

IDEOLOGY MASKED AS SCIENTIFIC TRUTH:

THE DEBATE ABOUT ADVERTISING
AND CHILDREN

Dr. John C. Luik
The Democracy Institute

Foreword
Professor Todd J. Zywicki
George Mason University School of Law

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George Mason University School of Law

In the 1970s, the United States Federal Trade Commission launched a rule-making effort that culminated in the release of an FTC staff report that concluded that all advertising directed at children below a certain age was inherently “unfair” and recommending a ban on all advertising directed below children of a certain age or on television programs where the audience comprised above a certain percentage of young viewers. By harnessing questionable science to extraordinary bureaucratic bravado, the “Kid-Vid” rulemaking exemplified the federal government’s regulatory overreach of the era, leading to a congressional backlash and paving the way for the deregulatory efforts of the Reagan Era. Even the *Washington Post* ridiculed the effort, noting that parents were the guardians of children’s viewing and eating habits and even dubbing the FTC the “National Nanny.”

But like an apocryphal Twinkie that can supposedly retain its essence for decades, the idea of banning advertising directed at children has resurfaced after decades in hibernation. Thirty years ago it was charged that junk food was giving kids cavities, and only a ban on junk food advertising could save the teeth of America’s children. Today, with the teeth of America’s children intact, the purported problem is that junk food is making them fat. Coincidentally, even though the problem has changed, the remedy remains the same—a ban on advertising directed at children and, in particular, a ban on advertising “junk food.”

National Health and Examination Survey data indicate that America’s children have gotten heavier over the course of the past generation. But how much heavier is a matter of interpretation—the median BMI of America’s children has increased only 4.5% over a period of two decades, although BMI at the 95th percentile increased

¹Professor Zywicki served as the Director of the Office of Planning and Policy at the Federal Trade Commission from 2003-2004. He clerked for Judge Jerry E. Smith of the U.S. Court of Appeals for the Fifth Circuit and worked as an associate at Alston & Bird in Atlanta, Georgia. He received his J.D. from the University of Virginia (1993), where he was executive editor of the *Virginia Tax Review* and John M. Olin Scholar in Law and Economics. Professor Zywicki received an M.A. in economics from Clemson University (1990) and an A.B. with high honors from Dartmouth College (1988). He is the author of more than 30 articles in leading law reviews and economics journals.

16%. Moreover, as Dr. John Luik notes in this Monograph, this weight gain has leveled off over the past several years. On average, therefore, American children do not seem to confront a widespread obesity crisis, although there is a growing problem among the most overweight kids. Moreover, although the problem remains most severe among poorer sectors of society, the fastest-growing segment of overweight children is in the top income quintile of American families.

If the exact estimate of children's overweightedness is elusive, pinpointing the causes of the rise is even more difficult still. Theories abound, and of the various theories the notion that children's exposure to advertising is a substantial part of the problem seems unlikely. Finally, as I have observed elsewhere² (and Dr. Luik concurs), children are actually watching less television than they were a decade ago, and the overall exposure of children to television advertising has actually declined while obesity rates have risen. Although children are watching less television, they are not outside playing baseball and running around. According to the Kaiser Foundation, children now spend an average of forty minutes per day watching videos and DVDs, twenty minutes a day playing video games, and twenty minutes more on the computer and Internet. Thus, although television viewing is down, kids are spending more time on other sedentary activities such that children's overall "screen time" has risen. As Dr. Luik notes, available evidence fails to show that kids are either viewing more ads or eating more. On the other hand, there is little doubt that there has been a substantial decrease in exercise and physical activity among children, a development that Dr. Luik documents with impressive detail in this Monograph.

The notion that advertising is making kids fat founders on another set of inconvenient facts—America's adults have been getting fatter faster and sooner in time than America's children. Whereas the median weight of American children has increased 4.5% over the past two decades, the median weight among adults has increased 9%, and trend lines indicate that adults started getting fatter sooner in time than children.³ Moreover, it seems clear that kids eat what their parents eat, and that changes in the composition of children's diets mirrors changes in the compositions of

²Todd J. Zywicki, Debra Holt, & Maureen Ohlhausen, *Obesity and Advertising Policy*, 12 GEO. MASON L. REV. 979 (2004).

³Patrica M. Anderson, Kristin F. Butcher, and Phillip B. Levine, *Economic Perspectives on Childhood Obesity*, 3Q/2003 CHICAGO FED. RES. ECON. PERSPECTIVES 30 (3d Quarter 2003).

adults diets during the period that obesity rates were rising.⁴ Indeed, one study found that the most important factor influencing children's nutritional intake was parental eating habits and that this influence was fifteen times more important than advertising.⁵ Moreover, it was clear that it was parental eating habits that mattered, not parental supervision of children's eating habits—"Do as I say, not as I do" does not turn out to be an effective strategy for inducing health eating habits in children. In short, kids eat what their parents eat, and parents remain the overwhelming mediating influence on their children's eating habits. Unfortunately, as Luik notes, exercise practices among children have also come to mirror their parents as well. There is little reason to believe that banning advertising on children's television will suddenly make parents eat less or more nutritiously, or exercise more, and thereby do the same for their kids.

It is also questionable whether an advertising ban would even prove effective in fighting obesity; at worst, economic theory suggests that it might prove counterproductive. Bans on advertising on children's television have been tried in some places with decided ineffectiveness. Quebec, for instance, banned advertising on children's television many years ago, yet children's obesity rates in the province are similar to elsewhere in Canada.⁶ Similarly, Sweden banned advertising on children's television over a decade ago, with no apparent effect on obesity rates relative to the rest of Europe.⁷ There is little reason to believe that a ban will be more effective in other countries. On the other hand, a rise in children's obesity rates is not unique to the United States, but occurred in countries with extremely diverse media and advertising cultures. Similar growth rates in children's obesity have been documented in countries as disparate as Haiti, Brazil, Egypt, Australia, and Ghana.⁸ The rise in childhood obesity is thus as common in

⁴Nielsen, Siega-Riz, and Popkin, "Trends in Energy Intake in U.S. Between 1977 and 1996: Similar Shifts Seen Across Age Groups," *Obesity Research*, Vol. 10, No. 5, at 370-78 (May 2002).

⁵R. Bolton, *Modeling the Impact of Television Food Advertising on Children's Diets*, CURRENT ISSUES RES. AD. 6: 173-199 (1983).

⁶*Id.* (citing J.D. Willms, M.S. Tremblay, and P.T. Katzmarzyk, *Geographical and Demographic Variation in the Prevalence of Overweight Canadian Children*, 11 OBESITY RESEARCH 668 (2003)).

⁷David Ashton, Editorial, *Food Advertising and Childhood Obesity*, 97 J. ROYAL SOCIETY OF MEDICINE 51 (2004) (citing T. Lobstein and M-L Frelut, *Prevalence of Overweight Among Children in Europe*, 4 OBESITY REV. 195 (2003)).

⁸Cara B. Ebbeling, Dorota B. Pawlak, and David S. Ludwig, *Childhood Obesity: Public-Health Crisis, Common Sense Cure*, 360 THE LANCET 473, 474 (2002).

countries that have banned advertising, or have radically different marketing cultures, as in the United States.

Indeed, economic theory suggests that an advertising ban could actually prove counterproductive. Product advertising can have two distinct effects—it can increase market demand for a category of products (such as shoes) or it can increase the demand for certain *brands* of products within a market (such as Nike or Adidas tennis shoes). Advertising that increases market demand for a product is informational advertising—it alerts consumers to the existence of a product, its functional attributes, or its price. For instance, empirical studies show that permitting advertising of eyeglasses or professional services (such as legal services) tends to lead to increased competition in the market, leading to greater consumer choice, reduced prices, and eventually to increased demand for the entire category of products and services. Advertising a new product, such as an iPod, also tends to increase demand for the entire category of products (e.g., mp3 players). Banning informational advertising will lead to reduced competition and higher consumer prices, thereby reducing consumer welfare.

Most advertising, however, has the intent and effect not of increasing the market demand for a product, but rather, simply to increase the market share of certain brands of products relative to others. Thus, Coke advertises with the intent of increasing market share versus Pepsi (or preventing Pepsi from stealing Coke's customers through its advertising) rather than to increasing the market for cola drinks or soft drinks generally. It is possible that the effect of advertising by Coke and Pepsi is to increase the overall market demand for soft drinks by increasing information about the product or otherwise increasing its attractiveness, but this is indeterminate as a matter of economic theory. Brand-focused advertising has two offsetting effects that will tend to increase prices and thus decrease market demand. First, advertising expenses increase the cost of selling the product, thereby requiring an offsetting price increase. Second, advertising increases product differentiation among brands, making the demand curve for the product more inelastic and permitting higher prices. The combination of these two factors tends to lead to increased prices among the firms in the market. It is indeterminate as an *a priori* matter whether the increased market demand effect will offset the reductions in consumption as a result of the increased price effect for the products in the market and is instead an empirical question.

As Dr. Luik notes, empirical studies of the markets for cigarettes and alcohol suggests that in those two markets the brand effect predominates over the market demand effect. Thus, advertising in those markets primarily has the effect of switching consumers from one brand to another, and to prevent switching to other brands, rather than leading to increased market demand. In fact, when cigarette companies agreed to stop advertising their products on television, a Philip Morris executive at the time observed that the effect of prohibiting brand advertising would be to encourage competition on price instead, leading to decreased cigarette prices and increased demand.

The question of these offsetting effects is thus an empirical one—and one which the critics of advertising seem wholly ignorant. Indeed, observation of children’s food advertising suggests a high brand effect to advertising, and there seem to be substantial price differences between branded and non-branded products in markets such as ready-to-eat cereal. Prohibiting advertising of such products, therefore, could have the unintended effect of encouraging more robust price competition, leading to increased demand for the very products under consideration.

Given the questionable foundation for believing that a ban on advertising would actually prove effective in combating childhood obesity, it is worth considering the costs associated with such a course of action. Most notable would be the end of children’s television as we know it because many shows, indeed in today’s multichannel environment many networks, would become financially infeasible without sponsor’s dollars. In the Kid-Vid proceedings, the FTC examined the effect of banning advertising on any program where small children comprised more than 30% of the audience and found that the effect of the rule would be the effective abolition of only one program—Captain Kangaroo. The proliferation of cable television channels such as Nickleodeon and the Cartoon Network suggests that the casualty list would be much longer today. In the 1970s regulators were understandably squeamish about driving Captain Kangaroo into extinction; one suggests that parents and regulators would be unenthusiastic about a similar elimination of SpongeBob and his colleagues today as a side-effect of a poorly-supported attack on advertising on children’s television.

Finally, serious constitutional questions would arise under the First Amendment were the government to try to ban advertising on children’s television because of the television viewing patterns of American

families today. In terms of audience percentages, just as with Captain Kangaroo in the past, children still comprise the highest percentage of the audience for traditional children's shows. Nonetheless, in terms of total viewing by children, the largest numerical viewership by children is for non-children's programming, such as *The Simpsons*, *American Idol*, and *Fear Factor*, that families watch together, just as *Happy Days* was the most popular show among children in terms of viewers in the 1970s. Thus, a ban on advertising on traditional children's television programs would not even affect those programs that more children watch in absolute numbers. In fact, under the Supreme Court's commercial speech jurisprudence, the poor fit between the proposed ban and the purported goal of reducing children's advertising exposure would likely render the ban unconstitutional, and a more general ban would almost certainly fail to pass constitutional muster.⁹

As Dr. Luik notes in this remarkable Monograph, the case for regulating advertising hasn't grown any stronger in twenty-five years since the regulators threatened to push Captain Kangaroo over the cliff. The case for banning advertising directed at children remains a tissue of distortions, confusions, and half-truths—"ideology masked as scientific truth," as the title of this Monograph puts it. Dr. Luik comprehensively assesses the current state of the literature and uncovers the myriad flaws and unproven assumptions that animate recent conclusions regarding advertising directed at children.

⁹See *Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n*, 447 U.S. 557 (1980); *Carey v. Population Servs. Int'l*, 431 U.S. 678 (1978); *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525 (2001).

ABOUT THE AUTHOR

John C. Luik has taught philosophy and management studies at a number of universities, has been Senior Associate of the Niagara Institute with responsibility for its work in public policy and leadership and organizational change, and has worked as a consultant for governmental institutions, professional organizations, and corporations in the United States, Europe, Asia, Africa, the Middle East and Latin America. He was educated on a Rhodes Scholarship at the University of Oxford where he obtained his B.A., M.A. and D.Phil. degrees. His academic interests include public policy, particularly the use of science in policy and the question of government intervention to change risky behaviors, the ethics of advertising and business, and philosophy. He is the author of numerous articles and eight books. His most recent books are *A PICTURE OF HEALTH? WHY GRAPHIC HEALTH WARNINGS DON'T WORK*, and (with Patrick Basham and Gio Gori) *DIET NATION: EXPOSING THE OBESITY CRUSADE*. He has previously authored for Washington Legal Foundation two publications: *Dispelling the Myth: Advertising Bans and Alcohol Consumption* and *Losing More than Weight: Unscientific "War" on Obesity Will Trim Personal Freedoms*.

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TABLE OF CONTENTS

INTRODUCTION	1
I. THE USUAL STORY: THE ARGUMENT	4
II. THE USUAL STORY: THE EVIDENCE ABOUT CHILDREN’S UNDERSTANDING OF ADVERTISING	10
III. THE USUAL STORY: THE EVIDENCE ABOUT EFFECTS OF ADVERTISING ON CHILDREN – TOBACCO, ALCOHOL AND FOOD	27
A. Tobacco Advertising and Young People	28
B. Alcohol Advertising and Young People.....	42
C. Food Advertising and Children’s Advertising, Food Choice, Diets and Obesity	50
1. Food Advertising Causes a Diet Which Produces Overweight and Obese Children	66
2. The Hastings Report.....	69
3. The IOM Report	79
4. The Ofcom Report.....	86
IV. THE FOUNDATION FOR A DIFFERENT STORY	90
CONCLUSION.....	93

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INTRODUCTION

Ever since the publication of Vance Packard's *The Hidden Persuaders*, it has been *de rigueur* among the "right-thinking" to dismiss both the advertising industry and its patrons as moral myopics at best and at worst moral outlaws unworthy of consideration in a civilized society. For many in the policy-making establishment, it has become an ideological "fact" that advertising, except in the service of state-sanctioned causes, is an evil that even democracies with constitutional safeguards for commercial speech would be better without.

Over the last several years the critics of advertising have launched a series of careful attacks designed to lay the groundwork for circumventing the current constitutional protections for commercial speech. Their strategy has been to suggest that a number of pressing national issues involving children and adolescents, underage drinking and childhood obesity for instance, require paternalistic limitations on commercial speech.

Thus it is hardly surprising that one of the citadels of "right" thinking, the American Psychological Association ("APA"), has published a report¹ in which it describes advertising directed to children "below the age of roughly seven-eight years as 'unfair.'" According to the APA, the justification for this sweeping characterization is the existing base of scientific knowledge about "young children's

¹American Psychological Association, The APA Task Force on Advertising and Children: *Psychological Issues in the Increasing Commercialization of Childhood*, Washington D.C., Feb. 2004 [hereafter "APA Report"].

comprehension of television advertising” which “presents a clear and compelling case in support of a restriction on all advertising primarily directed to audiences below the age of seven-eight years.” Indeed, there appears to be a small industry on both sides of the Atlantic noisily attacking advertising directed at children. While the APA Report focuses on children and advertising in general, it joins two other recent and more specific studies² which examine the alleged role of advertising in childhood obesity and urge consideration of similar advertising restrictions.

Central to these prohibitionist efforts are strongly held, if poorly argued, views of both advertising and children. All of them purport to tell us what children are like and what advertising is about and what supposedly happens when the two are brought together. This Monograph challenges these views, particularly the conception of children which drives the claim that advertising must be restricted or eliminated because it is inherently and thus irremediably unfair to them.

This Monograph argues, using the APA report and the more recent Institute of Medicine (IOM) report *Food Marketing to Children and Youth: Threat or Opportunity* as examples, that if anything is unfair, it is the case against advertising and children, a crusade with highly questionable assumptions, methodology, evidence and logic. Rather than presenting a balanced account of the existing state of knowledge about children and advertising, the APA and the IOM present only a carefully chosen selection of the available evidence, about both children’s cognitive abilities and advertising. They then interpret that selection in a way to make it appear as if there is a scientific consensus that good public policy demands a ban on advertising to young children. Indeed, rather than a virtuous policy process in which objective *science* precedes policy and in which policy grows out of science, it appears that with the APA and IOM reports on advertising and children, we have a tainted policy cycle in which *ideology* determines policy and science is used to justify a policy adopted on other grounds. Rather than an objective report which acknowledges that much of the evidence about children and advertising is open to interpretation, we are instead presented with

²G. Hastings et al., *Review of Research on the Effects of Food Promotion to Children*, Centre for Social Marketing, University of Strathclyde, Sept., 2003 (hereinafter “Hastings Review”); J. McGinnis et al., *Food Marketing to Children and Youth: Threat or Opportunity?* Institute of Medicine, Washington D.C., Dec. 2005 (hereinafter “IOM Report”).

selective data masquerading as “scientific knowledge” and assembled by partisans in the children-media debate.

What is particularly troubling is that several of the APA Report’s authors are in fact partisans in the advertising and children debate with a long record of advocacy that is not revealed to the reader. For instance, Dale Kunkel argued in 1989 that the “most sound policy for our nation’s children would be to ban advertising from children’s programmes altogether.”³ Brian Wilcox, the Chair of the APA’s Task Force on Advertising and Children and one of the APA Report’s authors, clearly revealed his views on children’s advertising a year before the APA Report was completed. Commenting in the APA’s *Monitor on Psychology* in February 2003 about children’s advertising, Wilcox noted that “We know very well that they wouldn’t be investing the amount of money they do without clear evidence that those messages are influencing kids.”

Perhaps most troubling in terms of the APA Report’s objectivity however, is the inclusion of Susan Linn as one of the authors. Linn has a long history of advocacy against advertising to children as part of an organization called “Stop Commercial Exploitation of Children,” a group that describes itself as “a coalition of more than 20 national and regional organizations working to counter the harmful effects of marketing to children.”⁴

In an October 2000 article in *The American Prospect*, Linn argued that the “United States regulates advertising to children less than most other industrialized democracies. It is time to catch up.” Indeed, even before the APA began its work, Linn knew what the problem was: advertising was leading to childhood obesity. “Over the past ten years, coinciding with the intensification of corporate marketing to children, childhood obesity has become a major public health problem.”

What this suggests is that from the very outset the APA has not only stacked its Task Force with advocacy critics of advertising to children rather than objective scientists willing to look at all of the evidence, but has failed to disclose the bias of these Task Force members. In a time

³A. Huston, B. Watkins and D. Kunkel, *Public Policy and Children’s Television*, AM. PSYCHOLOGIST, 44: 424-433 (1989), at 431.

⁴See www.shamelessagitator.com.

when scientific journals routinely require that authors disclose competing interests, it is inappropriate that the APA has not revealed the evident bias of its Task Force. This is not to say that the fact that half of the panel comes to the process with its mind made up necessarily discredits the APA Report, but it does undermine its credibility with a public who have every right to be told that such bias is at work.

The APA obviously has every right to produce an interpretative report on children and advertising: they do not have the right to claim that their research process has been fair, that their selective findings represent the preponderance of the scientific evidence about children and advertising or that their findings necessarily entail the policy recommendations they advocate. As Jeffrey Goldstein has observed:

There is abundant research on children, television and advertising, to be sure. Unfortunately, much of it fails to meet reasonable scientific standards. Those studying children's television do not adopt the same critical posture over their methods and results as those who study other, less controversial aspects of children's behaviour. Researchers often fail to consider alternative explanations for their results and they generalize far beyond their data in an effort to support or oppose one policy or another.⁵

I.

THE USUAL STORY: THE ARGUMENT

The first published study of the effects of television advertising was an American study done in 1958 which asked 400 children aged from 6-12 to list as many television advertised products as they could in fifteen minutes. All of the children were able to remember some products and the three most often listed products were cigarettes, beer and detergents.⁶

⁵J. Goldstein, *Children and Advertising: Policy Implications of Scholarly Research*, Advertising Association, London 1997, at 9.

⁶F. Brumbaugh, cited in L. Bogart, *THE AGE OF TELEVISION* (1958), at 258.

In one sense that early study, with its behaviorist assumptions about advertising influence and manipulation, has set much of the subsequent tone and agenda in the debate about children and advertising. At the heart of this debate are a picture of children and how they develop, a series of assumptions about how children understand and react to advertising, and finally, a view, often unenunciated and almost always undefended about advertising itself, particularly its capacities to persuade and shape behavior. All of these are necessary for the case against advertising to children to be sustained. If the model, the assumptions or the view of advertising are open to question the case weakens, if not collapses. Both the model and the assumptions are necessary for the case against advertising to children to be sustained: if either the model or the assumptions are open to question the case weakens, if not collapses.

In one sense there is nothing particularly original about the APA's attack on advertising to children, for one can turn to a variety of previous works that make the same case. For instance, Smith and Sweeney in a 1984 report⁷ note that advertising prohibitionists find advertising to children objectionable because young children are unable to understand persuasive intention and are thus vulnerable; advertising leads children to unreasonable expectations and creates family tensions; advertising creates a demand for junk food, and the advertising industry is unable to manage itself through meaningful self-regulation.

The advocates of banning children's advertising present a picture of children that has a reassuringly old-fashioned and sentimental character in which children, despite the now decades long contraction of innocence and acceleration toward adolescence, if not quite adulthood, are portrayed as essentially naïve and manipulable by advertisers. Thus the APA tells us that children eight and younger "lack the cognitive skills and abilities of older children and adults, they do not comprehend commercial messages in the same way as do more mature audiences, and...are uniquely susceptible to advertising influence."⁸ It is worth noting that the first of these claims is a truism, the second is true but not necessarily decisive for this debate, and the third does not follow from the first two. Nevertheless it is the third claim that carries the argumentative weight embodied in the word 'susceptible' with its

⁷G. Smith and E. Sweeney, *Children and Television Advertising: An Overview*, London, Children's Research Unit (1984).

⁸APA Report, *supra* note 1, at 1.

implication of manipulation. The claim is a rehearsal of the Federal Trade Commission (FTC) staff research review of 1978, which argued that advertising directed to children below a certain age is unfair, that is to say deceptive, because these children cannot distinguish it from television programming or understand what it is designed to do.

The usual story is thus a combination of a certain picture of children and their abilities and a series of assumptions about the effects of advertising on children. What is claimed is that TV commercials encounter:

- 1) children who because of their limited cognitive development cannot understand the manipulative nature of the advertisement;
- 2) as a result of this encounter children form wants for the things advertised which leads them;
- 3) to demand that their parents purchase these things;
- 4) which can in turn result in parent-child conflict.⁹

The crucial part of the argument – that children’s limited cognitive abilities necessarily means that advertisements manipulate them – is generally broken down into two separate claims: 1) certain children are unable to distinguish between commercials and television programming and 2) children do not understand the intention of commercials. As the report notes “Children must acquire two key information-processing skills in order to achieve mature comprehension of advertising messages. First, they must be able to discriminate at a perceptual level commercial from noncommercial content; and second, they must be able to attribute persuasive intent to advertising and to apply a degree of skepticism to their interpretation of advertising messages consistent with that knowledge.”¹⁰ Since this claim is central to the report’s case, it is particularly odd that it is both unreferenced and unargued for. Though it is true by definition that children do not possess a “mature comprehension of advertising messages,” it does not follow from this that their comprehension leaves them open to manipulation. Indeed, to

⁹J. Goldstein, *supra* note 5, at 6-7.

