same product vying for the attention of the child and family. There is no reason of course to assume that the ‘diet’ in the sense of the statistically most frequently advertised brands will then relate directly to the diet of the child.

\(^{38}\) 38.5% in 1972; 41% in 1976; 31% in 1987; 39.3% in 1994; 37.8% in 1996; op. cit., p264
argument that is used by researchers who gather this sort of information frequently appeals to public health issues, one would expect there are more children who are potentially ‘at risk’ from watching food advertising during prime time than are at risk on Saturday mornings simply because there are more ‘susceptible minds’ being targeted. The second methodological problem is concerned with sampling and how to obtain a workable sample of TV commercials that is representative of all the TV commercials children might see. I have found evidence (Young, 1990) that there are wide seasonal variations in the content of advertising to children and in the content of after-school advertising at different times of the year and this should be apparent to even the most casual of television viewers. So toy advertising dominates before Christmas for obvious reasons and it is arguable whether the after-school period at different times of the year is solely devoted to children’s products. The important point is not that this was found at a particular time in UK television advertising but rather that there is evidence that time of year is an important sampling dimension. I have looked at the evidence in detail elsewhere (Young, 1990; Young et al., 1996) and many of the papers that are cited as providing evidence on what’s advertised on children’s TV rely on inadequate sampling strategies. An ‘adequate’ sampling strategy should take into account possible geographical variations within a country as well as weekly and seasonal variations.

Given these caveats on the data that has emerged, the latest source (Gamble and Cotugna, op. cit.) does provide some interesting information. They sampled four broadcast channels (ABC, CBS, FOX, and Nickelodeon) between 7am and 11am on a Saturday morning in mid-January 1996. This sampling procedure is by no means representative of ‘what’s on for kids’ as I have argued above. The picture that emerges is as follows, where each occurrence of a commercial is the datum: Out of the 353 commercials identified, 63% were for food. In additions there were 33 public service announcements (PSAs) and “8 were nutrition related, mainly focusing on healthy snacking tips or the 5 A Day campaign” (p263). What’s in the foods? 56% were for breads, cereals, rice and pasta. Fast-food restaurants were next in popularity (28%). The third major group was classified as ‘fats, oils, and sugars’ and is a designated category used by the United States Department of Agriculture (USDA) if the primary ingredient by weight is either fat or sugar – there were 15% of these. That brings the picture of food advertising to children up-to-date and we can see that the latest research confirms a trend that has been noted for over a quarter of a century.

39 NBC was not sampled as it had eliminated Saturday morning children’s programming in the early 1990s
40 This would suggest that heavy advertising of the same brand and even the same ad is counted several times
41 All percentages in the text are rounded to the nearest integer
42 A reference to a ‘healthy eating’ initiative of at least 5 pieces of fruit or vegetables a day
Does watching TV ads affect food choice?

In this last and final section we turn to studies which claim a direct relationship between watching food advertising and food choice.

Hitchings and Moynihan (1998) were interested in the relationship between the foods recalled as having been seen on TV ads and the foods consumed (measured by self-report food diaries). What did they do? Their sample was 41 (although they had “initially approached” 169 children). All the data is self-report obtained using diaries and at interview. The interviews involved free recall of TV ads for food over the previous two weeks but the recording of this information is a bit ambiguous as the following extract exemplifies (I have added numbers to the sentences for later reference purposes):

1) “Children were interviewed at school and were asked to verbally recall the television advertisements for food which they could remember seeing on television recently (over the past two weeks).

2) No prompting for answers was given, in order to mimic to [sic] the situation when a child requests a food without first seeing the product as a visual memory aid.

3) Any advertisements which the child said they [sic] could remember but for which they could not remember the product name [italics added] were not included.

4) Any advertisements which the children remembered which did not fit into the food categories studied were not included in the final analysis.

5) If a child remembered more than one advertisement for the same food they were only credited once for remembering the food advertised” (op. cit., p513).

#1 and #2 are clearly free recall procedures. #3 is ambiguous as the product name could refer to the brand name (e.g. Frosties), or the name of the product (sugared cereals, or breakfast cereals). Given the extent to which the debate about food promotion to children hinges on the level of aggregation where advertising has an effect, then either the writers are rather cavalier in their scientific writing and the reviewers tolerate that or the writers (and reviewers presumably) are ignorant of the significance of this debate in the literature. There are other procedural questions that remain unanswered like what happens if the child remembers a significant feature of the brand but not the name (e.g. ‘the one with Tony the Tiger…’) and how many advertisements were discarded at #3, #4, and #5?