¹⁰APA Report at 5.

demand that young children have a mature understanding of advertising before they can be exposed to it is to beg the question. Children might possess something less than mature comprehension and yet still understand enough of what advertising is about so as not to be open to manipulation. For instance, it is uncontroversial that young children fail to understand some aspects of advertising such as humor, product symbolism, and ambiguity. From this it does not, however, follow that this failure leaves children open to manipulation. If mature comprehension is a necessary condition for dealing with advertising, then we need to know why this is the case.

One suspects that the reason for such sloppy logic is that the authors of the APA Report, particularly the lead author Dale Kunkel, have made it so often. For instance, here is Huston, Watkins and Kunkel in a 1989 policy piece: “A convincing body of research accumulated during the 1970’s demonstrated that preschool children typically fail to distinguish program material from advertising. Children below about age eight do not understand the persuasive intent of advertising and are, therefore particularly vulnerable to its appeals.”¹¹ And the same claims are repeated in Kunkel and Roberts in a 1991 article in which the notion of persuasive intent is firmly linked to the idea of intrinsic unfairness.¹²

The degree to which children are able to recognize persuasive intent has been a dominant focus of research on children and advertising. Its importance derives from the legal argument that if young children are unaware of persuasive intent, then all commercials aimed at them are, by definition, unfair and/or misleading.¹³

And, of course, if unfair or misleading, then such commercials might legitimately be banned, as Huston, Watkins and Kunkel concluded in 1989: “The most sound policy for our nation’s children would be to ban advertising from children’s programmes altogether.”¹⁴

Underlying this picture of children and these assumptions about how children react to advertising is, of course, a view about advertising itself. The view argues that advertising affects changes in an individual’s

¹¹Huston, *supra* note 3.

¹²D. Kunkel and D. Roberts, *Young Minds and Marketplace Values: Issues in Children’s Television Advertising*, *JN. OF SOCIAL ISSUES* 47: 51-72 (1991).

¹³*Id.* at 63.

¹⁴Huston, *supra* note 3.

attitudes and these attitudes are translated into purchasing behavior, not just with individual brands but with entire product categories. The process of precisely how advertising changes attitudes is generally left unspecified, though if pressed it often parrots a version of the now 80 year old hierarchy of effects model.

According to the model – which comes in multiple versions – advertising succeeds in persuading and shaping behavior because it is able to move a consumer from reading or seeing or listening to an ad to believing it, to remembering it, and to finally acting on it. However, the model in whichever version it appears, is always more assertion than explanation in that it never explains precisely how an advertisement moves one through the supposedly succeeding effects and never provides actual examples of how an advertisement supposedly changed attitudes and how these changed attitudes were reflected in purchasing behaviors. Indeed, the model is often described as “self-evident” and based on common sense, given the little theoretical and empirical support that is provided for it. For instance, it is assumed as part of the model that causality is always one way – that changes in attitude about a product lead to its purchase rather than follow from its purchase, despite substantial evidence to the contrary. Or that attention to advertisements leads to interest in a product rather than vice versa.

But the most significant problems with this conception of advertising as the determinant of attitude and behavior are to be found in the sturdy empirical facts about how advertising is actually used and how often it “works.” For instance, of the 9-10,000 brands being advertised in a given year, the average consumer will buy only about 400.¹⁵ Moreover, the data on individual marketing campaigns suggests advertising campaigns for established brands are successful only from 20-30% of the time.¹⁶ Campaigns for new brands are successful even less often with one author noting that four out of five new brands fail in the marketplace.¹⁷ As he notes in discussing the failures of this view of advertising supposed power:

¹⁵W. Fletcher, HOW TO CAPTURE THE ADVERTISING HIGH GROUND, Century Business (1994).

¹⁶Proceedings of the Marketing Science Institute Conference Evaluating the Effects of Consumer Advertising on Market Positions Over Time: How to Tell Whether Advertising Ever Works, Report No. 88-107, 3, (1988).

¹⁷H. Murray, *Advertising's Effect on Sales - Proven or Just Assumed?*, INT'L J. OF ADVERTISING 5: 15-36 (1986).

And yet the shortcomings of the hierarchy of effect model of how advertising works were always apparent. It did not account for the uncomfortable fact that a very high proportion of new brands... fail in the market-place. And that they fail despite the fact that they are most frequently launched by major companies, who have researched both product and market; who often have experience in the market, through the marketing of complementary products; who have the marketing muscle to achieve the desired levels of distribution; who have sales force and merchandising power; and who have the financial resources to mount, and sustain, heavy advertising and promotional campaigns.

Nor did it explain the survival of small firms, with low advertising budget, in the face of the very heavy competition of the market leaders. Nor did it explain the relative stability of most markets, where market shares, and shares of total advertising, do not differ significantly from year to year. It gave no explanation of the fact that product group advertising is rarely effective; nor did it explain why social issue advertising has such little effect on the population's attitudes and behaviour. There is almost a total absence in the literature of case histories of how advertising changed attitudes, and how those changed attitudes affected sales.¹⁸

Indeed, what the case history literature demonstrates is something quite different. For instance, for the last twenty years the UK's Institute of Practitioners In Advertising has published case histories of advertising campaigns as part of the Institute's Advertising Effectiveness Award program which is designed to showcase both how advertising campaigns are created and the effectiveness of such campaigns. The case histories, published in the series *Advertising Works*,¹⁹ now include over 200 examples with several hundred more unpublished. Commenting on these case histories, Mike Waterson observed that:

Careful examination of these case histories makes it absolutely clear that the overwhelming majority of the

¹⁸*Id.* at 22-23.

¹⁹Advertising Works Case Histories, IPA, various years.

advertising campaigns submitted for this competition are firmly brand-orientated and that most of the non-brand campaigns are not for products at all, but government information, charity, recruitment and other such-like campaigns.... The overwhelming majority of evidence suggests that campaigns are not directed to changing overall market sizes and do not accidentally result in overall market changes, except in some very specialist and small product areas. It should be stressed that these are prize-winning campaigns where positive results have been obtained and... are the areas of activity where it is clear that advertising did have an impact.”²⁰

The empirical evidence then suggests that the critic’s view of branded advertising as an irrationally persuasive force with the capacity to change attitudes and behavior, whether in adults or children, is mistaken. “The main role of advertising”, as Murray observes, “is defensive. It follows, therefore, that criticism of advertising on the grounds that it is irrationally persuasive... are unsound.”²¹

II.

THE USUAL STORY: THE EVIDENCE ABOUT CHILDREN’S UNDERSTANDING OF ADVERTISING

But even allowing for the APA Report’s unargued for definition of mature comprehension and its problematic connection with manipulation, what evidence exists about children’s capacities for distinguishing commercials from television programming? According to the APA Report, most children “below the age of about four-five years exhibit low awareness of the concept of commercials.”²² It is worth noting that as children’s general sophistication, not to say their media

²⁰M. Waterson, *Advertising, Brands and Markets* in J. Luik and M. Waterson Eds. *ADVERTISING AND MARKETS* (1996), at 23.

²¹Murray, *supra* note 17, at 32.

²²APA Report at 6.

awareness, seems to be growing, the age at which they recognize advertising seems to be increasing, without scientific explanation or justification. In the APA's *Monitor on Psychology* in November 2002, Melissa Dittmann writing about the APA Task Force on Advertising and Children noted in an interview with Kunkel that "by age three or four, most children are able to differentiate an ad from a program."

But aside from the unexplained increase in the age of ad-program differentiation, this claim has a two-fold problem that relates to the report's central deficiency, namely its selective use of the research record to make unsubstantiated claims. First, the evidence adduced is more than thirty years old and represents but a fraction of the available literature,²³ and second, significant amounts of the uncited literature suggest that children understand the commercial-program distinction as early as age three. For instance, Jaglom and Gardner²⁴ argued on the basis of a number of different testing methodologies that the distinction between commercial and other television develops at about age three. In an experiment in which videos with commercials and programs were randomly stopped, Levin et al. found that children aged three to five could apply the concepts correctly about two-thirds of the time.²⁵ And in research that did not depend on children's verbal skills, reported by Kunkel himself, but curiously not cited in this report, it was found that three year olds knew the difference between commercials and programs.²⁶ Indeed, these and other findings suggest that the claims about the inability of young children to distinguish between advertisements and programming may be based on a confusion (due to reliance on verbal testing methodologies) in which children's inability to explain the difference between the two is taken for their inability to understand the difference.

Thus the APA Report's claim that the "evidence indicates that most children below four to five years of age do not consistently discriminate between program and commercial content" is true based on the two thirty

²³See E Palmer, TELEVISION AND AMERICA'S CHILDREN: A CRISIS OF NEGLECT (1988); B. Young, TELEVISION, ADVERTISING AND CHILDREN (1990).

²⁴L. Jaglom and H. Gardner Eds., *The Preschool Television Viewer as Anthropologist* in H. Kelly and H. Gardner Eds., VIEWING CHILDREN THROUGH TELEVISION (1981).

²⁵S. Levin et al., *Preschoolers' Awareness of Television Advertising*, CHILD DEV. 53: 933-937 (1982).

²⁶D. Kunkel and D. Roberts, *supra* note 12.

year-old studies referenced, but false based on the larger research record, a record that includes the work of the report's lead author, Dale Kunkel. This bias in reporting the empirical data serves an important function in the report's ideological agenda, for it allows children's advertising literacy to be systematically discounted and children to be portrayed as more vulnerable to advertising than they are, which in turn is necessary to the case for banning advertisements.

The ability of children to distinguish advertising from programs, while necessary to a "mature comprehension of advertising," is not sufficient, for mature comprehension also requires an awareness, if not some degree of understanding, of what advertising is designed to do – that is, its selling intent. Unfortunately, what constitutes such an awareness and when children come to possess it is a matter of considerable controversy. The authors of the APA Report propose a definition of awareness that involves knowing and understanding four things: "(1) the source of the message has other perspectives and other interests than those of the receiver, (2) the source intends to persuade, (3) persuasive messages are biased, and (4) biased messages demand different interpretive strategies than do unbiased messages."²⁷ Only when a child understands all of these things, as evidenced in his "processing of advertising messages," can he "be said to have developed mature comprehension of the advertising process."²⁸

While the emphasis in the APA Report's definition of advertising awareness focuses on the concept of persuasion, earlier research suggested that awareness was the ability to verbally identify the profit motive of advertising. Using this notion of mature comprehension, the researchers found that 96% of 5-6 year olds did not understand what TV commercials were about compared to 62% of 11-12 year olds.²⁹ Robertson and Rossiter, in a 1974 study, proposed an even more rigorous test of mature comprehension which included the ability to understand that commercials have external sources and intended audiences, appreciate the symbolic character of advertisement, and distinguish between the claims of the advertisement, and the reality of the product.³⁰ Such a criteria might count against the advertising maturity of many

²⁷APA Report at 6.

²⁸*Id.*

²⁹S. Ward et al., *HOW CHILDREN LEARN TO BUY* (1977).

³⁰T. Robertson and J. Rossiter, *Children and Commercial Persuasion: An Attributional Analysis*, *J. OF CONSUMER RESEARCH* 3: 58-61 (1974).

people other than children. Using this criteria, Robertson and Rossiter found that only 43% of first grade children “understood” advertisements, a figure that rose to 71% of third grade children and 94% of fifth grade children.³¹

But what of the other evidence? Surely there is more than one thirty year-old study of limited scope on the crucial issue of children’s understanding of persuasive intent? The APA Report tells us “that numerous other studies... have produced comparable findings that age is positively correlated with an understanding of commercials’ persuasive intent, with seven to eight years the approximate point that such ability typically develops.”³² This, however, is not the case, unless, of course, “numerous” has a different connotation to the APA. In addition to the Robertson and Rossiter study already discussed, the APA Report mentions exactly four others, one of which is also by Rossiter and Robertson and only one of which is more recent than nineteen years. So if we put aside the Rossiter and Robertson studies, we are left with exactly three other studies that tell us that children do not understand what advertisements are designed to do until they are eight years old. In other words an enormously significant public policy initiative is being advocated on the basis of the empirical evidence of five studies.

There is, however, considerable other evidence, unwelcome as it may be to the APA, which paints a substantially different picture of children’s understanding of persuasive intent. For example, Gaines and Esserman,³³ in studies in which children were required to do certain things or choose particular pictures, showed that children aged four to five were able to understand what television commercials were about. Again, Peterson and Lewis,³⁴ in a 1988 study showed that children as young as six could be taught to distinguish the purely informational from the persuasive aspects of advertisements. Backe and Kommer, in a 1997 German study, found that 57% of children aged six understood that

³¹*Id.*

³²APA Report at 8.

³³L. Gaines and J. Esserman, *A Quantitative Study of Young Children’s Comprehension of Television Programs and Commercials*, in J. Esserman Ed. TELEVISION ADVERTISING AND CHILDREN (1981).

³⁴L. Peterson and K. Lewis, *Preventive Intervention to Improve Children’s Discrimination of the Persuasive Tactics in Televised Advertising*, J. OF PEDIATRIC PSYCHOLOGY 13: 163-170 (1988).

advertising was designed to sell things,³⁵ a result sharply at odds with the APA Report's claim of current research showing that "fewer than half of 8 year olds comprehend advertising's persuasive intent."³⁶ Indeed, in the same study, 58.9% of six year-olds questioned the credibility of advertising at least some of the time.

Similarly, in a UK survey of children's understanding of TV advertisements, when the children were asked "What is the main reason they have advertisements on TV?," 80% answered that it because advertisers want to sell something. Less than 8% of the children did not know why advertisements appeared on TV and while there were differences in comprehension between girls and boys (with girls being more advertising literate) there was no differences in responses by age or social class.³⁷

When asked about the truthfulness of advertising, only 6% of the children thought that advertisements always tell the truth.

These findings are replicated in the extensive work on television advertising by David Buckingham with UK children. Arguing against the picture of children as incompetent or irrational and hence vulnerable to persuasion, Buckingham notes that children are able "from a very early age" to distinguish between programs and advertisements and that they are aware not only of what advertisements are designed to do, but in many instances they develop an extreme cynicism about advertising. He writes:

In our interviews, we encountered a considerable degree of skepticism - and indeed cynicism - about television advertising. The children were clearly aware of the persuasive functions of advertising, and of the potential for deception. Many described how advertisers would attempt to 'make things look better than they are'; and many reported instances in which their experiences of products fell far short of the claims made in the advertisements. Advertising in

³⁵D. Backe and S. Kommer, *Die werbung and die kinder*, MEDIEN UND DRZIEBUNG 41, 228-234 (1997).

³⁶APA Report at 8.

³⁷B. Greenberg et al., *Children's Views on Advertising* London Independent Broadcasting Authority Research Report (Feb. 1986).

general was rejected by many as merely a ‘con’ – a confidence trick.

The children were also very ready to parody or mock particular advertisements, often with great hilarity. Far from admiring the glamorous role models that allegedly populate the world of advertising, the children seemed to reject the large majority of the people featured in them as hopeless ‘wallies’ and ‘has-beens.’³⁸

Again, Donahue et al., in a study which suggested children’s understanding of commercial intent is often underestimated because researchers rely on verbal responses, found that by not relying on verbal measures, children aged three to six could understand persuasive intent.³⁹

In a 1997 study of young children’s understanding of advertising intent by Young et al.,⁴⁰ again apparently ignored by the Report, children ages four to eight years were shown a series of seven commercials in which they were told that the end was missing and were asked to complete the advertisement by choosing one of three pictures: one that showed a promotional ending, one that showed a neutral ending, and a third that showed an entertaining ending. Almost half of the four year-olds choose an entertaining ending suggesting that they did not understand the promotional purpose of advertising. But in the five to six year-old group almost 38% of the children choose a promotional ending to the advertisements, leading Young and his associates to conclude that “children understand the promotional principle in advertising as early as five to six years....”⁴¹ As Young notes this understanding of the selling function of advertising is “one of the central pillars of advertising literacy, and finding it at the beginnings of middle childhood can only

³⁸D. Buckingham, *AFTER THE DEATH OF CHILDHOOD: GROWING UP IN THE AGE OF ELECTRONIC MEDIA* (2000), at 152.

³⁹T. Donahue et al., *Do Kids Know what TV Commercials Intend?*, *J. OF ADV. RESEARCH* 20: 51-57 (1980).

⁴⁰B. Young et al., *The Young Child’s Understanding of Advocacy Communication*, in I. Quintanilla and R. Luna, Eds., *THE PROCEEDINGS OF THE 22ND ANNUAL COLLOQUIUM OF IAREP*, Vol. II, at 761-778) (an author cited approvingly elsewhere in the Report).

⁴¹*Id.*

mean that children are not as gullible and lacking in understanding as was previously thought.”⁴²

Thus the research record is much more mixed than the APA Report allows, such that it is simply not true to claim that the “evidence as a whole indicates that most children younger than about age 7-8 years do not typically recognize that the underlying goal of a commercial is to persuade the viewer.” While certain pieces of empirical research suggest that this true, certain other, just as compelling pieces, suggest that it is not true.

Realizing perhaps that their empirical case is so weak, the authors next turn to “psychological theory” to defend their claim about the inability of young children to understand persuasive intent. For instance, the APA Report claims that “given the complexities involved in appreciating the source’s perspective in the advertising process, there is a strong theoretical basis to expect that children below age seven to eight years will have difficulty recognizing the persuasive intent underlying television advertising.”⁴³ Of course the APA Report has never established that “appreciating the source’s perspective in the advertising process” is the necessary condition for understanding persuasive intent, so what we have is a criteria established by faith rather than argument. Nevertheless, if we allow this notion of understanding persuasive intent, then according to this theoretical perspective “children below the age of approximately seven to eight” have a limited cognitive development in at least two ways: first, they “tend toward egocentrism and have difficulty in taking the perspective of another person” and second, they have not yet developed a “coherent understanding of mental events such as beliefs, desires, and motives until at least age six.”⁴⁴ Egocentrism and a failure to have a “coherent” understanding of beliefs, desires and motives means that children cannot understand an advertiser’s persuasive intent.

But is this theoretical perspective in fact justified? Does cognitive psychology really hold that young children’s abilities are so limited as to make it impossible for them to understand what advertising is about? We would suggest that what is happening here is another instance of the APA Report’s ideologically-driven selectivity. Given that the empirical

⁴²*Id.*

⁴³APA Report at 7.

⁴⁴APA Report at 7.

case for young children's understanding of advertising intent is so weak, the APA Report, ignoring the fact that one study is worth a thousand theories, is attempting to make its case through a highly selective account of what we know about the mental life of children. Indeed, despite its overblown claims about the strength of the empirical evidence, the APA Report's core claim is really this theoretical picture of young children as inherently limited by their cognitive development.

What underlies this picture of cognitively limited children is a Piagetian model of childhood in which children develop in a rigid and unvarying series of "ages and stages" which ultimately brings them to a state of adult rationality. As James Anderson argues, this picture of children proceeds on the assumption that children suffer from cognitive deficits that render them "incompetent" as compared with adults.⁴⁵ Commenting on Anderson, Buckingham observes that,

... much cognitive research tends to regard the child as a 'deficit system'— as more or less 'incompetent' when compared with adults. Using normative developmental models, children at certain ages are defined as being unable to accomplish the 'proper' sequencing of visual images, to recall the 'essential' features of a narrative, or to identify correctly the 'messages' that are being beamed at them. This preoccupation with identifying the 'inadequacies' of children's understanding — as compared with adults — has led to a neglect of children's own perspectives.⁴⁶

This picture, however, is open to serious question, most significantly because it ignores the revolutionary developments in our understanding of young children's cognitive development in general and children's understanding of mind in particular that have taken place in the last ten years. As one of the leading theorists about children's mental abilities, Judy Dunn, notes, what children understand and when they understand it now "dominates developmental psychology."⁴⁷ It would be curious if the professional psychologists who authored the APA Report were unaware

⁴⁵J. Anderson, *Research on Children and Television: A Critique*, J. OF BROADCASTING 25: 395-400 (1981).

⁴⁶D. Buckingham, *supra* note 38, at 14.

⁴⁷J. Dunn, *Making Sense of the Social World: Mindreading, Emotion, and Relationships* in P. Zelazo et al., Eds., *DEVELOPING THEORIES OF INTENTION: SOCIAL UNDERSTANDING AND SELF-CONTROL* (1999), at 229.

of these developments in child psychology, so it is extremely difficult to understand why they are silent about them. In making their theoretical case that children's cognitive abilities below the age of eight do not allow them to understand persuasion, beliefs, desires, motives and intentions, the authors rely on psychological literature almost exclusively from the 1970s.⁴⁸ They cite six authors who support the view of the child as conceptually limited, four of whose studies were published in the 1970s, one in the 1980s and one in 1990. With the possible exception of the 1990 study, all of the studies pre-date the significant developments in understanding children's cognitive abilities that have occurred in the last ten years.

What has emerged from these developments is a quite different picture of the capacities of young children, one that is sharply at odds with the APA Report's 30year-old theories that such children cannot take the "perspective of another person" and do not have an understanding of "beliefs, desires, and motives."

As Dunn notes in speaking about children under the age of four:

We now have a picture of what children understand of their own and others' mental states in the preschool years; of their growing ability to distinguish thoughts and things and to reflect on and play with hypothetical events; and of their propensity to talk about what they and other people want, feel, and see.⁴⁹

Then crucially, "as they reach four years, their burgeoning interest in talking about thinking, knowing and remembering" is clearly documented, Dunn tells us, by Bartsch and Wellman,⁵⁰ two authors whose other work is cited by the APA Report, but not their recent work on child development. So the APA Report's 1970's theory that young children do not understand beliefs, desires and motives is contradicted by recent empirical studies that show that these children do understand hypothetical events, speak of both what they and others want, see and feel, as well as talk about thinking and knowing.

⁴⁸APA Report at 7.

⁴⁹Dunn, *supra* note 47, at 229.

⁵⁰K. Bartsch and H. Wellman, CHILDREN TALK ABOUT THE MIND (1995).

Three sorts of interactions occur in children during their third and fourth years that provide clear evidence of the richness and sophistication of their cognitive lives, according to Dunn. First, children display “a very early and rapidly growing curiosity about and interest in inner states.” She writes:

Over the third year, our studies showed, their questions about other people’s feelings and wants, and about why they act they way they do, increase markedly in frequency.... Frequently their questions about others are focused on hurt or upset: ‘Are you all right?’ ‘Why are you crying?’ and ‘What’s that frighten you, Mum?’⁵¹

Second, Dunn notes four studies that look at young children’s abilities in what psychologists call joint pretend, where children jointly structure a pretend world with another child. Such pretend playing requires the young child not only to understand and develop a play line but to understand the other child’s thoughts and intentions so as to jointly shape the pretend world. As Dunn observes “The general point of importance is that these data show us that children begin to entertain multiple hypothetical realities and ‘decouple’ reality from fantasy not as solitary cognitive enterprises but through negotiating social interactions in which these cognitive states are shared....”⁵²

Dunn’s research is replicated in the work of psychologist Stephen Kline’s study of children at play. Commenting on a study involving 30 boys aged 3-6 Kline notes:

When one child says to another ‘let’s play’ it is an invitation to engage in social communication with each other by using toys. But a very complex process of meaning-making underlies even the simplest acts of playfulness. A wealth of social concepts is employed regularly in playing with action toys - because play implies the active application of rules, roles, narrative

⁵¹Dunn, *supra* note 47, at 231.

⁵²Dunn, *supra* note 47, at 234.

structure that the player brings to the game to make play.”⁵³

Far from being without concepts or beliefs, these young children understand rules, roles and narratives.

A third interaction occurring during the first four years of children’s lives is their telling of stories. Dunn describes both her own work and that of others as revealing young children’s sophisticated “linguistic skills – referring to inner states, sequencing events temporally and causally – when they reported events involving fear, anger or distress.”⁵⁴ Perhaps the most compelling displays of children’s linguistic and cognitive skills is found, according to Dunn, when children engage in negotiations involving disputes with others:

A child’s ability to construct her own compelling and believable account of what happened may be called on to a greater degree in the context of a dispute than in other settings.... Our data also showed that children have multiple opportunities to learn how best to tell what happened from listening to the exchanges between older sibling and parents....⁵⁵

Dunn’s claims are in fact backed by an impressive array of empirical evidence from such distinguished children’s researchers as Meltzoff, Gopnik and Repacholi⁵⁶ who note that “preschoolers understand a great deal about perceiving, wanting, and intending...”⁵⁷ According to Meltzoff et al.:

- 1) by “18 months of age children have already adopted a fundamental aspect of folk psychology: Persons are understood within a framework involving goals and intentions.”

⁵³S. Kline, *Toys as Media: The Role of Toy Design, Promotional TV and Mother’s Reinforcement in the Young Males Acquisition of Pro-social Play Scripts for Rescue Hero Action Toys* Simon Fraser University, Media-Lab accessed 16.3.2004, at 11.

⁵⁴Dunn, *supra* note 40, at 234.

⁵⁵*Id.* at 235.

⁵⁶A.Meltzoff et al., *Toddlers’ Understanding of Intentions, Desires, and Emotions: Explorations of the Dark Ages* in P. Zelazo et al., Eds., *DEVELOPING THEORIES OF INTENTION: SOCIAL UNDERSTANDING AND SELF-CONTROL* (1999).

⁵⁷*Id.* at 17.

- 2) by 36 months children “can reason backwards from an emotional reaction to what the adult was striving to do.”
- 3) by age three there is considerable evidence that children “understand that our desires and intentions may differ from and even be in conflict with, the desires of those around us.”⁵⁸

Thus, far from the APA Report’s exclusively egocentric beings who are unable to understand and take the perspective of others and cannot understand mental events, young children early on (as early as age three according to Howard Gardner⁵⁹) abandon egocentrism. Indeed, as Bartsch and Wellman observe very young children initially explain what people do in terms of feelings and desires, but it is through their social interactions that they develop the concept of belief in order to understand other’s actions.⁶⁰ In short, the claim that children below the age of eight are limited in cognitive development to such a degree that they cannot assume the perspective of another person and do not understand mental events such as desires, intentions, motives and beliefs is simply not supported by a reading of the post-1990 literature in the psychology of childhood development.

But leaving aside the question of the young child’s general cognitive abilities, there is a very specific area of children’s cognitive capacities which the APA Report hardly treats, and yet is crucial for a child’s understanding of advertising. This is the idea and action of persuasion and lying. This is a curious omission, since the APA Report assumes, both explicitly and implicitly, that advertising is based on persuasion and persuasion at the very least is founded on bias. So rather than a discussion about what psychological theory tells us about the general cognitive abilities of young children in general, what we need, on the APA Report’s own terms, is a much more precise account of the specific abilities of young children with respect to those skills necessary to understand advertising, that is, persuasion and deception.

⁵⁸*Id.* at 36 ff.

⁵⁹H. Gardner, *FRAMES OF MIND: THE THEORY OF MULTIPLE INTELLIGENCES* (1983), at 21.

⁶⁰*Supra* note 50.

Contrary to the APA Report's silence, there is a considerable literature about young children's abilities in persuasion and deceit. This should not be surprising since, as Eleanor Siegel, writing in the *APS Observer* notes: "Nothing in life is more pervasive than persuasion. Nearly every social interaction between humans... has a strong element of persuasion."⁶¹

One of the first studies of children's use of deception was the 1928 *Studies in Deceit* by Hartshorne and May⁶² who note that pre-school children are already practiced in deceit and that all children, given the right circumstances, will lie and cheat. Building on the early work of Hartshorne and May, contemporary psychologists have developed a rich literature of studies on young children's understanding of deceit and persuasion.⁶³ For instance, Newton, in a series of studies that looked at children in natural settings, observed that children as young as three use the same types of deception as four year olds, though less frequently. These children used deception most often "in situations of conflict when the child is in an emotionally charged state of opposition to parental control."⁶⁴ The young children had clearly mastered the concept of deception, using it most frequently to manipulate what other family members believed. Newton also noted that the young children were quite subtle in their use of deceit as examples of "false boasting, and bravado in the face of painful punishment demonstrated that even three and four year-olds engage in impression management."⁶⁵

Summarizing the cognitive abilities that young children must have in order to lie successfully, Marie Vasek writes that they must "have

⁶¹E. Siegel, *APS OBSERVER* May, 1991, at 8.

⁶²H. Hartshorne and M. May, *STUDIES IN DECEIT* (1928).

⁶³P. La Freniere, *The Ontogeny of Tactical Deception in Humans in MACHIAVELLIAN INTELLIGENCE* R. Byrne and A. Whiten, Eds. (1988); M. Vasek, *Lying as a Skill: The Development of Deception in Children* in *DECEPTION: PERSPECTIVES ON HUMAN AND NONHUMAN DECEIT*, R. Mitchell and N. Thompson Eds. (1986); M. Chandler et al., *Small-scale Deceit: Deception as a Marker of Two, Three and Four-Year-Olds' Theories of Mind*, *CHILD DEVELOPMENT* 60: 1263-1277; P. Newton, *Preschool Prevarication: An Investigation of the Cognitive Prerequisites for Deception* Unpublished doctoral dissertation University of Portsmouth, Portsmouth England (1994); B. Sodian, *The Development of Deception in Children*, *BRITISH J. OF DEVELOPMENTAL PSYCHOLOGY* 9 173-188 (1991); R. Burton, *HONESTY AND DISHONESTY IN MORAL DEVELOPMENT AND BEHAVIOR*, T. Lickona Ed. (1976).

⁶⁴Newton, *supra* note 56.

⁶⁵*Id.*

knowledge of another's knowledge and beliefs, recognize the information required to sway the beliefs of the listener, and communicate such that this information, rather than information which suggests one's intent to deceive is passed on."⁶⁶ Vasek notes that in children six and older this capacity for manipulation involving the ability to assume another's perspective and understand that intentionality is developed in a sophisticated enough form to "allow them to manipulate their opponents in complex games... and to understand convoluted deceptions in narrative.... Children of the same age can also modify their speech to suit the informational needs of their listeners."⁶⁷ Apart then for all of the other evidence about young children's cognitive capacities, their ability to deceive suggests, contrary to the APA Report, that they understand much about motivation, intention, beliefs and desires.

Having put aside the APA Report's flawed view of young children and replaced it with a contemporary understanding of young children's abilities, we can now return to the central question of whether young children are able to understand the persuasive intent of advertising. We would suggest that the answer to this question is to be found by asking what are the minimum cognitive capacities necessary for children to understand persuasive intent. This is different from the test proposed by the APA Report, which suggests that children require a "mature comprehension of advertising messages"⁶⁸ and which argues that the "younger child's limited ability to understand and manipulate complex, abstract information about relationships between message sources and receivers"⁶⁹ means that they cannot understand persuasive intent. Such sophistic question-begging means that young children by definition cannot understand advertising, since the bar of understanding is pitched unreasonably high. There is no need for a straight-faced inquiry since if young children require mature comprehension to understand persuasive intent then by definition they do not possess it. But if the question is put in a different way such that it becomes whether young children have a comprehension, a set of capacities sufficient to understand the basic intention of advertisements, then we are asking something meaningful.

⁶⁶M. Vasek, *Lying as a Skill: The Development of Deception in Children* in DECEPTION: PERSPECTIVES ON HUMAN AND NONHUMAN DECEIT, R. Mitchell and N Thompson Eds. (1986).

⁶⁷*Id.* at 287.

⁶⁸APA Report at 5.

⁶⁹APA Report at 7.

And what might those capacities look like? They would be, at minimum, the capacities necessary to engage in persuasion and deception themselves. In other words, if young children are able to engage in actions designed to persuade, and we have seen that they are, then they are able to recognize and grasp in an essential sense what advertising is about. In effect, Marie Vasek's inventory of the understandings and skills necessary for children to lie – knowledge of another's knowledge and beliefs, knowing the information required to convince the listener and communicating this persuasive information while masking one's intent to deceive – can also serve as one definition, unflattering of course, but one of which the APA would approve, of advertising itself. This is not, of course, to claim that young children's understanding of advertising is complete: it is only to claim that it is sufficient to allow them to grasp its basic intent.

For some this view of young children as cognitively sophisticated and practiced in persuasion will be unattractive as it runs against a long-held and deeply ingrained perception of them as innocent and unworldly. As the historian Ludmilla Jordanova notes, children traditionally were seen as “tender, impressionable, vulnerable, pure, deserving of parental protection, and hence all too easily corrupted by the market-place.”⁷⁰ In a society that rightly cherishes and perhaps too often indulges its children there is a tendency to dismiss the idea of children as understanding and practicing deceit as at once too harsh and too clinical, as if it described children from some other place and time. But the scientific view about the mental and moral lives of young children finds its counterpart in both our popular culture and our experience of the lives of our own children. The idea of a long and protected childhood in which children are sheltered if not screened from the “world” has increasingly become a polite fiction. Young children, for better or worse, increasingly interact with the adult world. As David Buckingham observed in *After the Death of Childhood: Growing Up in the Age of Electronic Media*, “Over the past twenty or thirty years, the status of childhood and our assumptions about it have become more and more unstable. The distinctions between children and other categories – ‘youth’ or ‘adults’ – have become ever more difficult to sustain.”⁷¹

⁷⁰L. Jordanova, *Children in History: Concepts of Nature and Society* in G. Scarre, Ed., *CHILDREN, PARENTS AND POLITICS* (1989).

⁷¹Buckingham, *supra* note 38, at 4.

Writing about the contraction of childhood in her 2000 book *Ready or Not: What Happens When We Treat Children as Small Adults*, Kay Hymowitz notes that:

Few Americans are unaware of the profound transformation over the last thirty years in the way children look and act.... Infants now have ‘lapware’ computers with education programs and work out at baby gyms. It’s not uncommon to hear about soccer teams for three-year-olds and tackle football teams complete with shoulder pads and helmets for seven-year-olds. Indeed, by elementary school many children are on the fast track.... No information is off-limits for children today. Third graders recite jokes told by David Letterman the previous night.... Nor is the media their only source: kindergartners might be studying the Holocaust or AIDS in school.⁷²

In a similar vein, Don Tapscott in his 1998 book *Growing Up Digital: The Rise of the Net Generation* observes that one of the consequences of the expansion of the digital media is that children develop much earlier a more skeptical sense of the world which leads them to frequently question much of what they are told. As users of the Web, young children are confronted with much that is inaccurate or deceptive and they must learn early how to discern the fake from the authentic. As one media expert told Tapscott “Children today have the luxury of understanding that everything they see or hear is not necessarily true. They see a photograph and know it could be totally fabricated. Kids today are developing a higher level of self-confidence—an ability to look critically at what their parents would accept as a given.”⁷³

All of this points to a deep and central curiosity about the APA Report – while children’s movement toward adulthood is being accelerated in every other aspect of their lives, with advertising it is, like the APA Report’s data, trapped in the 1970s. Regardless of how knowledgeable young children might become about everything else, they

⁷²K. Hymowitz, *READY OR NOT: WHAT HAPPENS WHEN WE TREAT CHILDREN AS SMALL ADULTS* (2000), at 1-2.

⁷³D. Tapscott, *GROWING UP DIGITAL: THE RISE OF THE NET GENERATION* (1998), at 100.

can never hope to understand what advertising, one of the most persuasive aspects of their lives, is about until at least age eight.

The APA Report's claim that young children lack the cognitive capacities to understand what advertisements are about is open then to refutation on three accounts: 1) it is inconsistent with the full range of empirical evidence about children's understanding of persuasive intent; 2) it is contradicted by much of the recent work in cognitive psychology, itself empirically founded, and particularly by that research which has looked at children's abilities to persuade and deceive, and 3) it is refuted by the amply documented popular accounts of the contracted or hurried childhood that are a staple of current cultural studies. None of this is meant to suggest that young children are discriminating or sophisticated consumers: neither are many adults. The relevant question is not whether children are mature consumers or little adults but whether they possess the skills necessary to understand advertising's purpose. What this view does suggest, however, is that the sentimentalized notion of young children as so naïve and manipulable as to be infants until age eight is supported neither by the full range of psychological research and theory nor by the picture of young children in popular culture. Stripped of its shaky claims of empirical and theoretical support this picture of vulnerable young children emerges for what it is: an ideological as opposed to a scientific construct whose only purpose is to make advertising to children morally suspect.

There is, finally, one other point about the claim that young children are vulnerable to advertising because they do not understand its persuasive intent that is worth noting because of its central role in the argument against advertising. The logic of the prohibitionist case is that young children's failure to understand the purpose of advertising makes them vulnerable to it. But the research on this issue assumes vulnerability rather than establishes it because it is designed to assess understanding rather than vulnerability. The research tells us that young children do not understand what commercials are about and from this it deduces that they are vulnerable. But actual empirical evidence of vulnerability is never adduced. If the claim "failure to understand the purpose of advertising equals vulnerability" is true, then it would be a fairly straightforward matter to design an experiment in which two groups of children are shown advertisements with one group being told what the advertisement was "about" and the other group not, and observing whether there were differences in their reactions. As Jeffrey Goldstein

notes “It would be a simple matter to see whether children who are told the purpose of a commercial are less affected by it than children not so informed. To my knowledge, no study of this sort has been done.”⁷⁴ Interestingly, there is one study, as Goldstein observes, in which a group of young children who did *not* understand what advertisements were about were found to be less influenced by them.⁷⁵

III.

THE USUAL STORY: THE EVIDENCE ABOUT THE EFFECTS OF ADVERTISING ON CHILDREN – TOBACCO, ALCOHOL AND FOOD

The third component of the case for banning advertising to children is that such advertising, because of its manipulative character, leads children to want the things that are advertised and to either demand them of their parents or purchase them themselves. The APA Report concentrates on three examples in which this manipulative effect is particularly obvious, tobacco, alcohol and what it terms “unhealthy eating habits” involving candies, sugared cereal, desserts and fast foods. This choice is odd given the Report’s policy recommendation of banning advertising to children under eight, since neither tobacco nor alcohol products can be legally purchased or consumed by children under eight, nor are these products advertised to children. But what is even stranger, given the enormous number of studies – experimental, epidemiological and econometric – on the effects of advertising these products, is how little evidence the APA Report offers to back its conclusions. For example, with respect to tobacco and alcohol the authors tell us that “the consensus of both short-term and experimental research and longitudinal studies is that advertising and marketing contribute to youth smoking and alcohol consumption,”⁷⁶ a consensus which is supported by only two references. This, however, is not the case. While it may be true that a

⁷⁴J. Goldstein, *supra* note 5, at 14.

⁷⁵T. Clarke, *Situational Factors Affecting Preschoolers’ Responses to Advertising*, J. OF THE ACADEMY OF MARKETING SCIENCE (Fall 1984), at 25-40.

⁷⁶APA Report at 13.

majority of anti-tobacco and alcohol activists believe that there is consensus linking tobacco and alcohol advertising with children smoking and drinking, the academic literature reveals no such consensus. Indeed, it suggests 1) that there is no established causal connection between tobacco and alcohol advertising and the initiation of child smoking and drinking and 2) that the most likely causes of children and young people smoking are to be found in such factors as peer and parental influences, risk preferences and proclivities and resilience.

A. Tobacco Advertising and Young People

One of the most important research studies on the effects of advertising on the consumption of consumer goods is the 1982 paper by Brian Sturgess of the University of Nottingham, *Dispelling the Myth: The Effects of Total Advertising Expenditure on Aggregate Consumption*.⁷⁷ Replying to critics of advertising, like the authors of the Report, who claim that advertising manipulates demand for consumer goods, Sturgess examined total advertising expenditure in the UK from 1969-1980 and found that the advertising expenditures did not alter aggregate consumer behavior.

Sturgess' findings have been replicated most recently by Hsu et al.,⁷⁸ who examined the relationship between advertising and sales in the U.S. from 1948-1995. Like Sturgess, Hsu et al. did not find "any long-term relationship binding advertising, aggregate sales and disposable income."⁷⁹

Moreover, work which has focused exclusively on tobacco advertising has found similar results. For example in a review of econometric studies of advertising and cigarette demand in the United States and the United Kingdom, Duffy notes that with respect to the U.S. "The balance of evidence suggests that aggregate cigarette advertising has had little or no influence upon total cigarette consumption in the United States in recent decades." As for the UK, the evidence is similar

⁷⁷B. Sturgess, *Dispelling the Myth: The Effects of Total Advertising Expenditure on Aggregate Consumption*, INT'L J. OF ADVERTISING 1: 201-212 (1982).

⁷⁸Hsu et al., *Does Advertising Stimulate Sales or Mainly Deliver Signals? A Multivariate Analysis*, INT'L. J OF ADVERTISING 21: 175-195 (2002).

⁷⁹*Id.*

in that “Modern analysis finds no expansionary effect of advertising on total cigarette sales in the United Kingdom.”⁸⁰

A more recent meta-analysis of tobacco advertising elasticities derived from econometric studies in both the United States and other countries,⁸¹ finds that “any spillover effect of cigarette advertising on aggregate consumption was limited in duration and negligible in magnitude. The small size of the coefficients for the pre-1964 period reveals that the primary effect of advertising is on brand shares, and the ability of advertising to expand the overall market is very limited and probably non-existent.”⁸² This compares with the work of Andrews and Franke⁸³ in a previous meta-analysis which found that average cigarette advertising elasticity in the United States was 0.142 until 1970, and that mean advertising elasticity after 1970 was minus 0.007 – estimates which are essentially no different than zero.

Despite this work, the critics of advertising, like the author of the APA Report, continue to maintain that regardless of what these studies might show, it is “logical” to conclude that if advertising works at the market share level for each brand, then it must also increase the size of the overall market. As Cabellero has shown, this is, of course, nothing more than the fallacy of composition.⁸⁴ Writing about such flawed reasoning, John Calfee notes that “An obvious example is political advertising. Each candidate believes advertising is necessary, and each one does it in the hope of increasing his own vote. Total advertising expenditures accordingly increase year after year.... but there is no reason to think this causes more people to vote.”⁸⁵

Those who would claim that advertising causes consumers, whether children or adults, to purchase certain products, must provide compelling

⁸⁰M. Duffy, *Econometric Studies of Advertising, Advertising Restriction and Cigarette Demand: A Survey*, INT’L J. OF ADVERTISING 15 (1996), at 33, 37.

⁸¹J. Nelson, *Cigarette Advertising Regulation: A Meta-Analysis*, INT’L REV. OF LAW AND ECONOMICS (Forthcoming).

⁸²*Id.* at 18.

⁸³R. Andrews and G. Franke, *The determinants of cigarette consumption: a meta analysis*, JN. OF PUBLIC POLICY AND MARKETING 10: 81-100 (1991).

⁸⁴Cabellero, *A Fallacy of Composition*, AMERICAN ECONOMIC REVIEW 82: 1279-1292 (1992).

⁸⁵J. Calfee, FEAR OF PERSUASION: A NEW PERSPECTIVE ON ADVERTISING AND REGULATION (1997), at 84.

evidence that Sturgess' research, and indeed that of many other studies such as Hsu which have come to similar conclusions about the "effects" of advertising, are conceptually and empirically incorrect.

The major academic studies of youth smoking initiation, most underwritten by various national governments, do not support the claim that exposure to tobacco advertising is a significant predictor of youth smoking. Six studies over the last decade and half are particularly illustrative of this.

The Goddard Report,⁸⁶ a survey-based study by the Office of Population Censuses and Surveys on behalf of the UK Department of Health, identifies a number of characteristics that are more likely to be found among those adolescents who subsequently begin to smoke than among those not starting to smoke. These characteristics include: being a girl; having brothers or sisters who smoke; having parents who smoke; living with a single parent; not intending to stay in full-time education after the age of sixteen; and having relatively less negative views about smoking.

What is particularly interesting is that all of the foregoing characteristics are associated independently with smoking initiation, all but one has no connection with tobacco advertising and there is no single explanation as to why young people begin to smoke. As Goddard notes: "the onset of smoking in young people is a complex process – no simple combination of a small number of factors can be put together to form a good explanation of why some children start to smoke at this age, while others do not..."⁸⁷

The work of Conrad et al. echoes the conclusions of the Goddard Report.⁸⁸ These authors confined their analysis of youth smoking initiation to longitudinal as opposed to cross-sectional studies about the factors influencing youth smoking that were published from 1980 onwards. The age of the adolescents in the studies ranged from 10-17 with the median age being 12-13. The studies ranged from four months to two years and were conducted in the U.S., Europe and Australia.

⁸⁶THE GODDARD REPORT, London, HMSO (1990).

⁸⁷The Goddard Report at 46.

⁸⁸K. Conrad et al., *Why Children Start Smoking Cigarettes: Predictors of Onset*, B. J. OF ADDICTION 87: 1711-1723 (1992).

Conrad and her colleagues grouped their analysis of the “process of becoming a smoker” around five different categories of smoking predictors: 1) socio-demographic; 2) social bonding; 3) social learning; 4) intrapersonal/personal/self-image; and 5) knowledge, attitudes, and behaviour predictors. They then discussed the findings by examining the “proportion of results that were consistent with theoretical expectations...”, that is, how well each of the five predicted whether an adolescent would become a smoker.

- 1) Socio-demographic predictors such as socio-economic status, age, and gender were consistent with theoretical expectations 76% of the time, with the strongest predictor of becoming a smoker being socio-economic status and age.
- 2) Social bonding predictors, including family and peer bonding and school influences, were consistent in predicting uptake of smoking 71% of the time.
- 3) Social learning predictors – family smoking, family approval of smoking, other adult influences (including tobacco advertisements and tobacco sponsorship of sporting events), peer influences, and the availability of tobacco – were consistent in 72% of the cases. Only two studies in the authors’ review examined exposure to advertising and tobacco sponsorship as factors in smoking onset and both of these factors were found to be non-predictive of smoking initiation.
- 4) Intra-personal, personal, self-image predictors – which included tolerance of deviance, independence, rebelliousness, risk-taking, alienation and locus of control – were consistent in 77% of the cases. What is particularly striking is that the most reliable predictor in this grouping was rebelliousness/risk-taking. Indeed, the authors found this predictor to be one of the most reliable indicators of smoking initiation in the entire literature.
- 5) Knowledge, attitude and behavior predictors – including knowledge and beliefs about physical consequences of smoking, addiction, expected utility, approval of cigarette advertisements, alcohol and substance use – were predictive in 75% of the cases. Approval of cigarette advertisements was predictive in one study and non-predictive in another.