The presentation of results however would suggest that brands are being recorded as data because correlations between number of food advertisements recalled and “number of foods eaten” (op.cit., Table 4) are presented within each food category. The correlations seem very high - Spearman’s rho of 0.58 on average and significance level of 1 in a thousand
by chance even with a small N of 41. Most of the literature on media effects (such as exposure to violent content predicting aggressive behaviour in the long term for example) need large panel samples of several hundred studied over time and are very costly. A closer examination of the data in Table 3 however shows that children can recall on average about 3 ads for different breakfast cereals although the range spreads from zero to 12. On average about 1 breakfast cereal is remembered and eaten. In the scatterplot in Table 5 the correlation computed is between the number of food advertisements recalled and the number of foods eaten. I'm not sure what is being established here as some kids don't remember many ads and consume a smaller range of brands, others remember a lot of ads and consume a wider range of brands. If this interpretation is correct (and the terminology is not precise) then the authors are saying something about family styles of consumption where some families pay a lot of attention to advertising and consume a wide variety of brands of foods and others don't and that systematic relationship is reflected in Spearman's rho. It says nothing about the extent to which advertising might increase consumption of food categories.

The authors are conservative in their conclusions and the last paragraph (op. cit., p517) states that “The present data support the hypothesis that television advertising may influence food choice” and that such advertising “…may…be an important consideration in dietary interventions aimed at children”. The Abstract (which is read by more people and will be available on various databases) is stronger. “The results support the hypothesis that television advertisements influence food choice” (op. cit., p511).

In a thoughtful piece, Robinson (1998) examines the issue of whether television causes childhood obesity. He argues that cross-sectional studies have established a consistent and small correlation between adiposity and television viewing among children but this does not establish the direction of causality. In order for this to be established, precedence must be established as a necessary (although not sufficient) condition. In other words if television viewing is a true risk factor for childhood obesity then television viewing should predict future obesity. Of the two prospective studies cited by Robinson (Dietz and Gortmaker, 1985; Robinson et al., 1993), one made a weak but significant prediction and the other didn’t. In order to establish that television viewing is a necessary and sufficient condition for childhood obesity experimental studies are needed where manipulation of the risk factor changes the outcome. At the moment then the best explanation is that the relationship between television viewing and body fatness is caused by both reduced energy expenditure from displacement of energy intake, and increased dietary intake. Both sides of the equation might play a role.

Coon et al. (2001) surveyed 91 parent-child pairs in the US. The children were aged 9 to 11 years and they measured the extent to which children ate with the TV on and their consumption of food types using multiple regression controlling for socio-economic status and other covariates. Children from high television families derived less of their total energy from carbohydrate and consumed twice as much caffeine as children from low television families. In
addition there was evidence that the dietary patterns of children from families where television viewing is a normal part of meal routines could include fewer fruit and vegetables and more pizzas, snack foods, and sodas than the dietary patterns of children from families in which television viewing and eating are separate activities.

In summary, there are several papers that look at the role of television, and by implication advertising on television, on food related behaviours. However television viewing, viewing of advertisements, family life-style, sedentary habits, and dietary habits and preferences are often confounded in these studies and it is not possible to make claims that watching food advertising *per se* has a direct effect on food choice. Indeed television contains many and varied representations of food and their consumption apart from those contained in the genre of television advertising. Dickenson (2000) reported on a study that was carried out as part of a MAFF initiative on *Food Acceptability and Choice*. He was interested in the role of television in the food choices of 11-18-year-olds and his research team collected data over six weeks in the autumn of 1995 to give a composite two-week block of television output to analyse. They sampled from terrestrial television and concentrated their analysis on children’s and prime time television, looking for visual and verbal references to food so that an assessment of the amount of food and eating that television output contained could be made. They were interested in the way that television portrays food, and the frequency with which food appears across programmes and across advertisements. They concluded that television offers a range of images about food. Healthy and less healthy eating, and nutritious and less nutritious foods, were represented on our screens from a variety of sources. Television offered a resource that helped to shape food choices. So for example over a quarter of the references to food were to the category ‘fruit and vegetables’ and 15% of references were made to the category ‘meat, fish, and alternatives’. The audience was capable of distinguishing between ads and programmes, and was aware of the need for ads to exaggerate and be selective in their output, and of the desire of advertisers to attract consumers to products and brands. The ‘diet’ portrayed on this different genre of television was not the same as that found on television commercials for children.
References