Two things about this exhaustive study of the research literature on youth smoking are particularly relevant to the question of the relationship between advertising and the initiation of youth smoking. First, very few serious students of smoking initiation, as opposed to advertising ban proponents, consider tobacco advertisements to be even a theoretically interesting predictor of smoking onset among children. Second, one of the strongest predictors of smoking initiation among children was rebelliousness and risk-taking.

Conrad et al.'s analysis of the longitudinal research on youth smoking initiation and advertising has been confirmed in other research that has taken predictor variables and combined them into single studies. For instance, Smith and Stutts⁸⁹ combined the major predictor variables of youth smoking into a single study that found that all variables related to cigarette advertising and antismoking information ranked low as predictors of smoking. As the authors noted: "This suggests that exposure to cigarette advertising, paying attention to cigarette ads, being familiar with cigarette characters and brands, and exposure to antismoking information are not good predictors of smoking level."⁹⁰

A similar skepticism about the role of advertising in children starting to smoke is to be found in another UK report authored by Clive Smee for the Department of Health.⁹¹ Dismissing the many studies that suggest that recognition of tobacco advertising serves as a proxy for the effect of advertising, Smee is careful to note that there is a crucial difference between young people recognizing tobacco advertisements and such recognition leading to smoking. "Awareness of advertising is at most a necessary condition for coming under its influence. It is not reliable evidence that advertising increases consumption."⁹² Further, Smee correctly notes that the direction of causality with respect to advertising and smoking uptake is just as plausibly interpreted as running in the opposite direction, namely adolescents "disposed to smoke are more likely to react positively to tobacco advertising and show greater awareness of it."⁹³

⁸⁹K. Smith and M. Stutts, *Factors that Influence Adolescents to Smoke*, J. OF CONSUMER AFFAIRS 33: 321-357 (1999).

⁹⁰*Id.*

⁹¹C. Smee, *Effect of Tobacco Advertising on Tobacco Consumption: A Discussion Document Reviewing the Evidence*, HMSO (1992).

⁹²*Id.* at 128.

⁹³*Id.*

Echoing other studies, Smee observes that two of the most important factors for smoking initiation are the smoking behavior of siblings and parents. Finally, and most importantly, Smee himself carried out a detailed statistical analysis of whether tobacco advertising is “likely to influence the smoking prevalence among teenagers.” A separate model was developed for UK adolescent men and women, he reports, and “in neither model was advertising a significant factor.”⁹⁴

In 1998 two UK researchers, Barbara Lloyd and Kevin Lucas, published a ground breaking work on youth smoking.⁹⁵ Their research, commissioned by the UK Department of Health and based on a decade of actual interviews with adolescents, argued that the traditional anti-smoking interventions, including school-based education programs, needed to be reevaluated as they failed to connect with the actual causes of youth smoking. Lloyd and Lucas argued that most of the research on adolescent smoking has been undertaken from a medically-orientated and middle-aged perspective as opposed to the perspective of adolescent smokers.

Based on two empirical studies of adolescent smokers, one in Sussex and the other in London, Lloyd and Lucas note that the primary reasons behind adolescent smoking are to be found in the structures and functioning of families, school cultures, the need for stress and mood control, and the fact that smoking provides considerable physical pleasure. Adolescents who lived with their biological parents and in well-functioning family units were far less likely to smoke than those in single-parent families or stepfamilies. The studies also found that peer influences and specific school cultures with their varying rates of academic success also predicted smoking uptake. Finally, smoking was widely used by both boy and girl adolescents to cope with both family- and school-related stress.

The fifth study of interest to the question of youth smoking initiation is the work of Richard Jessor and his colleagues in the United States.⁹⁶

⁹⁴*Id.* at 152.

⁹⁵B. Lloyd and K. Lucas, SMOKING IN ADOLESCENCE; IMAGES AND IDENTITIES (1998).

⁹⁶R. Jessor and S. Jessor, PROBLEM BEHAVIOUR AND PSYCHOSOCIAL DEVELOPMENT: A LONGITUDINAL STUDY OF YOUTH (1977); R. Jessor et al., *Protective Factors in Adolescent Problem Behaviour: Moderator Effects and Developmental Change*, DEVELOP’L PSYCHOLOGY 31: 923-933 (1995).

Jessor looked at a range of problem behaviors, including alcohol and smoking, delinquency and sexual precocity, in order to identify the factors that served to protect adolescents from such risks. Seven protective factors were identified as being crucial: positive orientation towards school; positive orientation towards health; intolerant attitudes towards deviance; positive relations toward adults; strong perceived controls; friends who engage in conventional behaviors; and involvement in pro-social activities (e.g., voluntary work).

Contrasting with these seven protective factors were six risk factors that increased the likelihood for behaviors like smoking and drinking – low expectations for success; low self-esteem; general sense of hopelessness; friends who engage in problem behavior; a greater orientation towards friends than towards parents; and poor school achievement. Jessor found that problem behavior like smoking and drinking showed a statistically inverse relationship to protective factors. Protective factors moderated the risks associated with problem behavior.

Jessor's work has subsequently been incorporated into much of the current work on youth smoking and drinking centered around the idea of resilience, which looks at the ways in which adolescents who live in environments with a high risk for smoking and drinking can avoid these behaviors. What is important about the work of Jessor and those researchers focused on resilience is that like the work by Lloyd and Lucas it does not identify tobacco or alcohol advertising as a statistically significant determinant of smoking initiation.

A final approach to the problem of youth smoking is, like the work of Jessor, focused on adolescent problem behaviors in general, and explains smoking within the context of this general account of risk factors for problem behavior by young people. Known as the "Determinants of Health" approach, it argues that the health of populations and individuals is based on four factors: living and working conditions (the social and economic environment, income, social status, education, the community, social support networks); the physical environment including the human constructed environment; personal capacities, especially for coping and personal health behaviors; and the health services. Adolescent problem behaviors, like smoking and drinking, according to this approach, are best understood as the result of such factors as income, education, work, social status and individual capacities such as self-esteem and coping.

According to the research literature⁹⁷ factors from two of the four determinants are closely linked to adolescent smoking: income, social status, social networks, education and coping skills. For example, there is a consistently strong negative relationship between socioeconomic status and tobacco use. As Fralick and Hyndman note: “Young people from lower socioeconomic backgrounds are generally more likely to smoke than their more economically privileged peers.”⁹⁸

Similarly, social networks and support groups are central to youth smoking. Studies by van Roosmalen and McDaniel⁹⁹ found that friends played a significant role, particularly for female adolescents, in the decision to smoke. Anderson reports that the social environment and the influence of social networks is the single most important determinant of smoking initiation in young people.¹⁰⁰

Just as crucially, there is abundant evidence that healthy family and peer influences act protectively against smoking initiation. U.S. studies, for instance, have found that teenagers were three times as likely to not smoke if no one in their home smoked. Again, a number of studies have shown that that youth smoking is strongly linked to poor academic achievement, dissatisfaction with school and an intention to leave school. Research has also shown that academic achievement can be protective against smoking. Finally, there is a wealth of research which links smoking initiation to high stress, low self-esteem, and poor coping skills. Some studies have found, for instance, that male adolescent smokers are more lonely, shy and unsociable than nonsmokers. The Determinants of Health approach to youth smoking prevention has become increasingly popular. In 1998 the Government of Canada, through its National Forum on Health, identified several policies based on the determinants approach to prevent youth smoking. These included:

- Fostering positive, healthy home environments;
- Decreasing socioeconomic disparities and inequities among youth;

⁹⁷P. Fralick and B Hyndman, *Youth Substance Abuse and the Determinants of Health* in Determinants of Health: Children and Youth National Forum on Health Editions MultiMondes (1998).

⁹⁸*Id.* at 318.

⁹⁹E. van Roosmalen and S. McDaniel, *Peer Group Influence as a Factor in Smoking Behavior of Adolescents*, *ADOLESCENCE* 24: 801-806 (1989).

¹⁰⁰K. Anderson, *Young People and Alcohol, Drugs, and Tobacco*, WHO 1995.

- Keeping youth in school;
- Addressing literacy concerns;
- Ensuring access to healthy sport and recreational activities for youth.¹⁰¹

Again it will be noted first, how specifically these policies connect with what the Determinants approach identifies as the major risk factors for adolescent smoking and second, the policy menu does not include tobacco advertising as a risk factor for adolescent smoking initiation.

Most recently the Determinants of Health approach has been adopted by WHO as the basis for its health promotion activities, including tobacco control.

Despite these accounts of why young people begin to smoke, the critics of advertising are still willing to claim that it is advertising which is the major causal factor in initiating youth smoking. This claim is, for the most part, founded on four recent studies of the connection between advertising and youth smoking by Biener and Siegel,¹⁰² Pierce et al.,¹⁰³ W.Choi et al.,¹⁰⁴ and Sargent et al.¹⁰⁵ Each of these studies works from the premise that adolescents who remember or like tobacco advertisements or have a tobacco promotional item are more likely to become smokers than those adolescents who do not. Remembering tobacco advertisements or owning a tobacco promotional item is thus a proxy for the influence of tobacco advertising, which in turn precipitates smoking. Rejecting the argument which we advanced earlier that since young people are quite sophisticated about the nature and purposes of advertising, they are unlikely to be easily manipulated by it, these critics see advertising as being powerful enough to cause smoking.

There are good reasons to reject this picture about the causal powers of advertising in general, and tobacco advertising in particular. As Mica

¹⁰¹Fralick, *supra* note 97, at 349.

¹⁰²M. Siegel and L. Biener, *The Impact of Anti-smoking Media Campaigns on Progression to Established Smoking*, *AJPH* 90: 380-386. (2000).

¹⁰³J. Pierce et al., *Tobacco Industry Promotion of Cigarettes and Adolescent Smoking*, *JAMA* 279: 511-515 (1998).

¹⁰⁴W. Choi et al., *Progression to Established Smoking: The Influence of Tobacco Marketing*, *AM. J. OF PREVENTIVE MEDICINE* 22: 228-233 (2002).

¹⁰⁵J. Sargent et al., *Exposure to Cigarette Promotions and Smoking Uptake in Adolescents*, *TOBACCO CONTROL* 9: 163-168 (2000).

and Orson Nava noted in looking at young people and advertising "... as emerges clearly from our research, no other age group is considered as discriminating, cynical and resistant to the 'hard sell'... What emerges quite clearly from this picture then is that young people consume commercials independently of the product which is being marketed."¹⁰⁶ Comparing the advertising literacy of today's adolescents with those of previous generations, the Navas argue that contemporary young people are armed with a "skepticism and powers of analysis" which are "a great deal more developed than those of older generations."

Despite this claim that adolescents "consume commercials independently of the product which is being marketed, tobacco advertising critics like Pierce argue that adolescents who own a tobacco promotion item, are willing to use such an item, or can name a favorite tobacco ad are more likely to progress toward smoking than those who do not. Biener and Siegel claim that using a tobacco promotional item is connected with actual adolescent smoking, not simply progress toward smoking. Sargent alleges a similar connection in that "Over time, the likelihood of smoking uptake is increased when an adolescent acquires a CPI [cigarette promotional item] or becomes willing to use it...." Choi claims that there is a causal link between recall of ads and willingness to use promotional items and adolescent experimenters moving to regular smoking status.

Each of these studies, however, suffers from three significant flaws. First, numerous studies have examined dozens, if not hundreds of risk factors for smoking uptake by young people. In order to determine whether a particular risk factor causes smoking, it is necessary to control for the other risk factors, otherwise it is impossible to know which risk factor is responsible. None of these four studies control for even most of the factors that have been identified as being associated with youth smoking, which means that they cannot claim to demonstrate that advertising causes adolescent smoking.

Second, there is no evidence in any of the studies that possession of a tobacco promotional item or recall of a tobacco advertisement serves as a legitimate measure of actual exposure to tobacco advertising. In other words, the studies offer no reason to conclude that the subjects were

¹⁰⁶M. Nava and O. Nava, *Discriminating or Duped: Young People as Consumers of Advertising*, ART MAGAZINE OF CULTURAL STUDIES 1:15-21 (1990).

really exposed to and affected by tobacco advertising which is the alleged causal factor.

Third, and most importantly, the studies demonstrate a truism, namely that adolescents who are interested in smoking are more likely to smoke, not that adolescents who see tobacco advertisements are more likely to begin smoking. This is because the studies fail to realize that the direction of causality may in fact be quite different: adolescents may be attracted to tobacco promotional items and tobacco ads because they are interested in smoking, rather than promotional items and ads leading them to smoke. Causality may run from smoking to the ads rather than the other way. Moreover, as the Navas note, they might be attracted to the ad simply because of the ad, without being attracted to the product.

Each of these studies goes wrong, then, because it fails to properly distinguish between *correlations* and *causes*. All of them claim to have discovered a causal connection between tobacco advertising and smoking when in fact they have discovered nothing more than an association, a correlation. This sort of error is found not only in smoking initiation studies, but in other scientific research where the relationships being studied are not carefully specified to allow for the direction of causality to be correctly determined. For instance, in May, 1999 *Nature* published a study about babies under two who slept with nightlights in their rooms.¹⁰⁷ It found that these children were more likely to become myopic later in life, though the investigators could provide no reason for this possible causal relationship. The following year a second study was published which showed that nearsighted parents were more likely to use nightlights in their babies' rooms than normal sighted parents.¹⁰⁸ Their children were more likely to be myopic because of their genes, not because nightlights "cause" myopia. There was a correlation between nightlights and myopia but not a causal connection.

This confusion between correlation and causation persists even in the most recent study on the link between tobacco advertising and the initiation of tobacco use by a team of researchers from the Tobacco Consortium, Center for Child Health Research of the American Academy

¹⁰⁷Quinn et al., *Myopia and Ambient Lighting at Night* 399: 113-4. (1999).

¹⁰⁸Zadnik et al., *Myopia and Ambient Night-time Lighting* 404: 143-44 (2000).

of Pediatrics.¹⁰⁹ Whereas much of the previous research in this area, even by advocates, has attempted to imply causation even while speaking only of associations, this study abandons that pretense and makes the direct claim that the scientific literature “provides strong and consistent scientific evidence that tobacco promotion causes children to smoke.”¹¹⁰ While the authors clearly believe that such a claim is necessary to sustain a restriction of tobacco advertising under the Supreme Court’s *Central Hudson* test, there is nothing in their study which demonstrates such causality.

For one thing, the study appears to suggest that the only authors who disagree with the “scientific conclusion” that tobacco advertising causes youth smoking, are those who have been paid by the tobacco industry. But as we have seen, this is hardly the case, as there is considerable skepticism about the role of tobacco advertising in youth smoking throughout the youth smoking research community.

Consider for example the findings of the Smee Report, commissioned by the UK Department of Health, hardly a pro-tobacco organization, findings which substantially contradict DiFranza et al. claims. Smee conducted his own statistical analysis of whether tobacco advertising is likely to “influence the smoking prevalence among teenagers” and found that advertising was not a statistically significant factor.¹¹¹ Moreover, Smee directly contradicts the assertion of DiFranza et al. that recognition and awareness of tobacco advertising causes youth smoking by noting that “Awareness of advertising is at most a necessary condition for coming under its influence. It is not reliable evidence that advertising increases consumption.”¹¹² Again, DiFranza et al. dismisses as a “tobacco industry explanation” the reverse causality argument that adolescents who are smokers or inclined to smoke might be more aware of or more positive about tobacco advertisements. But Smee finds the argument entirely implausible, noting that the connection between awareness of advertising and smoking can be legitimately explained by the fact that adolescents “disposed to smoke are more likely to react positively to tobacco advertising and show greater awareness of it.”¹¹³

¹⁰⁹J. DiFranza et al., *Tobacco Promotion and the Initiation of Tobacco Use: Assessing the Evidence for Causality*, PEDIATRICS 117: 1237-1248 (2006).

¹¹⁰*Id.* at 1245.

¹¹¹Smee, *supra* note 91, at 152.

¹¹²*Id.* at 128.

¹¹³*Id.*

In short, Smee's study, carried out by a government health department, contradicts DiFranza et al. in three crucial respects. First, it produces statistical evidence that advertising is not causally related to adolescent smoking. Second, it notes the limitations of DiFranza's simplistic assertion that exposure to, awareness of, and approval of tobacco advertising are anything close to valid demonstrations of the claim that advertising causes youth smoking. Indeed, by emphasizing the difference, apparently unnoticed by DiFranza et al, between necessary and sufficient conditions, it shows just how far the allegedly scientific evidence falls short in establishing how exposure to or awareness of advertising causes attitudes and indeed causes behavior. Third, it completely undermines the assumption of DiFranza et al. that causality between advertising and smoking uptake is uni-directional by noting that it can just as plausibly be construed as running in the opposite direction.

DiFranza et al, however, has other equally serious problems with its claim to have established a causal connection between tobacco advertising and youth smoking. For instance, DiFranza et al. produce no evidence other than prospective and cross-sectional studies, studies that by their very nature cannot produce causal results. Indeed, it is highly curious that the authors even presume to speak of causality when their study base, by definition, fails to include any evidence of a causal nature. Indeed, the authors move between talking about associations and causes as if these were the same thing.

Furthermore, the authors imply and at times state,¹¹⁴ that the associations between tobacco advertising and tobacco use remain even after all potentially confounding factors have been adjusted for. This, however, is simply not true. No study adduced by DiFranza et al., indeed no study ever produced on the alleged connection between tobacco advertising and tobacco initiation and use has controlled for more than a small handful of the more than a hundred risk factors identified for adolescent tobacco use. This means that none of these studies can legitimately speak of tobacco advertising as a scientifically established cause of tobacco use.

Finally, DiFranza et al. argue both that there is no other plausible explanation other than causality which can account for the evidence and that it is impossible, given the almost universal exposure

¹¹⁴DiFranza et al., *supra* note 109, at 1243.

of young people to tobacco promotion, to construct a properly controlled study that would allow for a real determination of causality. Both of these assertions are open to refutation. If it is true that there is no other explanation for smoking other than advertising, than one would not expect to find smoking and certainly not significant amounts of smoking in societies that were unexposed to tobacco advertising. However, until the end of communism, tobacco advertising was unknown in both the Soviet Union and Eastern Europe, yet those societies had some of the highest rates of smoking prevalence in the world. On DiFranza et al.'s terms, there is no alternative causal mechanism that would explain this fact. Yet, if we return to the studies on youth smoking previously examined, there are ample models to explain why young people and adults in a society without advertising become smokers. In short, both the existence of smoking in societies without advertising, and the alternative accounts of why young people smoke previously discussed, provide cogent explanations of the causes of youth smoking without invoking advertising.

Moreover, even though it is difficult to find in the United States young people who are unexposed to tobacco advertising, it is not impossible to find such young people in other societies who have banned tobacco promotions for decades. Given the claims about a causal connection between tobacco advertising and youth smoking, one would expect to find that these countries with young people unexposed to tobacco advertising had lower rates of youth smoking, particularly after decades without tobacco advertising. However, this is not the case. For instance, in Finland where tobacco advertisements were banned in 1977, the rate of smoking amongst adolescents was at the same level as before the 1977 ban.¹¹⁵

Nor is this an anomaly. Norway, which was the world's first country to ban tobacco advertising in 1974, had in 1995 a female adolescent smoking prevalence of 44%, roughly what it was before the advertising ban.¹¹⁶ As the Chief of the Tobacco Products Unit at Health Canada, Neil Collishaw noted, despite the fact that Norway had by the mid-1980's "the longest experience with an effective prohibition of tobacco

¹¹⁵M. Rimpela et al., *Changes in health habits of young people in Finland in 1977-1987*, Department of Public Health, University of Helsinki Report for the Government of Finland.

¹¹⁶P. Kraft and T. Svendsen, *Tobacco Use Among Young Adults in Norway, 1973-95 Has the Decrease Leveled Out?*, TOBACCO CONTROL 6: 27-32 (1997).

advertising... neither... data on changes in smoking prevalence among youth nor changes in overall tobacco consumption in that country offers compelling evidence that banning tobacco advertising reduces either smoking by youth or tobacco consumption overall....”¹¹⁷

B. Alcohol Advertising and Young People

There is an impressive body of econometric studies which have examined the relationship between alcohol consumption and such independent variables as price of alcohol, consumer income, other prices, availability, and advertising.

The major econometric study of U.S. alcohol consumption and its relationship to advertising is Franke and Wilcox, who looked at beer, wine and spirit consumption from 1964-1984.¹¹⁸ They found no statistically significant relationship between beer advertising and consumption and a small statistically significant relationship between wine and spirit consumption and advertising. The authors concluded however that advertising did not significantly affect total consumption during the period under review.

A more recent analysis by Tegene, which used data for 21 years (1954-1975), found that advertising had no statistically significant affect on wine, beer or spirit consumption during the period.¹¹⁹ Another econometric study by Nelson and Moran provided additional support for this lack of a causal relationship between alcohol advertising and consumption.¹²⁰

In the UK a number of studies have been conducted beginning with McGuiness, who looked at advertising, income price, and the number of

¹¹⁷N. Collishaw, *Commentary on Application to Regulate Tobacco Products Under the Hazardous Products Act by Physicians for a Smoke-Free Society*, Health Canada, May 12m, (1986), at 2.

¹¹⁸C. Franke and C. Wilcox, *Alcoholic Beverage Advertising and Consumption in the United States*, J. OF ADVERTISING 16: 22-30 (1987).

¹¹⁹A. Tegene, *The Kalman Filter Approach for Testing Structural Change in the Demand for Alcoholic Beverages in the United States*, APPLIED ECONOMICS 22: 1407-1416 (1990).

¹²⁰J. Nelson and J. Moran, *Advertising and U.S. Alcoholic Beverage Demand: System-wide Estimates*, APPLIED ECONOMICS 27: 1225-1236 (1995).

places where drinks could be purchased as independent variables. He found a statistically significant relationship for spirits but no affect for wine and beer.¹²¹ Hagan and Waterson used real expenditure on alcohol rather than alcohol consumption as the dependent variable with price, consumer income and advertising as independent variables. They found no statistically significant affect of advertising on alcohol sales from 1961-1980.¹²²

Waterson also notes a series of changes in the UK drinks market that show the lack of a connection between advertising and consumption. For instance, from 1978-1987, the total ad spend for beer advertising increased by over 80% while beer consumption fell by 14%. Between 1978 and 1987 advertising for spirits increased by 70% while sales fell by 4%. During the same period advertising fell in the wine market by 26% while sales increased by 65%.¹²³

Finally, in a series of studies beginning in 1981 and continuing to 2003, Duffy looked at the affects of advertising on the UK drink market, concluding that the “responsiveness of...demand with respect to advertising becomes insignificantly different from zero.”¹²⁴

The major econometric study of advertising and alcohol consumption in Europe is Calfee and Scheraga, which examined four European countries – France, Germany, the Netherlands and the UK. For comparative purposes Sweden, which has banned alcohol advertising since 1979, was included. Advertising expenditures, alcohol price, and per capita disposable income were independent variables during the period from 1971-1989. Interestingly, the authors found that

¹²¹T. McGuinness, *An Econometric Analysis of Total Demand for Alcoholic Beverages in the UK, 1956-1975*, J. OF INDUSTRIAL ECONOMICS 29: 85-109 (1980); T. McGuinness, *The Demand for Beer, Spirits and Wine in the UK, 1956-1979* in M. Grant et al., Eds., *ECONOMICS AND ALCOHOLS* (1983), at 238-242.

¹²²L. Hagan and M. Waterson, *The Impact of Advertising on the United Kingdom Alcoholic Drink Market*, Advertising Association (1983).

¹²³M. Waterson, *Advertising and Alcohol: An Analysis of the Evidence Relating to Two Major Aspects of the Debate*, INT’L. J. OF ADVERTISING 8: 111-132 (1989).

¹²⁴M. Duffy, *The Influence of Prices, Consumer Incomes and Advertising Upon the Demand for Alcoholic Drink in the United Kingdom: An Econometric Study*, BRT. J. ON ALCOHOL AND ALCOHOLISM 16: 200-208 (1981); M. Duffy, *Advertising and Food, Drink and Tobacco Consumption in the United Kingdom: A Dynamic Demand System*, AGRICULTURAL ECONOMICS 28: 51-70 (2003).

consumption in all but one of the countries peaked around 1980, while advertising continued to increase. While price and consumer income were found to have a statistically significant impact in all of the countries, advertising was not found to have any influence on consumption. More importantly, the authors discovered that strong social forces (changing attitudes toward drinking) contributed to a declining consumption that advertising was powerless to prevent.¹²⁵

These results of these individual econometric studies of the relationship between alcohol advertising and consumption confirm the findings of two reviews of the empirical evidence, one by Smart in 1988¹²⁶ and the other by Fisher in 1993.¹²⁷ Smart concludes that “The evidence indicates that advertising bans do not reduce alcohol sales, total advertising expenditures have no reliable correlation with sales of alcoholic beverages and ...experimental studies typically show no effect of advertising on actual consumption.”¹²⁸

The econometric studies about the relationship between alcohol advertising and consumption are also validated in survey and experimental studies that have been done specifically with young people. Though these studies are often based on self-reports of consumption and report attitudes as opposed to the actual purchase and consumption behaviors captured in econometric studies, and while they do not control for most of the factors influencing youth drinking, they can still provide some useful information about the connections between alcohol advertising and consumption by young people.

Kohn and Smart, for instance, exposed groups of male university students to sports programs, with some programs having no beer advertisements, some four and some nine advertisements. The students were able to purchase beer during the programs. While there were differences in beer consumption during the program, there were no statistically significant differences in beer consumption among the

¹²⁵J. Calfee and C. Scheraga, *The Influence of Advertising on Alcohol Consumption: A Literature Review and An Econometric Analysis of Four European Nations*, INT’L J. ADVERTISING 13: 287-310 (1994).

¹²⁶R. Smart, *Does Alcohol Advertising Affect Overall Consumption? A Review of Empirical Studies*, J. OF STUDIES ON ALCOHOL 49: 314-323 (1988).

¹²⁷J. Fisher, *ADVERTISING, ALCOHOL CONSUMPTION AND ABUSE: A WORLD SURVEY* (1993).

¹²⁸Smart, *supra* note 126.

groups by the end of the program.¹²⁹ Lipsitz et al. showed groups of fifth and eight-grade students three sorts of commercials – beer commercials, soft-drink commercials and beer commercials along with anti-drinking commercials. The students were then asked about their drinking expectancies. The authors found no statistically significant effects from the advertisements on drinking expectations.¹³⁰

Strickland administered a self-report questionnaire to a group of seventh, ninth, and eleventh grade students in St. Louis in an effort to examine the relationship between advertising exposure and alcohol consumption. After analyzing the data, Strickland concluded that “reducing the amount of advertising for alcoholic beverages is likely to have a negligible impact on the level of consumption among teenagers. Given the presumed vulnerability of youth to mass media influences, and especially for those who hold certain susceptible orientation, the findings fail to sustain the argument that alcohol advertising is a primary factor in drinking behaviour.”¹³¹

Strickland noted that even the small media effects found in the study pointed to the fact that parental influences both in socializing children with respect to the media and in consumption decisions were far more crucial in the drinking decision.

Strickland’s emphasis on the role of risk factors other than advertising for adolescent drinking echoes what the research literature has found about adolescent smoking. For example, in a recent study of the risk factors for adolescent alcohol initiation, Donovan found that the most consistent risk factors predicting adolescent alcohol use were parental and peer approval, and adolescents’ own prior involvement in delinquent behavior.¹³² Indeed, there is considerable evidence which suggests that young people consume alcohol because of three factors: social norms deriving from the behavior and pressure of their peers; individual benefits – drinking is used to reduce tension/stress, it is fun

¹²⁹P. Kohn and R. Smart, *The Impact of Television Advertising on Alcohol Consumption: An Experiment*, J. OF STUDIES ON ALCOHOL 45: 295-301 (1984).

¹³⁰A. Lipsitz et al., *Another Round for the Brewers; Television Ads and Children’s Alcohol Expectancies*, J. OF APPLIED SOCIAL PSYCHOLOGY 23: 439 (1993).

¹³¹D. Strickland, *Alcohol Advertising: Orientations and Influence*, J. OF ADVERTISING 1: 307-319 (1982), at 318.

¹³²J. Donovan, *Adolescent Alcohol Initiation: A Review of Psychosocial Risk Factors*, J. OF ADOLESCENT HEALTH 35: 529-547 (2004).

and provides an experience from the adult world; and for the benefits it provides in social situations – to increase enjoyment and enhance confidence in social situations. Williams, in a National Institute on Alcohol Abuse and Alcoholism monograph on the effects of the mass media on alcohol use, comes to a similar conclusion about family and peer influences. He writes:

Researchers also need to recognize that to a certain extent they may be ‘swatting at gnats while being swallowed by a tiger’ by spending so much time focusing on advertising while ignoring factors such as family and peer pressure, which account for the greatest impact on consumption, particularly among adolescents.¹³³

And Williams’s perspective is to some extent echoed in the recent study by the Institute of Medicine on *Reducing Underage Drinking: A Collective Responsibility*, which noted that “a clear causal link between advertising and youth consumption has not been established...”¹³⁴

Unfortunately, Williams’ advice appears to have made little impact as the manufacturing of studies linking advertising exposure to drinking continues. For instance, in a widely publicized study published in January 2006, Snyder et al.¹³⁵ examined the relationship between alcohol advertising expenditures and exposure to alcohol advertising and adolescent drinking. The authors conclude that “individuals who saw one more advertisement on average than other individuals had 1% more alcoholic drinks per month.”¹³⁶

Like most of these studies, however, the research is fundamentally flawed. First, the authors failed to control for hardly any of the risk factors for adolescent drinking. Second, and more crucially, the authors failed to control for perhaps the two most important risk factors for

¹³³ J. Williams, *Advertising Principles, Practices, and Outcomes; Applicability to Alcohol Marketing* in S. Martin, Ed., *THE EFFECTS OF THE MASS MEDIA ON THE USE AND ABUSE OF ALCOHOL* U.S. Department of Health and Human Services (1995), at 205.

¹³⁴R. Bonnie and M. O’Connell Eds., *Reducing Underage Drinking: A Collective Responsibility*, National Academies Press (2004).

¹³⁵L. Snyder et al., *Effects of Alcohol Advertising Exposure on Drinking Among Youth*, *ARCH. PEDIATR. ADOLESCENT MED.* 160: 18-24 (2006).

¹³⁶*Id.* at 21.

adolescent drinking, parental and peer influence. Third, the authors rely on self-reports about the amount of alcohol advertising seen by their subjects. Since there often is a significant difference between one's memories of an event and the event itself, the study cannot guarantee the accuracy of its most crucial measurement, a measurement integral to its conclusion. Fourth, the results barely reach statistical significance since the confidence intervals on market-level advertising expenditures per capita are 1.002-1.056 and mean advertising exposure intervals are 1.001 to 1.021. RR's below three are considered to represent a weak association, while those between one and two are considered very weak. These represent a risk not appreciably different from one (which represents no increased risk) and provide no basis for a scientific as opposed to an ideological conclusion that "alcohol advertising contributes to increased drinking among youth."

Synder et al.'s claims are also brought into question by a recent study by Nelson,¹³⁷ which looked at the question of whether alcohol advertisements in magazines, on which the industry spent \$ 394 million in 2003, target underage youth. Nelson looked at 3,675 alcohol ads in 28 magazines from 2001-2003 and analyzed them according to demographics including percentage of young readers, percentage of adult male readers, circulation, and content category. In 14 of the 28 magazines the youth readership is equal to or greater than 20%.¹³⁸ Nelson found that despite the claims that the alcohol industry targets youth people in its magazine advertising, a careful regression analysis of the data does not support these claims. Given the size of the young adult population (ages 21-34), the fact that they drink more and do not yet have established brand loyalties the industry targets young adults as opposed to adolescents (ages 12-20). As he notes: "The percent of youth readers is not significant in any of the regressions, regardless of the model or specification. The results fail to support the allegation that beer and spirits advertisers are targeting young readers. Beer advertisers favor magazines with more young adults, male readers, and larger adult audiences, but not adolescents. Spirit producers favor magazines with

¹³⁷J. Nelson, *Alcohol Advertising in Magazines: Do Beer, Wine, and Spirits Ads Target Youth?*, CONTEMPORARY ECONOMIC POLICY 24: 357-369 (2006).

¹³⁸The Center on Alcohol Marketing and Youth – CAMY – objects to ads in media outlets that reach audiences with more than 15% underage youth. Underage youth constitute about 15% of the population.

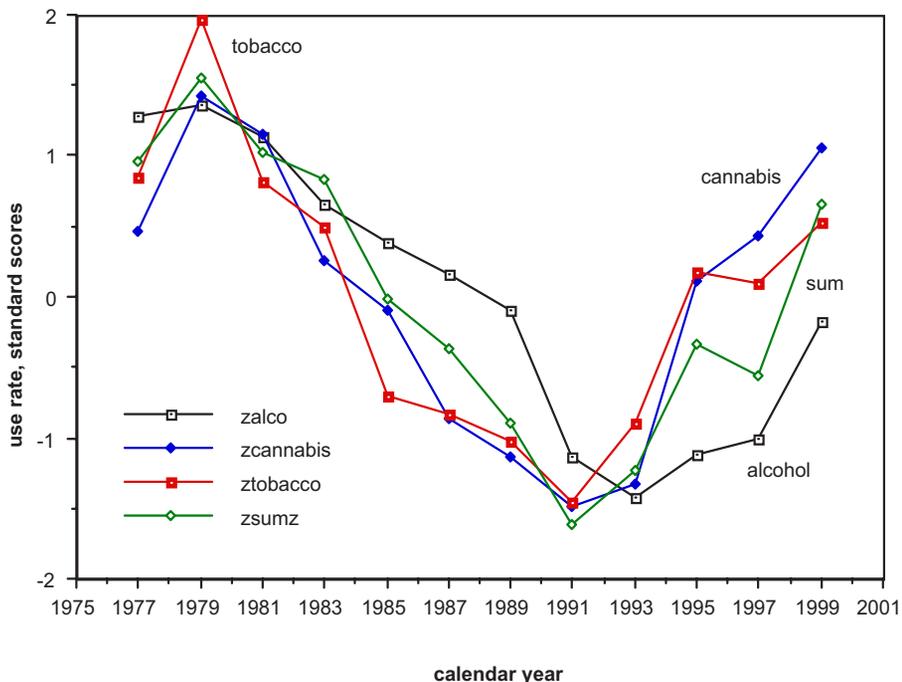
more young adults, male readers and larger adult audiences, but not adolescents.”¹³⁹

Counting against the weak and non-causal findings like Synder’s and confirming the econometric, experimental, and survey results previously discussed is a recent analysis of student drug use by Professor Gerald Wilde of Queens University. Wilde took the data compiled by the Centre for Addiction and Mental Health in Toronto, Canada in their Drug Use Among Ontario Students, a survey of the drug use of between 2800 and 4700 students in grades seven, nine, eleven, and thirteen in odd-numbered years between 1977 and 1999. The survey asked students to indicate the extent to which they used each of sixteen different substances.

What Wilde found, reflected in the diagram below, was a remarkably similar usage pattern across all drugs. From a high in 1977 all drug use declined in tandem until 1991 and then increased through 1999. This similarity can be determined through reliability analysis, factor analysis, multiple regression and analysis of cross-correlations with time lags. According to Wilde’s analysis one can predict the usage of any single drug from the use rates of all other drugs with complete precision. In effect, the changes in the use of all drugs are caused by some other risk factor.

¹³⁹Nelson, *supra* note 137 at 368.

Figure j+2: Rates of use of alcohol, tobacco, cannabis and aggregate drugs ("sum") by Ontario highschool students, 1977-1999, expressed in standard scores



These findings have a considerable significance for the alcohol advertising debate with respect to young people. Of the sixteen substances surveyed over the two decades, only tobacco and alcohol were advertised. Yet usage patterns for tobacco and alcohol were the same as for unadvertised drugs. Clearly advertising could have been a causal factor in tobacco and alcohol use only if it was a factor in the use of all other drugs, which it was not. Whatever the causes of the usage rates for alcohol, they were not caused by advertising.

C. Food Advertising and Children's Advertising, Food Choices, Diets and Obesity

The most extensive current attack against advertising to children is centered on food advertising. The issue was examined not only in the APA report, but also in a recently published report by the Institute of Medicine, as well as in the UK by the Hastings Review for the Food Standards Agency and the Office of Communications' ("Ofcom")¹⁴⁰ Report *Childhood Obesity – Food Advertising in Context*.¹⁴¹ At first glance it might be thought that the objections to food advertising directed to children might be different from those brought against tobacco and alcohol. Tobacco and alcohol, after all, are adult products which, in most societies, are considered inappropriate for children. Whatever one thought about promoting these products to adults, most people would argue that advertising them to children was wrong. But while food is something consumed equally by children and adults, the argument against food advertising to children is very similar to the arguments about tobacco and alcohol, namely that certain foods are just like tobacco and alcohol in that they cause harm and thus advertisements for them should be prohibited. In the case of foods the argument is that certain foods and certain diets lead both to overweight and obesity and to certain ailments like cardiovascular disease, diabetes, and cancer in children.

The case then against food advertising to children is composed of at least four claims. First, children are too fat. Second, children's obesity, is caused both by eating too much (excessive caloric intake) and eating the wrong foods – "unhealthy foods." There is some confusion in this argument about whether unhealthy foods are unhealthy because they lead to obesity and through obesity to other diseases, or because they directly cause other diseases. Third, children's poor consumption choices are to a significant extent a function of the advertising of the food industry. Fourth, by restricting or banning food advertising, childhood overweight and obesity can be reduced.

¹⁴⁰Ofcom is the UK regulator of the communication industry with responsibilities for television, radio, telecommunications and wireless communications.

¹⁴¹J. McGinnis et al., Eds., *Food Marketing to Children and Youth: Threat or Opportunity?* Institute of Medicine, Washington, D.C. (2006); G. Hastings et al., *Review of Research on the Effects of Food Promotion to Children*, Centre for Social Marketing, University of Strathclyde, Glasgow (2003); Ofcom, *Childhood Obesity- Food Advertising in Context*, London (2004).

The causal connection between obesity and overweight in children and the food industry is thus allegedly three-fold: it is a product of the sorts of food produced by the industry; it is a product of the ways in which these foods cause obesity and disease; and it is a product of the food advertising by the industry. For the story to work, all of these causal connections must in fact hold true. The foods produced and marketed by the food industry must be shown to cause obesity and disease and the consumption of these foods must be shown to be caused by the food industry's advertising. As we shall see, there is an enormous amount of sloppy reasoning in this story about the food environment in that causal connections are often assumed rather than argued for, let alone established. In many instances arguments are advanced in which the causal thread is entirely absent.

The story also hinges on a fourth causal connection, namely between advertising restrictions or bans and a decline in overweight and obesity, but an examination of this connection lies outside the scope of this paper. We wish to argue that this story about the supposed causal connections between particularly children's diets, weight and food advertising, repeatedly told by the obesity crusaders, the media, and a number of "academic" reviews is at the least unproven and at the most false in each of its claims.

The claim that children are too fat is plagued by the fact that the evidence fails to support the claim of an epidemic of obesity in the United States or the UK.

For instance, according to an analysis from the U.S. National Center for Health Statistics,¹⁴² the weight of the majority of Americans has only increased by six to seven pounds over the last decade except for the already obese. The average weight of the U.S. population has increased from seven to ten pounds over the decade and most Americans have weights that vary within a ten pound range in any given year. According to Hedley the prevalence of overweight and obesity in U.S. children showed no statistically significant increase from 1999-2002, and there has been no statistically significant increase in adult weights during the

¹⁴²D. Freedman et al., *Trends and Correlates of Class 3 Obesity in the United States from 1990 through 2000*, JAMA 288: 1758-61 (2002).

same period.¹⁴³ As Campos et al. noted recently in the *International Journal of Epidemiology*:

...what we have seen, in the US, is a relatively modest rightward skewing of average weight on the distribution curve, with people of lower weights gaining little or no weight, and the majority of people weighing ~3-5kg more than they did a generation ago.... While there has been significant weight gain among the heaviest individuals the vast majority of people in the 'overweight' and 'obese' categories are now at weight levels that are only slightly higher than those they or their predecessors were maintaining a generation ago. In other words we are seeing subtle shifts rather than an alarming epidemic.'¹⁴⁴

As the authors note, the 'obesity epidemic' in the United States translates into about ten extra calories a day.¹⁴⁵

A similar lack of compelling evidence about too much fat is found in the UK. The Health Survey for England, published in December, 2004, found that the average weight of boys (aged 3-15) in 2003 was 31.9 kg compared with 32 kg in 1995. Girls' average weights were 32.4 kg in 2003 as compared with 32 kg in 1995. Comparing BMI results between 1995 and 2003, the increase in average BMI's for boys was 0.5kg and 0.6 for girls, a statistically insignificant increase.¹⁴⁶

So we are left with a truly puzzling claim, during the time in which food advertising is supposed to have made people fat, the numbers of fat children have not increased significantly.

Nor is there a stronger evidentiary basis for the claim that the reason for increases in overweight is caused by eating too much. For example, in a 2004 study of weight gain and consumption in the United States, the

¹⁴³A. Hedley et al., *Prevalence of Overweight and Obesity among U.S. Children, Adolescents, and Adults, 1999-2003*, JAMA 291: 2847-50 (2004).

¹⁴⁴P. Campos et al., *The Epidemiology of Overweight and Obesity: Public Health Crisis or Moral Panic?*, INT'L. J. OF EPID. (2006).

¹⁴⁵*Id.* at 1.

¹⁴⁶*Health Survey for England 2003*, Department of Health (Dec. 14, 2004).

National Bureau of Economic Research¹⁴⁷ noted that while there was a secular increase in weight there were “only modest gains in caloric consumption.” Indeed, as Harnack et al. observed in a 2000 analysis¹⁴⁸ “Energy intakes per person were 7% lower in 1994 than in 1977-78” Again as Salbe and Ravussin¹⁴⁹ observed in 2000 “.... there is considerable evidence showing that fat intake has actually been decreasing as the prevalence of obesity has been rising...” Moreover, the alleged connection between excessive eating and obesity is further undermined by studies which show that the caloric intake among the obese is not more, and indeed may be less than the non-obese.

Writing in the *Journal of Clinical Endocrinology and Metabolism*, Slyper¹⁵⁰ observed that “It is often assumed that the increase in pediatric obesity has occurred because of an increase in caloric intake. However, the data do not substantiate this.” Kimm et al., in a recent article in the *Lancet*¹⁵¹ noted that “The composite findings from NGHS so far indicate that the drastic decline in habitual activity during adolescence might be a major factor in the doubling of the rate of obesity development in the United States in the past decades, since no concomitant increase in energy intake was apparent.” The same finding about no increase in calories is found in a study of energy and fat intakes of children by Troiana et al. in the *American Journal of Clinical Nutrition*¹⁵² which noted, “The lack of evidence of a general increase in energy intake among youths despite an increase in the prevalence of overweight.” And lest this lack of connection between supposedly too much fat and overeating be thought to be confined only to the United States, Jebb, writing in the *British Medical Bulletin* observed that “... there has been

¹⁴⁷D. Lakdawalla and T. Phillipson, *The Growth of Obesity and Technological Change: A Theoretical and Empirical Examination*, NBER (May 2004) at 8946.

¹⁴⁸L. Harnack et al., *Temporal Trends in Energy Intake in the United States: An Ecologic Perspective*, AM. J. OF CLINICAL NUTRITION 71:1478-84. (2000).

¹⁴⁹A. Salbe and E. Ravussin, *The Determinants of Obesity*, in C. Bouchard. Ed., PHYSICAL ACTIVITY AND OBESITY CHAMPAIGN (2000).

¹⁵⁰A. Slyper, *The Pediatric Obesity Epidemic: Causes and Controversies*, J. OF CLINICAL ENDOCRINOLOGY AND METABOLISM 89: 2540-47 (2004).

¹⁵¹S. Kimm et al., *Relation Between the Changes in Physical Activity and Body Mass Index During Adolescence: A Multicentre Longitudinal Study*, LANCET 366: 301-7 (2005).

¹⁵²R. Troiano, *Energy and Fat Intakes of Children and Adolescents in the United States: Data from the National Health and Nutrition, Examination Surveys*, AM. J. OF CLINICAL NUTRITION 72: 1343S-53 (2000).

no relationship between either total energy intake or fat consumption in the prevalence of clinical obesity over the last 60 years...”¹⁵³

So here is another highly curious claim, during the time in which food advertising was making people fat, the amount of food being consumed did not significantly increase.

What then of the claim that it is not too much eating, but the wrong kind of eating, namely, eating “unhealthy” or “bad foods” that is responsible for overweight and obesity? The authors of the *Consensus Statement on Childhood Obesity* argue that there is a causal connection between childhood obesity and the consumption of such unhealthy foods as fizzy drinks and fast foods:

In terms of dietary content, there is an inverse relationship between calcium intake and adiposity. The consumption of high carbohydrate soft drinks is a major contributing factor to high calorie counts.... Additionally, fast food consumption now accounts for 10% of food intake in children in US schools, compared to 2% in the 1970's. Children who frequently eat fast food consume more total energy, more energy per gram of food, more total fat, more total carbohydrate, more added sugars, less fiber, less milk... and fewer fruits and vegetables than children who eat fast food infrequently. Those who are overweight are particularly vulnerable to adverse health effects of consuming fast foods.¹⁵⁴

The implicit assumption of course is that these sorts of unhealthy foods are causally connected with certain diseases, either directly or through producing obesity. But despite these confident, sweeping and it should be noted, thinly evidenced assertions, when one begins to examine the scientific basis for the claim that certain foods are unhealthy in that they cause either obesity or disease, it becomes apparent that the notion of unhealthy or bad foods as a scientific claim is one that is open to question. Contrary to what the obesity crusaders say, science does not

¹⁵³S. Jebb, *Aetiology of Obesity*, BRITISH MEDICAL BULLETIN 53: 264-85 (1997).

¹⁵⁴P. Speiser et al., *Consensus Statement Childhood Obesity*, OBESITY J. OF CLINICAL ENDOCRINOLOGY AND METABOLISM 90 (2004), at 17.

speak with one voice about what constitutes healthy and unhealthy, good or bad, foods.

First, the claims supporting the characterization of foods as unhealthy are for the most part based on nutritional epidemiological studies which are for a variety of reasons highly unreliable. This is acknowledged even by nutritional epidemiologists themselves. For instance, Tim Byers writing in an issue of the *American Journal of Clinical Nutrition* devoted to nutritional epidemiology noted that because of the fact that animal nutritional studies have limited usefulness as the basis for determining unhealthy foods (because animals are fed foods in such large quantities that they have little relevance to human eating patterns), and because there are very few controlled human studies of specific foods and specific diseases, “most of our inferences about the roles of foods and nutrients in the prevention of chronic diseases must be based on observational epidemiology.”¹⁵⁵ Note that Byers characterizes the link between foods and disease as an “inference” as opposed to its description by the obesity crusaders as a settled scientific fact. In other words, since animal studies are not helpful in establishing a reliable causal link between specific foods and diseases in humans, and since there are few controlled studies in humans – for example, there are no such studies which link dietary fat to cancer, one is left to the “inferences” produced by observational epidemiology.

But even within the already problematic field of epidemiology, nutritional observational epidemiology suffers its own additional problems. Byers notes that “The classic criteria for causation are often not met by nutritional epidemiological studies in large part because many dietary factors are weak and do not show linear dose-response relations with disease risk within the range of exposures common in the population.”¹⁵⁶ Thus even the epidemiological studies that purportedly link certain unhealthy foods with certain diseases fail to establish a causal connection between the supposedly unhealthy food and the disease.

Second, the specific claims about unhealthy foods and disease are highly contradictory. In the 1930s and 1940s, for instance, the medical

¹⁵⁵T. Byers, *The Role of Epidemiology in Developing Nutritional Recommendations: Past, Present and Future*, AM. J. OF CLINICAL NUTR. 69: 1304-8S (1999).

¹⁵⁶*Id.* at 1340S.

profession recommended a diet high in fat, though by the 1950s dairy fats and meats were implicated as causes of heart disease. Despite this, in 1966 the U.S. National Research Council and the U.S. National Academy of Science still reported that there was not enough evidence from reduced fat consumption to justify population advice for fat reductions. The move to classify foods as good and bad depending on their supposed links with disease received official standing in 1970 when the anti-cholesterol crusader Jeremiah Stamler provided detailed diet instructions for every American to avoid butter, egg yolk, bacon and lard, instructions that were officially adopted by the American Medical Association and incorporated into successive dietary guidelines issued by the government. In 1976 the British Royal College of Physicians and the British Cardiac Society produced similar guidelines, including a recommendation to reduce fat consumption to a total of 35% of one's diet. Both sets of advice however failed to provide scientific evidence that avoiding these supposedly unhealthy foods would reduce mortality, which was supposedly their original justification.¹⁵⁷ As Jon Robison observes about this constantly changing, conflicting and ill-supported advice:

...[O]ur interpretation of what the research suggests to us about how foods or specific components of foods relate to our health, is constantly changing. Remember just a few years ago when all fats were considered to be BAD? Then it was only saturated fats that were BAD; then only some saturated fats. Most recently the villain de-jour is trans fats. Carbohydrates on the other hand- what we were supposed to be eating instead of the BAD fats – were considered GOOD. But now, only a few years later, they are BAD. But not all carbohydrates are BAD. Some carbohydrates are GOOD and some are BAD. Sugars are particularly BAD. But some sugars are better than others; sucrose is not as BAD as fructose, and so on and so on. Quite maddeningly, these confusing flip-flops have become a common occurrence with all different types of foods.¹⁵⁸

By the beginning of the 1990s the “worldwide consensus” about healthy and unhealthy foods was that fat should be no more than 30% of

¹⁵⁷See P.Skrabanek, *Fat Heads*, NAT'L REVIEW 43 (May 1, 1995).

¹⁵⁸J. Robison, Tech Central Station, Feb. 4, 2004.

a diet, with an equal ratio of saturated, monounsaturated and polyunsaturated fats (though this is now subject to controversy), cholesterol intake of less than 300 milligrams a day and sodium consumption of no more than three grams per day. Again, these recommendations about healthy foods were not widely supported by evidence which showed population-wide health benefits. To take but one example, the claim that polyunsaturated fats should make up 30% of one's daily fat intake was contradicted by the Seven Countries Study – the supposed main evidence supporting such dietary advice- which showed that the lowest rates of heart disease were in populations that received less than 30% of their calories from such fats. Again, Crete, with one of the lowest rates of heart diseases in the Seven Countries Study, had a dietary fat intake of 40%.

Third, many of the claims put forth by the obesity crusaders about the nature of so-called unhealthy foods are false. For instance, despite what is often claimed, all foods have nutritional value – even fats and sugars which are continually demonized as bad foods. Sugar is a carbohydrate and as such is by definition a nutrient. Or, for example, consider Coca-Cola[®], perhaps the most demonized of “unhealthy foods.” Coca-Cola[®] contains the same amount of sugar per liter as unsweetened orange juice and roughly the same amount of calories (39 calories per 100ml for Coca-Cola[®] compared to 36 for orange juice. What exactly makes one healthy and the other unhealthy? Again, there is frequently the implication if not the direct suggestion, that some foods are so inherently bad that they should never be consumed, or consumed in greatly reduced amounts. But there is no compelling scientific evidence that supports this link between any one food and a specific disease such as diabetes, cancer or cardiovascular disease.

Take the argument about dietary salt, which is always linked with sugar and fat as an “unhealthy” food component. Some organizations, like the U.S. based Center for Science in the Public Interest have asked the Food and Drug Administration to classify salt as a food additive to allow for its limited use in foods, claiming that reductions in dietary salt in the United States would save 150,000 lives a year. And Susan Jebb, head of nutrition and health research for the UK's Medical Research Council, has also called for substantial reductions in salt use arguing that salt reductions can reduce blood pressure and dramatically improve Britain's health.

The science about salt as “unhealthy” is, however, significantly different from the claims made by the critics of “bad foods.” To begin with, there is no study showing population-wide net health benefits from low-sodium diets. Since 1995 at least ten studies have looked at whether reduced salt diets provide a population health benefit. All of these studies have found that in the general population there is no health benefit from salt reductions, even though some sub-groups can benefit from reduced salt intake. Indeed, on a population-wide basis there is little evidence that reductions in ‘unhealthy’ salt intake results in a reduced number of strokes, heart attacks or the risk of premature mortality. In fact, for some groups such reductions actually *increase* certain risks. For example, analysis of the MRFIT (Multiple Risk Factor Intervention Trial) which followed the lives and deaths of 12,866 American males for an average of 12 years, found there were no health benefits from population wide low-sodium diets.¹⁵⁹

Nor is the MRFIT analysis an anomaly. A meta-analysis of randomized controlled trials of dietary salt reduction, published in the BMJ in 2002 found significant salt reduction led to only very small reductions in blood pressure; the degree of salt reduction and change in blood pressure were not related and there were no health benefits. The researchers did find certain risks associated with reduced salt intake, including effects on vascular endothelium and serum total and low-density lipoprotein cholesterol. As they noted, “lower salt intake in people with hypertension has been associated with *higher* (emphasis added) levels of cardiovascular disease and in general populations with greater all cause mortality.”¹⁶⁰

This absence of benefit is also found in the Dietary Approaches to Stop Hypertension (DASH), 1997 study.¹⁶¹ In the original DASH study, subjects consumed a diet high in fruits, vegetables and low-fat dairy products in which the salt content remained the same. After three weeks the DASH diet reduced blood pressure by 5.5/3.0 mmHG in mild hypertensives and 11.4/5.5 mmHG in those with extreme hypertension.

¹⁵⁹Multiple Risk Factor Intervention Trial Research Group, JAMA 248: 1465-1477 (1982).

¹⁶⁰L. Hooper et al., *Systematic Review of Long Term Effects of Advice to Reduce Dietary Salt in Adults*, BMJ 325: 628-37 (2002).

¹⁶¹L. Appel, *A Clinical Trial of the Effects of Dietary Patterns on Blood Pressure*, NEJA 336: 117-24 (1997).

Since the salt content was constant the reductions had nothing to do with the blood pressure changes.

In the second DASH study¹⁶² researchers examined the effects of the DASH diet at three levels – eight, six, and four grams a day – of salt intake. For the hypertensives in this study the DASH diet combined with a sodium restriction of four grams reduced systolic blood pressure by 11.5 millimeters as compared to the original DASH study with normal sodium levels which reduced systolic blood pressure for this group by 11.4 millimeters, a non-significant difference. And for those with normal blood pressure, eating the DASH diet with a low salt intake made little difference in blood pressure.

And a comprehensive analysis of 114 study populations found that the effect size of sodium reduction on blood pressure “does not justify a general recommendation for reduced sodium intake.” The researchers also found that the benefits of sodium reduction for hypertensives were significantly less than could be achieved by using antihypertensive drug therapy.¹⁶³

In an article published in 2005 in the American Journal of Hypertension¹⁶⁴ which looked at data from the U.S. National Health and Nutrition Examination Survey (NHANES), researchers found that top-number hypertensives, those with systolic blood pressure more than 140 mm/HG – already have the lowest intakes of salt, calcium, potassium and magnesium. What this group needs is a diet that increases these minerals – not reduces them. Telling them to reduce salt is obviously unwarranted and shows just how dangerous is the indiscriminate population-wide health advice about so-called good and bad foods like that offered by the obesity crusaders. As the authors note “...the emphasis of national nutrition policy on sodium restriction for hypertension is not consistent with these findings.”

¹⁶²P. Conlin et al., *The Effect of Dietary Patterns on Blood Pressure Control in Hypertensive Patients: Results from the Dietary Approaches to Stop Hypertension (DASH) Trial*, AM. J. OF HYPERTENSION 13: 949-55 (2000).

¹⁶³N. Graudal et al., *Effects of Sodium Restriction on Blood Pressure, Renin, Aldosterone, Catecholamines, Cholesterols, and Triglyceride* JAMA 279: 1383-1391 (1998).

¹⁶⁴M. Townsend et al., *Low Mineral Intake Is Associated with High Systolic Blood Pressure in the Third and Fourth National Health and Nutrition Examination Surveys - Could We All Be Right?* AM. J. OF HYPERTENSION 18: 261-269 (2005).

Fourth, the appropriateness of a particular food is more often the result of the context in which it is eaten as opposed to any inherent aspect of the food. Jon Robison notes that many people might consider broccoli as intrinsically healthy and pizza as inherently unhealthy:

On a given day, however, if an individual has eaten no protein, but consumed plenty of fruits and vegetables, eating only broccoli might contribute less to health because the body in this context needs protein not more fiber and antioxidants. If that same individual happened to be in prison for six months with the same two food choices: *healthy* broccoli or *unhealthy* pizza, which choice would best promote health? The answer is clearly the *unhealthy* pizza. In fact, choosing the *healthy* broccoli might just be fatal.¹⁶⁵

Fifth, the claimed links between specific foods and obesity in children and adolescents is highly questionable. There is, for example, no clear and consistent connection between fat intake and obesity in children. As Professor David Ashton notes “Epidemiological studies do not show a consistent association between dietary fat and adiposity in children and young adults.”¹⁶⁶ Though there is much speculation about the link between dietary fat – which is the most energy dense nutrient – and obesity, the relationship between the two is in fact not scientifically established. As Ebbeling et al. admit the “Findings of epidemiological studies do not consistently show an association between dietary fat and adiposity in children and young adults.”¹⁶⁷

Of course the culprit linking specific foods and obesity in children might not be fat but rather carbohydrates. Some observers have noted that the decline in fat intake has been compensated for by an increase in carbohydrate consumption by children and young people, especially through things like breakfast cereals, breads, pastries and fizzy drinks. But the evidence for this is not at all decisive. It is not at all clear how the consumption of carbohydrates like breakfast cereals contributes to pediatric obesity. One theory is that high glycemic index foods like cereals and fizzy drinks leads to hormonal changes which in turn cause

¹⁶⁵Robison, *supra* note 158.

¹⁶⁶D. Ashton, *Food Advertising and Childhood Obesity*, J. OF THE ROYAL SOCIETY OF MEDICINE 97: 51-52 (2004).

¹⁶⁷Ebbeling et al., *Childhood Obesity: Public-health Crisis, Common Sense Cure*, LANCET 360: 473-482 (2002), at 476.

hunger and lead to overeating. There are, however, no clinical trials that have substantiated this theory.

Equally important, there are a number of studies that count against the claim that such heavily advertised carbohydrates like fast foods and fizzy drinks lead to fatter children. For example, a 2005 study from researchers at the Health Behaviour in School-Aged Children Obesity Working Group looked at the supposed connections between overweight and obesity and diet and physical activity in 137,000 school children in 34 countries. The researchers found that there was a “negative relationship between the intake of sweets (candy, chocolate) and BMI classification in 31 out of the 34 countries... such that higher sweets intake was associated with a lower odds of overweight.” In other words the children who eat larger amounts of so-called unhealthy and heavily advertised foods like soft drinks, actually had less chance of being overweight. Again, “Overweight status was not associated with the intake of fruits, vegetables, and soft drinks...”¹⁶⁸

This research confirms the findings of several other studies that have also found that soft drinks and “junk food” do not cause childhood obesity. For instance, Field et al.¹⁶⁹ from Harvard looked at the eating and physical activity habits of 14,000 U.S. children aged 9-14 over a three year period and found that eating so-called junk food did not lead to obesity among children. However these foods were defined, with or without soft drinks, the researchers were unable to find a link between these heavily advertised “bad foods” and obesity. As the authors note, the “inclusion of sugar-sweetened beverages in the snack food category did not meaningfully change the results. Regardless of the definition of snack foods, there was not a strong association between intake of snack foods and weight gain.”¹⁷⁰ Indeed, as Field et al. note, their findings provide no support for the theory that high glycemic foods promote weight gain.

Nor do the results of a Canadian study that examined the eating and physical activity habits of 4,298 school children in an effort to determine

¹⁶⁸I. Janssen et al., Comparison of Overweight and Obesity Prevalence in School-aged Youth from 34 Countries and Their Relationships with Physical Activity and Dietary Patterns, *OBESITY REVIEWS* 6: 123-132 (2005).

¹⁶⁹A. Field et al., Snack Food Intake Does Not Predict Weight Change Among Children and Adolescents, *INT'L J. OF OBESITY* 28:1210-1216 (2004).

¹⁷⁰*Id.* at 1214.

which risk factors were important for overweight and obese children. The researchers included questions about whether the children ate breakfast, whether their lunch was brought from home or purchased at school, how often they ate in fast-food restaurants, whether there were regular family dinners and whether dinner was eaten in front of the television.¹⁷¹

They found that eating in a fast-food restaurant, supposedly a major source of childhood obesity, was not statistically significant as a risk factor for obesity, even in children who eat in such restaurants more than three times a week. There was also not a statistically significant association between the availability of soft drinks at school or schools with food vending machines and the risk of children being overweight or obese.

Similar evidence was found by researchers at the Centers for Disease Control and published in the *International Journal of Obesity* last year.¹⁷² They noted that “Evidence for the association between sugar-sweetened drink consumption and obesity is inconclusive....[N]ational data showed no association between sugar-sweetened beverage consumption and BMI....”¹⁷³ This finding was replicated in an earlier study by Forshee et al.,¹⁷⁴ which looked at the association between BMI and milk, soft drinks and juices where the authors reported that “BMI was not associated with consumption of milk, regular carbonated beverages, regular or diet drinks/ades, or non-citrus juices.”

And in a more recent study, Forshee,¹⁷⁵ using data from NHANES found “no statistically significant association [between fizzy drink

¹⁷¹P. Veugelers and A. Fitzgerald, Prevalence of and Risk Factors for Childhood Overweight and Obesity, *CANADIAN MEDICAL ASSOCIATION JOURNAL* 173:607-613 (2005).

¹⁷²B. Sherry, *Food Behaviors and Other Strategies to Prevent and Treat Pediatric Overweight*, *INT’L J. OF OBESITY* 29:S116-126 (2005).

¹⁷³*Id.* at S121.

¹⁷⁴Forshee et al., *The Role of Beverage Consumption, Physical Activity, Sedentary Behavior, and Demographics on Body Mass Index of Adolescents*, *INT’L J. OF FOOD SC. NUTR.* 55:463-478 (2004).

¹⁷⁵R. Forshee et al., *A Risk Analysis Model of the Relationship Between Beverage Consumption from School Vending Machines and Risk of Adolescent Overweight*, *RISK ANALYSIS* 25:1121-1135 (2005).

consumption and BMI], and, in fact regular carbonated soft drinks accounted for less than 1 percent of the variance in BMI.”

So here again, is another curious fact. The evidence linking specific foods or even whole diets to specific diseases like cardiovascular disease, cancer and diabetes and obesity is highly tenuous, yet it is claimed that advertising for these products makes us both fat and sick. We have emphasized this lack of compelling scientific evidence about causation since reports like Hastings and the IOM and the obesity crusaders routinely claim that there is a self-evident connection between so called “advertised diets” high in salt, sugar and fat, and childhood obesity and disease. But if it is not obviously the case that these foods are linked to childhood obesity and disease, then the case against advertising for such foods cannot proceed any more than the case against advertising for tobacco products could proceed in the absence of evidence that smoking causes disease.

Suppose, however, that for the moment we assume that at least one aspect of the toxic food environment story is true, namely we are getting fatter. Might there be an arguable alternative explanation for this other than the claim that it is due to eating too many unhealthy foods produced and promoted by the food industry? In other words might we concede the claim that adolescents and children are gaining weight without accepting that the cause of this weight gain is the result of a toxic food environment produced by advertising? The answer is yes as there is a significant amount of evidence that a plausible alternative cause of increased weight is the decline in physical activity in industrialized countries over the last century.

The evidence of such a decline in energy expenditure is considerable. As Lee and Paffenbarger¹⁷⁶ observed back in 1996 “Almost 60% of all U.S. adults today engage in no physical activity or only irregular physical activity....”¹⁷⁷ The same problem is to be found in the UK as the House of Commons Health Committee observed in its 2004 Obesity report that “... only around 37% of men and 25% of women currently achieve” the Department of Health’s activity targets. “Levels of activity

¹⁷⁶I. Lee and R. Paffenbarger, *How Much Physical Activity is Optimal for Health?*, RESEARCH QUARTERLY FOR EXERCISE AND SPORT 67: 206-8 (1996).

¹⁷⁷*Id.* at 206.

in the UK,” commented the report, “are below the European average which is part of the explanation for higher obesity rates.”¹⁷⁸

Moreover, in both countries, this pattern of minimal and irregular physical activity is also found in children. According to the U.S. Department of Health and Human Services, “Only about one half of U.S. young people (ages 12-21 years) regularly participate in vigorous physical activity.” The Department also found that “More than a third of young people in grades 9-12 do not regularly engage in vigorous physical activity. Daily participation in high school physical education classes dropped from 42 percent in 1991 to 29 percent in 1999.”¹⁷⁹

The sources of such a decline are various, ranging from changes in the types of work people do and the physical demands of their work to the increased use of cars to the ways in which people spend their leisure time. For instance, according to the U.S. National Bureau of Economic Research (NBER), “there has been a significant decline in physical activity from ‘technological changes in home and market production....’¹⁸⁰ Similarly, the U.S. Urban Institute in a report on the changing requirements of work observed that

Using Labor Department data, we estimate that the percentage of workers in physically demanding jobs has dropped substantially - from about 20% in 1950 to almost eight percent in 1996.... Our estimate probably understates the decline because it does not take in account the possibility that even jobs classified as physically demanding today are less strenuous than jobs in the past.’¹⁸¹

Or again, as Jebb notes in the British Medical Bulletin “...there has been no relationship between either total energy intake or fat consumption and the prevalence of clinical obesity over the last 60 years, whilst proxy

¹⁷⁸Health Committee House of Commons, *Obesity*, London: The Stationery Office Ltd, 2004, at 41.

¹⁷⁹Department of Health and Human Services, 1996.

¹⁸⁰D. Lakdawalla et al., *THE GROWTH IN OBESITY AND TECHNOLOGICAL CHANGE* (2004).

¹⁸¹C. Steuerle et al., *Can Americans Work Longer?*, Urban Institute, Aug. 15, 1999.

measures of physical inactivity (TV viewing and car ownership) are closely related.”¹⁸²

There is also evidence that links this decline in physical activity with weight gain. The U.S. Department of Agriculture, in a comparison of physically active and more sedentary jobs, found that “After 14 years of working, those in the least sedentary occupations have about 3.5 units of BMI less than those in the most sedentary ones.”¹⁸³ The NBER attributes 60% of the U.S. weight gain to declining physical activity. Again, as Trojano et al. concluded based on the NHANES Survey, “The lack of evidence of a general increase in energy intake among youths despite an increase in the prevalence of overweight suggests that physical inactivity is a major public health challenge in this group.”¹⁸⁴

The same link between physical inactivity and weight gain was observed by Kimm et al. last year writing in *The Lancet*: “These results suggest that habitual activity plays an important role in weight gain, with no parallel evidence that energy intake had a similar role... The composite findings from NGHS so far indicate that the drastic decline in habitual activity during adolescence might be a major factor in the doubling of the rate of obesity development in the USA in the past two decades....”¹⁸⁵ And it also was observed in a recent study by Patrick et al.¹⁸⁶ which examined the connection between overweight, obesity and seven dietary and physical activity factors. The authors note that “Of the seven dietary and physical activity variables examined in this cross-sectional study, insufficient vigorous physical activity was the only risk factor for higher body mass index for adolescent boys and girls...” The same link between physical inactivity and overweight and obesity is found in a consensus statement about the physical activity and unhealthy weights published in 2003¹⁸⁷ which concluded that “A decline in daily

¹⁸²Jebb, *supra* note 153.

¹⁸³Lakdawalla, *supra* note 180.

¹⁸⁴Trojano, *supra* note 152.

¹⁸⁵Kimm, *supra* note 151.

¹⁸⁶K. Patrick et al., *Diet, Physical Activity and Sedentary Behaviors as Risk Factors for Overweight in Adolescence*, ARCHIVES OF PEDIATRICS AND ADOLESCENT MEDICINE 158: 385-90 (2004).

¹⁸⁷W. Saris et al., *How Much Physical Activity Is Enough to Prevent Unhealthy Weight Gain? Outcome of the IASO 1st Stock Conference and Consensus Statement*, OBESITY REVIEW 4: 101-14 (2003).

physical activity levels (PALs) is clearly a major factor contributing to the current obesity epidemic...”

As has been discussed, the evidence for the causal connections between food advertising to children and the epidemic of pediatric obesity is decidedly weak. As we have seen, it is not at all clear that children have gotten fatter, or that if they have gotten fatter it is because they have eaten more, or even because they have eaten “unhealthy foods.” It now remains to examine the central argument that food advertising is the source of children and adolescents eating unhealthy foods and becoming overweight.

The core argument against food advertising to children and adolescents is that such advertising causes them to eat a diet which makes them overweight, obese and unhealthy. This argument is advanced in different ways by two different groups of food advertising critics. One might be called the unsophisticated, rhetorical advocates. They offer arguments without any substantial analysis of the evidence supporting them, and at times appear to believe the arguments are self-evident. A second group is made up of official bodies such as the U.S. Institute of Medicine and the UK’s Food Standards Agency, both of which have commissioned substantial academic reviews of the scholarly research on the purported effects of advertising, and consequently claim that their arguments about advertising and obesity are consistent with the standards of “evidence-based medicine.”

1. Food Advertising Causes a Diet Which Produces Overweight and Obese Children

Typical of the first group are anti-food advertising claims advanced by Marion Nestle in her book *Food Politics*,¹⁸⁸ Susan Linn in her book *Consuming Kids*¹⁸⁹ and Kelly Brownell in his *Food Fight*¹⁹⁰ Despite the unsophisticated and rhetorical character of their anti-advertising advocacy, Brownell, Linn and Nestle are academics, (Brownell is at Yale

¹⁸⁸M. Nestle, *FOOD POLITICS: HOW THE FOOD INDUSTRY INFLUENCES NUTRITION AND HEALTH* (2002).

¹⁸⁹S. Linn, *CONSUMING KIDS: THE HOSTILE TAKEOVER OF CHILDHOOD* (2004).

¹⁹⁰K. Brownell and K. Horgen, *FOOD FIGHT: THE INSIDE STORY OF THE FOOD INDUSTRY, AMERICA’S OBESITY CRISIS, AND WHAT WE CAN DO ABOUT IT* (2004).

University, Linn at Harvard and Nestle at New York University), who presumably understand the ways in which scholarly arguments are made.

Nestle bases her policy proposal to “restrict television advertising of foods of minimal nutritional value” on the claim that “televised commercials influence the food choices, preferences and demands of children-particularly young children,” something she says “has been well understood since the early 1970’s.”¹⁹¹ Moreover, she implies that much of food advertising directed to children is unfair since “prior to the age of nine or ten, children do not readily understand the difference between commercials and programs.”¹⁹² Indeed, according to Nestle “Even high school students have difficulty distinguishing between commercials and programming....”¹⁹³

In support of these sweeping and highly controversial claims, Nestle provides six pieces of evidence, the most recent of which is 15 years old, with one study coming from 1964 and another from 1974. For example, her support for the claim that children cannot distinguish TV advertisements from programs until they are nine or ten years old and that even high school students cannot distinguish between commercials and programming is based on a single non-peer-reviewed study from 1964. Moreover, it is contradicted by a substantial number of recent studies which show that children as young as three or four can distinguish an ad from a TV program. As Dale Kunkel, lead author for the American Psychological Association’s Task Force on Advertising and Children recently observed “by age three or four most children are able to differentiate an ad from a program.”¹⁹⁴

Nor is Nestle’s evidence about the ways in which televised food advertising affects the food choices and preferences of children any more compelling. For instance, in support of this claim she references a two decade-old study by Dietz and Gortmaker¹⁹⁵ about the connection between obesity and TV viewing. Unfortunately, the study was not about the causal connection between viewing TV food advertisements and

¹⁹¹Nestle, *supra* note 188, at 182.

¹⁹²*Id.* at 181.

¹⁹³*Id.*

¹⁹⁴D. Kunkel and D. Roberts, *supra* note 12.

¹⁹⁵W. Dietz and S. Gortmaker, *Do We Fatten our Children at the Television Set? Obesity and Television Viewing in Children and Adolescents*, *PEDIATRICS* 75:807-812 (1985).

obesity, but between TV viewing and obesity. Indeed, Nestle appears to be unaware of the difference between the claim that food advertising affects children's food choices as opposed to their brand preferences, since her major instance of an advertising effect relates to brand preference advertising,¹⁹⁶ the effects of which are not disputed.

Linn's arguments are equally unsophisticated and unsupported, despite the fact that her book *Consuming Kids: The Hostile Takeover of Childhood* is supposed to present a critique of the effects of advertising on children. For instance, she argues that "When it comes to food, children are targets for everything from edible checkers to battery-operated lollipops. No wonder 25 percent of American children are overweight, obese or at risk for obesity."¹⁹⁷ Linn obviously believes that the causal connection is intuitive since she offers no evidence that moves one from the claim that children are the targets of food advertising to the conclusion that this is what makes them overweight or obese. Indeed, the only support that she provides for this connection is a reference to the UK's Food Standards Agency's Hastings Report – which we consider below – and a review by Horgen, Choate, and Brownell.

Despite Linn's reliance on him, Brownell's arguments for the causal connection between food advertising, children's diets, and overweight and obesity are decidedly curious in that he advocates a ban on food advertising to children even while he admits that "there is only circumstantial evidence that the ads cause poor eating."¹⁹⁸ Having reviewed a small portion of the extant evidence, Brownell, despite finding this selected evidence "circumstantial" nonetheless argues that "We can conclude that more TV means more food ads, and with more ads comes deteriorating diet."¹⁹⁹ How such incomplete and circumstantial evidence establishes a causal connection between food advertising, children's diets and obesity, let alone a ban on food advertising, is unexplained.

Even more curious is Brownell's support for the claim that food advertising is "deceptive" and "exploitative."²⁰⁰ Despite the complexity

¹⁹⁶Nestle, *supra* note 188, at 180.

¹⁹⁷Linn, *supra* note 189, at 96.

¹⁹⁸Brownell, *supra* note 190, at 105.

¹⁹⁹*Id.* at 106.

²⁰⁰*Id.* at 116.

of this issue, and despite the extensive research literature, Brownell's sole argument is from authority. As he writes:

When the country's main pediatrics association, a broad coalition of organizations concerned with child welfare, an organization for media and children, a leading nutrition watchdog group, and a top medical journal conclude that advertising practices are deceptive, exploitative, and harmful to the health and well-being of our children, there is reason for the nation to take notice.²⁰¹

2. The Hastings Report

Thus far the claim that food advertising to children causes a diet which results in overweight and obesity is much closer to rhetoric than to evidence-based science. What then, of the major academic reviews of the supposed causal connection – the Hastings Review for the UK's Food Standards Agency,²⁰² and the Institute of Medicine's *Food Marketing to Children and Youth: Threat or Opportunity?*²⁰³

Both the Hastings and the IOM reports make much of the fact that they follow the principles of evidence-based medicine, in order to insure that their judgments are both rigorous and objective. However, it important to note before turning to the two reports, that they share a central and definitive flaw in their understanding of what counts as demonstrating causality, given the nature of obesity.

If defining obesity as a disease is to make any sense then it can only be as it is defined as a multifactoral disease similar to cardiovascular disease or cancer. By multifactoral we mean a disease with multiple risk factors. This recognition of the multifactoral character of obesity is evident in most reports that attempt to explain it, even those which assign greater weight to one risk factor. Though there is no comprehensive list of the risk factors for obesity, the literature, including the pronouncements of the obesity crusaders, typically includes the following:

²⁰¹*Id.*

²⁰²G. Hastings et al., *supra* note 141.

²⁰³M. McGinnis et al., *supra* note 141.

- birthweight,
- parental adiposity,
- gender,
- race,
- working in a job requiring little physical activity,
- living in a city,
- living in a suburb,
- owning a car,
- earning less than \$30,000 per year,
- not having access to a park or playground,
- having less than 12 years of education,
- living in a home with foods highly accessible,
- living in a single parent family,
- having a mother who works outside of the home,
- eating in front of the TV,
- taking a bus to school,
- not smoking,
- being depressed,
- attending a school without a physical education program,
- eating a school lunch,
- using a school vending machine,
- not eating breakfast,
- living in a home with irregular family dinners,
- buying food in a corner store or convenience store,
- having type 2 diabetes,
- having cardiovascular disease,
- eating food away from home,
- engaging in little exercise,
- consuming soft drinks,
- seeing TV advertisements for food,
- eating a diet high in fat,
- eating a diet high in carbohydrates,
- eating a diet high in sugar eating fast foods,
- having access to inexpensive food,
- shopping for food while hungry,
- having little access to healthy food,
- eating food other than at mealtimes,
- owning/watching a TV,
- owning/using a computer,
- attending a school without a nutrition education program,
- playing video games,

- eating in a fast food restaurant.

This means that in order to identify a causal connection between a particular risk factor and obesity, one must design a study that controls for all of the other risk factors that might lead to obesity. Unless this is done, one's causal hypothesis is improperly specified and it is impossible to say which factor was the causal one. The implication of this for the claims about a causal connection between food advertising, children's diets, and obesity are significant in that most of the studies that purport to establish such connections have not controlled for even a handful of these factors.²⁰⁴ Atkin and Dietz and Gortmaker are unusual in controlling for a few of these factors. This means that whatever claims may be made about them, either by their authors or by the authors of the Hastings Review and the IOM report, they cannot provide scientifically valid evidence of a causal connection between food advertising, children's diets and obesity.

The Hasting Review (named after Professor Gerard Hastings of the Center for Social Marketing of the University of Strathclyde) is the product of an extensive literature search which initially produced almost 30,000 papers on food advertising, children, diets, and obesity, which was then reduced to a shortlist of 120 papers considered appropriately scientific. Of these 120 papers, 46 were used to answer the question of whether there was a causal link between food advertising and children's diet. On the basis of this evidence the Review concludes that:

1. There is a lot of food advertising to children.
2. The advertised diet is less healthy than the recommended one.
3. Children enjoy and engage with food promotion.
4. Food promotion is having an effect, particularly on children's preferences, purchase behavior and consumption.
5. This effect is independent of other factors and operates at

²⁰⁴C. Atkin, *Effects of Television Advertising on Children - Survey of Children's and Mothers' Responses to Television Commercials*, Report # 8 Michigan State University Department of Communication (1975).

both the brand and category level.²⁰⁵

Following the submission of the Hastings Review, the FSA convened an academic panel to assess what the Hastings Review had established. The panel concluded that the Hastings Review “had provided sufficient evidence to indicate a causal link between promotional activity and children’s food knowledge, preferences, and behaviours.”²⁰⁶ This conclusion is, of course, somewhat different from the Hastings Review since it is accepted by almost everyone in the debate that advertising affects knowledge, preferences and behavior. The relevant question is whether this occurs at the level of the brand or, as Hastings asserts, the diet (category).

In addition to the general problem about causality in this debate, there are seven problems with Hastings’ findings, problems which vitiate any claim that the Hastings Review provides compelling evidence of a causal connection between food advertising to children, children’s diets and obesity. First, the claim that there is a “lot of food advertising to children” is a curious one. In the UK, for instance, ad spend on food and drink has been falling in real terms since 1999 and is now at roughly 1982 levels. In 1982 food and drink ads constituted 34% of the total TV advertising in the UK whereas in 2002 they were 18%.²⁰⁷

In the United States one finds a similar trend. According to a now-former Federal Trade Commission official²⁰⁸ advertising during children’s TV programming has declined by 34% in recent years. Data from Nielsen surveys shows that food advertising on television has itself declined by 13% since 1993. Additionally, children’s TV viewing has not increased during the period of the “obesity epidemic,” with some observers suggesting that it has not changed for children and adolescents for the last 40 years.²⁰⁹ There is some evidence that the time children spend watching TV has actually declined in recent years.²¹⁰

²⁰⁵Hastings Review at 3.

²⁰⁶*Id.* at 1.

²⁰⁷Advertising Statistics Yearbook, WARC, Henley, UK (2004).

²⁰⁸T. Zywicki, *Obesity and Advertising Policy*, GEO. MASON L. REV. 12: 979-1011 (2004).

²⁰⁹S. Biddle et al., *Physical Activity and Sedentary Behaviours in Youth: Issues and Controversies*, J. OF THE ROYAL SOCIETY OF HEALTH 124: 29-33 (2004).

²¹⁰Zywicki, *supra* note 208.

Finally, it cannot be assumed that TV viewing is a legitimate proxy for advertising exposure since the two are not equivalent. Though this is recognized by some reviewers, few studies of children's exposure to advertising actually measure advertising exposure as opposed to TV viewing.

Thus the mere assertion that there is a "lot of food advertising to children" is difficult to credit against the actual data and this data on falling amounts of food advertising to children on TV is difficult to reconcile with a causal thesis in which such advertising has supposedly lead to the recent rise in childhood obesity.

Second, the Hastings Review appears to ignore evidence which suggests that children see a far more balanced presentation of foods and diet than the one which critics of food advertising portray. For instance, a unique UK study²¹¹ looked at the food references and messages in regular programming as opposed to those contained in food advertising. The study found that there were as many references to food within regular programming as during the commercial periods. It also found that the food references in regular programming watched by children were far more centered on so-called healthy foods. For example, fruit and vegetables were the most frequently portrayed foods in regular programming.

Third, it is difficult to understand what is meant by the claim that the advertised diet is "less healthy" than the recommended diet. Most obviously, there is no such thing as an "advertised diet." Food advertising is advertising about brands, not diets. Moreover, the Review provides no evidence to support its distinction between an advertised diet, which is less healthy, and a healthy and presumably unadvertised diet. There is absolutely nothing in the Hastings Review that establishes the claim that there is a causal connection between a particular food or food group and disease. Perhaps the authors consider this obvious, but it is not. As we have seen, there is no compelling scientific evidence which links a diet or an individual food with a particular disease. In a review which is based on the fact that the harm of food advertising is that it leads children to consume foods that lead to disease, this is an astonishing omission which serves to undermine the ability of the

²¹¹R. Dickinson, *Food and Eating on Television: Impacts and Influences*, NUTRITION AND FOOD SCIENCE 30: 24-29 (2000).

Hastings Review to make any compelling causal claims. Finally, the claim that most food advertising is for an “unhealthy” diet is not substantiated in the Review. Some of the largest advertisers in both the UK and the United States are supermarkets who advertise fresh foods – presumably “healthy” according to the Hastings Review, extensively.

Fourth, the Hastings Review completely ignores, as does the IOM report, some important research which undermines the Review’s implicit view that children are passive and uncritical consumers of advertising. The Hastings Review’s belief that advertising has almost magical powers to affect what children eat is especially challenged by a two year project on The Development of Television Literacy in Middle Childhood and Adolescence funded by the UK Economic and Social Research Council and carried out by Professor David Buckingham.

Buckingham’s findings, reported in his book *Children Talking Television*, focus on the ways in which children, aged 7-12, actually talk about television. His findings are based on a variety of activities undertaken over fifteen months with children in small groups of between two and five children. The sample included 90 children with equal numbers of boys and girls recruited from four UK schools and chosen to provide a balance of race and class. Two schools were located in the London inner city with a majority of children from working class backgrounds and a high proportion from single-parent homes. The two suburban schools were in a comparatively affluent outer London borough with a majority of children from middle class, two parent families.

In the session devoted specifically to TV advertising, the session began with showing the children four advertisements taken from a commercial break during a children’s program. The interviewer then asked the children questions about what they would normally do at home during a commercial break, what they liked and disliked about the ads, why they thought there were ads on TV, what the ads were for, and whether they had purchased things that they had seen advertised. Specific questions about the four ads focused on who the children thought the ad was aimed at and why the advertisers choose the people they choose to be in the ads. In summarizing the children’s discussion of the advertising, Buckingham notes that:

... the children demonstrated a clear awareness of the functions of advertising, and in many cases a profound

degree of skepticism. Their ‘defences’ were very diverse and often extremely forceful. What emerges here is an image of children, not as vulnerable and innocent, but on the contrary as ‘streetwise’ and highly cynical about advertising - and indeed as more than capable of protecting themselves from its alleged effects.²¹²

For instance, when the children were asked about the purpose of advertising, replies included Ben (age 8) “they’re trying to persuade people to buy things or do things”, or Nancy (8) “Buy all the things, that’s why they advertise it, cause they can’t get anyone to buy it, so they just try and get it, make it look really good.” Notice the implicit assumption in Nancy’s comment that she realizes that there is some element of deception or at least embellishment in advertising in that advertisers attempt to make things look better than they might be.

In some cases, Buckingham notes there was a generalized rejection of advertising. Ivor (8), for instance said “I think they just want our money,” while others described advertising as a “con” or “rip off.” Children clearly understood that there was a discrepancy between the real world and the world shown in advertising. In a washing powder ad, for example, the children suggested that the results were “faked” and with toy advertisements many said that the claims made were false.

The children were also skeptical about food advertising. Justine (8) claimed that despite different brands, all crisps were “just the same.” Several children were skeptical about the implication from a Diet Coke ad that drinking Coke would make you beautiful.

- Charlotte (8): “Diet Coke makes you fat. If you sort of like have ten bottles of Diet Coke, cause you think it’s absolutely brilliant, you’ll walk around like this [imitates fat person].”
- Diana: “It makes your teeth go bad.”
- Nancy (8): “Beautiful people, they only get [film] them from a distance, because they’ve got no teeth!”

²¹²Buckingham, *supra* note 38, at 245.

- Anne (10) suggested that Diet Coke was “bad for your brain” because it contained artificial sweeteners, while Sonia (8) argued that sweet drinks were “not good for you, they haven’t got no vitamins in, they make you hyperactive.” Justine (8) described how she studied the ingredients listed on the packets of cereals, yoghurts and fruit drinks, looking for information about sugar and additives.
- As Buckingham notes, the most cynical comment on food advertising came from Anne (10) “Kellogg’s Oat Bran isn’t good for your heart. Even though it’s in a heart-shaped bowl, and it’s supposed to be a sensible breakfast, it’s got just as much crap in it as Coco Pops...”²¹³

The children’s food advertising literacy was particularly apparent with respect to the use of celebrities to endorse products, something increasingly under attack by the obesity crusaders. Consider the comments of two ten year olds speaking about Diet Coke and Lucozade advertisements using celebrity footballer John Barnes.

- Adele (10): “I think they choose those people, cause they get actors or very talented people, but they have to be slim and beautiful cause it’s an advert for Diet Coke, and they think, [mocking voice] you can drink this without doing exercises and you’ll get to look like her...”
- Tracey (10): “I know why they’ve got him (John Barnes) to do that advert because he’s a famous footballer and they thought, they think that if they drink that drink and play football, the will score something and it will give them more strength.”
- Interviewer: “And do you believe that?”
- Tracey: “No!”²¹⁴

Fifth, there is little evidence adduced to support the key conclusion that advertising affects children’s diets. For example, the Review, in

²¹³Buckingham, *supra* note 38, at 251.

²¹⁴*Id.* at 257.

examining the evidence about whether food promotion influences children's food consumption behavior, refers to eleven studies supporting the conclusion that it does. Yet of the eleven studies, nine provide no evidence in support of the claim. Again, in support of the claim about dietary impacts, the Review relies extensively on a study by Bolton²¹⁵ a 25 year-old study that involved a sample of 262 Ohio children and found that exposure to food advertising reduced the quality of their nutritional intake, but had no effect on their caloric intake. In other words there was no connection in the study between the supposed affect of food advertising and childhood obesity. Even on the issue of advertising's effect on nutritional intake, the study found that advertising accounted for only 2% of the differences found in the children. More importantly, the influence of parents on children's food choices was found to be fifteen times more important than advertising. All of this makes it difficult to conclude that this study constitutes evidence for a causal connection between food advertising, children's diet and childhood obesity.

Sixth, what evidence the Hastings Review's does produce to support the claim of a causal connection between food advertising and children's diets fails completely to establish such a link. The primary reason for this is that despite the Hastings Review's claim that the effect of advertising on diet is "independent of other factors," this is not established. As we noted previously, to determine that advertising's effect was independent, one would have to control for the other factors that influence children's diets. Yet none of the studies presented as evidence by the Review does this. Indeed, the Hastings Review concedes that "no studies addressed this question directly"²¹⁶ Nevertheless the Hastings Review adduces thirteen studies as evidence of this crucial connection. Five of these studies fail to touch on a connection at all. The remaining eight do not deal with diet at all, and instead look at advertising in terms of such categories as salt content, sugar content, or fat content – none of which constitutes a dietary category – as opposed to looking at for instance all snack foods, which would at least come closer to approximating one aspect of a diet. Further, all the studies show is that children preferred one product over another rather than one diet over another.

²¹⁵R. Bolton, *Modeling the Impact of Television Food Advertising on Children's Diets*, CURRENT ISSUES RES. AD. 6: 173-199 (1983).

²¹⁶Hastings Review at 172.

Seventh, the Hastings Review completely ignores a number of econometric analyses of the case for a causal connection between food advertising, food consumption and diet. For example Peter Kyle of the University of Lancaster²¹⁷ examined the impact of food advertising on food consumption in the UK and found no evidence to support the “popular myth that advertising will increase market size.” Then too there is the work of Martyn Duffy of the University of Manchester who looked at the supposed impact of advertising on eleven food categories from 1969-1999, precisely the question at issue in the Review.²¹⁸ Duffy found that not only did advertising have no effect on food demand but that it had virtually no effect on the demand for any individual food. As he notes “This study joins the accumulating number of studies that have found little or no evidence to support the view that advertising can affect the product composition of total food demand.” In 2003 in a second attempt to inform the growing debate on whether restrictions or bans on food advertising were justified,²¹⁹ Duffy again looked at the issue of food advertising. Again he found that “there is very little evidence here to support the view that advertising is a potent force in the determination of consumer preferences.”

Duffy’s conclusions are hardly exceptional. For example, Henry carried out two studies of the effect of advertising on such items as breakfast cereals and cookies, both frequently cited as culprits in the childhood obesity epidemic. One study looked at advertising for such product from 1975-1983 and a second at marketing for the same products ten years later. His conclusion in both studies was that advertising did “not over the years affect market size in any general way or to any material extent.”²²⁰

Similar conclusions about the effects of food advertising are also found in Yasin,²²¹ which looked at the effect of advertising on 31 frequently purchased foods, including many claimed to be connected with childhood obesity, including breakfast cereals, biscuits (cookies),

²¹⁷*The Impact of Advertising on Markets*, INT’L J. OF ADVERTISING (1982).

²¹⁸M. Duffy, *The Influence of Advertising on the Pattern of Food Consumption in the UK*, INT’L J. OF ADVERTISING 18: 131-168 (1999).

²¹⁹M. Duffy, *Advertising and Food, Drink and Tobacco Consumption in the United Kingdom: A Dynamic Demand System*, AGRICULTURAL ECONOMICS 28: 51-70 (2003).

²²⁰H. Henry, *Does Advertising Affect Market Size?*, ADMAP (Jan. 1996).

²²¹J. Yasin, *The Effects of Advertising on Fast-moving Consumer Goods Markets*, INT’L J. OF ADVERTISING 14:133-147 (1995).

desserts, chocolate, soft drinks, crisps, ice cream and prepared snacks. He found that there was no relationship between advertising and market growth and no relationship between advertising and market size.

It might be argued, of course, that these studies are large scale analyses involving multiple foods, and as such they might well miss the impact of advertising for a single “unhealthy food” which might be part of a dietary pattern. Consider then a study that looks at the influence of advertising on just one such food – chocolate confectionery. Eagle and Ambler²²² looked at the impact of advertising on chocolate consumption in five European countries in order to specifically test the claim by European public health authorities that a reduction in advertising would reduce “inappropriate” food consumption. What they found was that there was no statistically significant association between the amount of advertising and the size of the chocolate market. As the authors observe “It seems likely that those calling for curtailing advertising are seeking a convenient scapegoat rather than attempting to understand either how advertising works or when it increases category demand...”²²³

Thus despite the claims of the Food Standards Agency that the Hastings Review provides compelling evidence that food advertising to children affects their diet, the evidence put forward by the Review fails to provide any sound reasons for believing that there is a causal connection between food advertising, children’s diets and childhood obesity.

3. The Institute of Medicine Report

What then of the more recent IOM Report? Like the Hastings Review, the IOM Report bills itself as a comprehensive and rigorous examination of the evidence about the effects of food advertising on children and adolescents, though like the Hastings Review it completely omits any discussion of the relevant econometric literature on food advertising and consumption. This is important, for the IOM inasmuch as it labels itself the science “advisor to the nation.” Like the Hastings Review, the IOM Report makes a number of claims about the supposed effects of food advertising on the diets of children and young people and

²²²B. Eagle and T. Ambler, *The Influence of Advertising on the Demand for Chocolate Confectionery*, INT’L J. OF ADVERTISING 21:437-54 (2002).

²²³*Id.* at 450.

also on their weight. And as with the conclusions of the Hastings Review, the conclusions of the IOM Report are often misrepresented for ideological purposes by the critics of food advertising.

For instance, one of the IOM Report's more appropriately cautious scientific conclusions that the "current evidence is not sufficient to arrive at any findings about a causal relationship from television advertising to adiposity among children and youth," is quickly lost in the comments of the committee chair – Michael McGinnis – who told the press at the conference releasing the report that "There is strong evidence that television advertising influences the diets of children." A careful reading of the IOM Report reveals, of course, that McGinnis' claim is not true, even on the report's own terms, which are themselves questionable. And, of course, the question of dietary influence by itself is still not the truly important question, which is whether food advertising makes children fat and unhealthy, the answer to which in turn requires a causal link between advertised foods, weight gain and ill health, something, as we have seen, for which there is no conclusive evidence.

Of course, McGinnis' comments reveal much about the real purpose of "scientific" reviews like the Hastings and the IOM. The purpose is not to enhance our scientific understanding of a highly complex issue, but rather to put a scientific veneer on a collection of highly contentious claims strong enough to provide a policy groundwork for significant restrictions on food advertising or provide ammunition for litigation. The problem with veneers, of course, is that they are liable to crack. McGinnis' ideological take on the IOM Report is not unique. Fellow committee member Aimee Dorr of the University of California, Los Angeles opined that the IOM Report was the "nail in the coffin" of food advertising. If so, it is both a very strange nail and coffin.

The faux science at work at the IOM is seen most obviously in the fact that several of the report's authors had already come to their conclusions about both obesity and food advertising prior to examining the evidence and producing their report. Rather than coming to the IOM process with minds open, they came with a public record of commitment to a particular view. For instance, Aimee Dorr some twenty years ago in 1986²²⁴ had already concluded when writing about the importance of

²²⁴A. Door, TELEVISION AND CHILDREN: A SPECIAL MEDIUM FOR A SPECIAL AUDIENCE (1986).

involuntary regulation for children's advertising that "research information...can help shape voluntary and involuntary regulations of programs and commercial advertising to children,"²²⁵ a view as unsupported in 1986 as it is in 2006. And Dale Kunkel, another author argued, as we previously saw, in 1989 that the "most sound policy for our nation's children would be to ban advertising from children's programmes altogether."²²⁶ What is disturbing about this is that rather than a scientific report produced through an objective process, we seem to have a report whose work is shaped by authors whose advocacy for a particular policy position is not revealed.

Again, for instance, we are not told that the IOM Report committee's chair, Michael McGinnis had well prior to the start of the committee's work come to the conclusion both that Americans were getting fatter and that this was a major policy issue. Nor are we told how completely wrong he was on these issues.

McGinnis, for example, is the co-author of the 1993 *Actual Causes of Death in the United States*,²²⁷ which claimed that "diet and activity patterns" were the second leading cause of death in the United States, being responsible for 300,000 deaths a year, second only to tobacco. This figure, of course, provided the platform for the ill-fated Mokdad et al. 2004 study²²⁸ which claimed that diet and lack of physical activity were responsible for 400,000 annual deaths, a figure in excess of tobacco deaths. Not surprisingly, McGinnis and Foege in an editorial accompanying the Mokdad study²²⁹ lauded Mokdad's figures on overweight and obesity as providing a "stronger measure of confidence" in the effects of overweight and obesity. They also argue, without any evidence, that "a substantial proportion of early deaths among the U.S. population is preventable through lifestyle change,"²³⁰ and claim that the decisions about "what kinds of food to consume" are the "result of strong cultural and commercial signals."

²²⁵*Id.* at 148.

²²⁶Kunkel, *supra* note 12.

²²⁷McGinnis, *Causes of Death in the United States*, JAMA 270: 2207-2212 (1993).

²²⁸Mokdad et al., *Actual Causes of Death in the United States*, JAMA 291: 1238-1245 (2000).

²²⁹J. McGinnis and W. Foege, *The Immediate vs the Important*, JAMA 291 (2004).

²³⁰Mokdad et al., *supra* note 228, at 1264.

This confidence in the Mokdad obesity death numbers, of course, was entirely misplaced as a year after the publication of the Mokdad study, the CDC retracted the 400,000 annual deaths from diet and activity patterns, and admitted that the figure of net obesity and overweight related deaths in the U.S. was not 400,000, nor McGinnis and Foege's 300,000, but rather 25,814.²³¹

So Michael McGinnis assumed his role as chair of the IOM Report committee already committed to several key components of the story about food advertising, children and obesity: namely that Americans, including children are too fat, and this fat is making them not only sick but killing them; their obesity is to a large extent a product of the food they eat; and the food they eat is a result of those "commercial signals." This is not to suggest that McGinnis, Kunkel or Dorr are not entitled to their views about food advertising, obesity and children. It is simply to say that they did not approach their work without substantial bias and that the reader is not informed of that bias.

Turning to the IOM Report itself, the essential problem is twofold: its evidence fails to support its claims and this in turn creates a mismatch between its claims and the policy recommendations which grow out of them. In some sense, the report's authors appear to understand this, since instead of talking about the critical question – does food advertising make children fat – they talk about the influence of advertising on children's food preferences. But this misses the point. No one in the food advertising debate denies that advertising affects children's food preferences, at least in the sense of brand preferences; what is at issue is whether it affects their diets and whether it causes obesity, two quite different questions. To affect a child's diet and hence his weight, his food preferences have to be realized. And since most children do not purchase the majority of their food, this realization depends on their parents. So if there is a causal connection from food preference to diet to weight, if necessarily involves parental decision-making.

Indeed, the authors seem to realize that they have failed to provide a scientific, as opposed to an ideological, basis for proposing restrictions on food advertising. This is because science at bottom is about demonstrating causal connections, connections that are measurable,

²³¹Flegal et al., *Excess Deaths Associated with Underweight, Overweight and Obesity*, JAMA 293: 1861-1867 (2005).

reproducible, and specify their margin of error. And the evidence assembled by the IOM Report, self-admittedly, fails to reach this standard. As the report notes “the current evidence is not sufficient to arrive at any finding about a causal relationship from television to adiposity.”²³²

In other words, however as much as the authors try to distract by answering non-relevant questions, the answer to the central question is there, and it means that there is no justification for the policy menu advanced by the report.

The report in reality says more about the IOM’s pretensions to science and objectivity than it does about the role of advertising in childhood obesity. Rather than reading like a scientific report, the IOM’s work appears more as an ideological document written by a group of people who have strong, and for the most part unsupported views about advertising, definite biases about what constitutes “good/healthy” and “bad/unhealthy” foods, and a serious misunderstanding of how the scientific method moves from hypothesis to conclusion. Instead of a carefully evidenced movement from data to conclusion, the report’s evidence fails to support its conclusions. To arrive at the IOM Report’s public policy recommendations on restricting food advertising, readers must make a purely speculative leap from what the evidence shows to what the report demands. As even Aimee Dorr admits about her nail in the coffin, “It is not the perfect golden spike, but it is sufficient to take action...”

These causal failings are evident throughout the IOM Report, but most particularly in two instances. First, though the IOM Report discusses the foods that children eat,²³³ it fails to provide any causal evidence that these foods are linked to children being fat or diseased. For instance, in Table D-7 and D-9, the report lists the top ten food sources of energy among U.S. children and adolescents, aged 2-18 in 1991. These are milk, yeast bread, cakes/cookies/quick breads/donuts, beef, ready-to-eat cereal, carbonated soft drinks, cheese, potato chips/corn chips/popcorn, sugars/syrups/jams, poultry. Yet the report provides not a single bit of evidence which causally links any of these foods with cardiovascular disease, cancer, diabetes, or premature mortality.

²³²IOM Report at (ES-7).

²³³IOM Report at 2-19.

Second the lack of causality is apparent when it addresses the crucial question of whether food advertising compels children to eat certain foods. For instance, at 5-35, the IOM Report evaluates the evidence about the crucial issue of whether TV food advertising causes children's diets. It reports 24 studies, *none* of which is statistically significant with high causal validity. Furthermore, at 5-37, the report looks at studies about whether TV food advertising causes children's diets by age group, namely younger children ages 2-5, older children ages 6-11, and teens ages 12-18 years. *None* of the studies is statistically significant with high causal validity. The report concludes from this evidence that "There is moderate evidence that television advertising influences the usual dietary intake of younger children ages 2-5 and weak evidence that it influences the usual dietary intake of older children ages 6-11. There is also weak evidence that it does not influence the usual dietary intake of teens ages 12-18 years."²³⁴ It is of course strange that the IOM Report speaks about weak evidence that advertising does not influence dietary intake of teens – given that negatives can't be established – rather than reporting that there is weak evidence that it does.

So even on the IOM Report's own terms there is no compelling causal evidence that food advertising causes the diets of young children, older children, or teens.

This leaves us with one group, children under two, for which the report produced no evidence of an advertising effect. In a 1996 review of the effects of food advertising on children's food choice produced for the UK's Ministry of Agriculture, Foods and Fisheries, Young et al. observed that children's food acceptance patterns and some eating preferences develop as infants, and as such predate the influence of parents, peers and advertising. He writes that,

... the infant brings to the eating situation a preference for the sweet taste and an innate ability to learn the relationship between consuming specific foods and their energy value, both of which appear to be highly adaptive. These mechanisms contribute to food acceptance patterns early in the child's development and can explain, in part, the tendency for children to like foods which are sweet, high calorie and high in fat. Clearly these influences occur early

²³⁴IOM Report at 5-38.

in the child's development before any input from outside influences including parents, peers, and the wider social context such as the media.²³⁵

The IOM Report appears to accept Young's conclusions since it cites the same sources he uses and acknowledges at three to six a "biological predisposition to prefer sweet, high fat, and salty foods." Thus, whatever the claims about advertising influencing children's food preferences and behaviors, it is impossible for advertising to create children's basic food preferences for sweet, high fat and salty foods. If children prefer foods that are sweet, high in fat and salty it is not because these preferences have been created by advertising.

Gathering together the evidence about whether food advertising causes children's diets and their obesity from the report, we find:

- For children under age 2 there is no evidence that advertising causes their diet. Indeed, children's food preferences for sweet, high calorie and high fat foods appear to be in some sense innate and certainly predate their exposure to advertising. The report is silent about the implications of these pre-advertising preferences for the claim that advertising creates children's diets and obesity.
- For children aged 2-5 there is no evidence that demonstrates that advertising causes these children's diets.
- For children aged 6-11 there is no evidence that demonstrates that advertising causes these children's diets.
- For adolescents aged 12-18 there is no evidence that demonstrates that advertising causes these children's diets.
- For children and adolescents aged 2-18 there is no evidence that demonstrates that advertising causes adiposity.

The Hastings Review and the IOM Report both then share two quite fatal problems in establishing a causal link between advertising and

²³⁵B. Young, *The Role of Television Advertising in CHILDREN'S FOOD CHOICE*, London Ministry of Agriculture, Foods and Fisheries (1996), at 19.

children being overweight, obese and diseased. First, neither demonstrates that the main foods which children now eat are the cause of obesity or diseases such as cardiovascular disease, cancer or diabetes. Second, neither provides studies about the supposed connection between advertising and children's diets and obesity that have properly controlled for the multiple risk factors for obesity. Thus neither can properly draw a causal conclusion about the relationship between advertising, children's diets, and obesity.

4. The Ofcom Report

The Ofcom Report is the result of a research project carried out by Ofcom in response to the Secretary for Culture, Media and Sport's request that the agency consider "targeted and proportionate proposals for strengthening the existing code on TV advertising in respect of food and drink to children."²³⁶ However, unlike the Hastings and the IOM reports, the Ofcom Report attempts to assess the influence of food advertising within the context of the other influences on children's food preferences.

For instance, the Ofcom Report notes that "there is a general consensus of opinion that food preference, consumption and behavior are multi-determined."²³⁷ The primary factors which help to determine children's food preferences, according to the Ofcom Report, are:

- Psychosocial factors (e.g. food preferences, meanings of food, food knowledge)
- Biological Factors (e.g. heredity, hunger and gender)
- Behavioral Factors (e.g. time and convenience, meal patterns, dieting)
- Family (e.g. income, working status of mother, family eating patterns, parental weight, diet and knowledge)
- Friends (e.g. conformity, norms and peer networks)
- Schools (e.g. school meals, sponsorships, vending machines)
- Commercial Sites (e.g. fast food restaurants, stores)
- Consumerism (youth market and pester power)
- Media (food promotion, including television advertising)

²³⁶*Childhood Obesity- Food Advertising in Context*, supra note 141, at 4.

²³⁷*Id.* at 10.

While this list is not complete, it marks a sharp break with the approach taken by the Hastings and IOM reports in that it begins by accepting that there are multi-factoral influences on children's food preferences, and that advertising is, at best, simply one influence and not the dominant or even primary influence.

One can see how this approach produces a much more balanced picture of the influences on children's diets in the Report's discussion of how what it calls the food culture of UK children develops. According to the report, the current food culture is a product of at least nine distinct trends:

1. a steady rise in incomes
2. longer working hours
3. increase in the numbers of working mothers
4. increase in the numbers of time-poor/cash-rich parents
5. increase in consumption of pre-prepared convenience foods
6. increase in out-of-home eating
7. trend toward a 'snacking/grazing culture' amongst children
8. increase in children-only' meals
9. increasing influence of children over their food choice

When these nine trends are added to four trends in children's activity levels:

10. increase in media ownership in the home and in children's rooms
11. increase in parents' fears for the safety of children outdoors
12. increase in sedentary indoor pastimes (watching TV, playing computer games)
13. decrease in physical activity amongst children²³⁸

then one begins to see how these significant trends affect children's diets.

But the Ofcom Report also devotes considerable attention to the role of parents' beliefs about themselves and their health and diets as critical factors in shaping what children eat. For example, using data from quantitative surveys (1000 interviews with parents and their children) commissioned by Ofcom, the report looked at parents' beliefs about their

²³⁸*Id.* at 47.

own health using the common social psychological measure known as Locus of Control. Locus of Control, which is widely used in health research, measures the degree to which an individual believes in chance/fate with the value the individual places on health and the degree to which they assume responsibility for their own health and produces a composite score which distinguishes those whose locus of control is internal from those whose locus of control is external. Individuals with internal locus of control believe that they are responsible for their health, whilst those with external locus of control see their health as the outcome of powerful others and/or fate.

These results were then correlated with data about parent's eating habits, attitudes to health, and media consumption to produce three groups: light consumers, healthy consumers and heavy consumers. Parents who were termed light consumers have an internal locus of control, taking responsibility for their health and tend to eat and serve their families more vegetables and fruits than other groups. However, they also tend to eat high levels of foods with fat, salt and sugar. Parents who were termed healthy consumers have a slightly lower internal locus of control and attach a strong importance to healthy eating. Their children are less likely to eat snack foods other than soft drinks and they are also more active than children in other groups and have lower BMI's. Parents who were termed heavy consumers have external locus of control and believe that factors outside of their control determine their health. They attach less importance to healthy eating, "show unhealthy eating patterns in that they are higher than the other groups in their mention of confectionery foods and fast foods"²³⁹ and report that their children are less active than those in the other two groups with higher BMI scores.

While the limited sample makes it impossible to draw any definitive conclusions from this data, it is interesting that Ofcom's research found that a majority of parents (mothers were seen to be the parent most responsible for food) tended toward external locus of control in which healthy eating were not seen as their responsibility and in which they had little interest or confidence in influencing their children's food choices. At a population level this has clear implications for what children eat as it suggests that the parent's role in shaping children's diets has been effectively abdicated by many parents. Despite this, the Ofcom research clearly shows that parents see parents, not government, the media or

²³⁹*Id.* at 92.

broadcasters as having the primary responsibility for improving children's diets. As the report notes "People see parents as primarily responsible for improving children's diet. School and food manufacturers are also seen to play an important role. The role of government, the media, supermarkets and broadcasters is not perceived to be as important as these three."²⁴⁰

But what about advertising as an influence? Only after having carefully examined the influences of the "food culture" of families and the other trends which have substantially reduced children's physical activity levels, does the Ofcom Report turn its attention to the influence that advertising might have on children's food choices. Unlike the hyped conclusions of the Hastings and IOM reports (as opposed to what their evidence actually suggests) the Ofcom Report restricts itself to conclusions that follow from the evidence. These conclusions are that "TV advertising has a modest direct effect on children's food choices." While it might have indirect effects that are larger, it is difficult to determine what these are and what their size might be. This modest effect, moreover, needs to be placed in the context of the other factors that influence children's eating decisions. As the Ofcom Report notes "For example, to parent and child alike, the child's own taste preferences are paramount and price and familiarity are also important. Peer pressure... is also a notable influence on food choice for children. Parents are influenced by the healthiness of the products, although when actually serving food or drink, convenience is a more powerful motivator."²⁴¹ Moreover, this modest effect is found, according to the Ofcom's own quantitative survey, in obese children who noted that "Food promotion generally, and television advertising in particular... play a very small role in their decisions."²⁴²

When attempting to quantify the extent of this "modest" effect, the Ofcom Report cites research that suggests that food advertising "in the broad array of factors that influence eating habits, independently contributes to 2% of the variance explained,"²⁴³ hardly a significant contribution by any measure. Moreover, it is unclear from the literature precisely what weight should even be attached even to this effect as

²⁴⁰*Id.* at 23.

²⁴¹*Id.* at 114.

²⁴²*Id.* at 21.

²⁴³*Id.* at 101.

“many studies are designed to identify correlations not causes” and are thus useless at answering the key question about the effect of advertising. Again, as the report notes many of the studies have “small samples, simple measures, paucity of longitudinal designs and few replications.”²⁴⁴ Most crucially, however, is the fact that the research is unable to offer any evidence that demonstrates that advertising has a dietary impact in terms of food categories as opposed to brand impact.

What is most striking then about the Ofcom Report, when compared to the APA, Hastings and IOM reports, is its objective and non-ideological character. Looking at much the same evidence as the other reports, it appears to be guided by what the evidence suggests, as opposed to some a priori position on advertising. It thus finds that advertising’s influence on children’s food choices is much more modest than the Hastings and IOM reports whose findings are based more on their author’s prejudices than on the evidentiary record.

IV.

THE FOUNDATION FOR A DIFFERENT STORY

This Monograph has argued that the scientific evidence, when considered in its totality, does not support the view that advertising to children is inherently manipulative because they are unable to understand its persuasive intent, or that advertising is a cause of young people’s smoking, drinking or obesity. This is not to say that advertising has no effect on the purchase and consumption behavior of children and young people, for there is substantial evidence that it routinely affects decisions at the brand level. Indeed, an alternative and much more plausible picture of children’s marketplace behavior portrays it, as does the Ofcom Report, as the result of multiple influences, but with no single influence causing a particular choice. For instance, in the case of food choices, there is evidence that some preferences are innate, while many are a product of parental, peer, cultural and commercial influences, including branded advertising.

²⁴⁴*Id.* at 100.

However, let's assume, for the moment, that this picture is in fact wrong, and that advertising is highly effective not in getting young people to drink or smoke but in shaping the diets of children, in part because they are no match for its forceful and manipulative character. Does conceding this mean that advertising restrictions or bans are necessary as the critics of food advertising argue? We would suggest that this is not the case. Even if the critics of advertising to children are correct in their claims about the power of advertising, their policy prescription does not necessarily follow. This is because there are at least two viable alternatives to advertising restrictions and bans.

First let us consider the role of parents in terms of the effect of advertising. In Goldstein's model, for instance, there were four steps in the causative process of advertising: 1) Children see advertisements; 2) those children cannot understand the manipulative nature of the advertisement and form desires for the things advertised; 3) they demand those products from their parents; 4) those demands result in parent-child conflict.

Children, particularly those young enough to supposedly not understand what advertisements are about, do not purchase their own food. For advertising's effects to work, there must be parental acquiescence to the child's food request. As Buckingham observes "Ultimately, children's power as consumers is very limited: at least at this age, their earned income is generally nonexistent or minimal. Their spending power depends primarily on their ability to extract money from their parents – and in this respect, the 'problem' of television advertising is perhaps primarily a problem for *parents*...."²⁴⁵ In other words, one of the answers to the alleged affect of food advertising, is to be found in the parent's role of food gatekeeper. Advertising can only have an effect on a child's food choices if the parent allows it to have an effect. But as the Ofcom report showed, a majority of parents have abdicated this responsibility through their belief that healthy eating is the responsibility of someone else.

Second, in addition to the decisive role of parents in moderating the effects of advertising, there are also ways in which education in advertising literacy can counter advertising effects. Some, like the APA Report, tend to be unfairly dismissive of advertising and media literacy.

²⁴⁵Buckingham, *supra* note 38, at 253.

As the authors note “there is little evidence that media literacy interventions can effectively counteract the impact of advertising on children of any age, much less the younger ones who are most vulnerable to its influence.”²⁴⁶ But this is certainly not the view of most experts in media literacy. For example, in a recent large scale experimental study of the effectiveness of media literacy educational programs, Hobbs and Frost²⁴⁷ found that a curriculum that involved children analyzing various types of media messages could improve children’s media literacy skills. Indeed, there is considerable agreement amongst many of those who study children and the media, that children’s advertising literacy can be significantly enhanced.²⁴⁸ For instance, there is some evidence that young children benefit the most from advertising education. In two studies that explore the role of advertising education, Peterson and Peterson and Lewis found that young children as young as six can learn to discriminate commercials from programs and also understand something about the selling techniques used in advertisements.²⁴⁹

In an experiment involving seven and nine year old children in Los Angeles, Feshbach et al.²⁵⁰ were able to improve children’s understanding of how advertisements portray products as desirable such that after one week children began to find advertisements less credible and the products they advertised less attractive. Nor is the role of advertising education one that need be left entirely to structured programs at school. Singer et al.,²⁵¹ who studied children in kindergarten and first grade over a two year period, found that children who discussed advertisements at home with their parents had a better comprehension of the purpose of advertisements than their peers who did not. Studies have also shown that the children and adolescents who speak with their parents about advertisements and consumption have a better

²⁴⁶APA Report at 21.

²⁴⁷Hobbs and Frost, *Measuring the Acquisition of Media-literacy Skills*, READING RES. QUARTERLY 38: 330-356 (2003).

²⁴⁸Riecken and Yavas, *Children’s General, Product and Brand-specific Attitudes Towards Television Commercials*, IJA 9: 136-148 (1990).

²⁴⁹*Supra* note 34.

²⁵⁰S. Feshbach et al., *Enhancing Children’s Discrimination in Response to Television Advertising: The Effects of Psycho Education Trainings in Two Elementary School Groups*, DEVELOPMENTAL REV. 2: 3-12 (1982).

²⁵¹Singer et al., *Family Mediation and Children’s Cognition, Aggression and Comprehension of Television: A Longitudinal Study*, J. OF APPLIED DEVELOPMENTAL PSYCHOLOGY 9: 329-347 (1988).

understanding of the consumption process and are more discriminating than those who do not.²⁵² Additionally, some work has found that parents who critically discuss commercials with their children can reduce their children's desire for an advertised product.²⁵³ All of this is particularly important when placed against the findings of the Ofcom Report which found that "few parents make any attempt to mediate the impact of television advertising on their children. Just under half of parents (44%) say they 'never' talk about advertising to their children and a further 15% say they do so 'hardly ever.' Those who do talk about them are most likely to do so only 'occasionally,' and very few say they ever discuss the credibility of the advert or its commercial motivation."²⁵⁴

Thus, even if one were to concede that food advertising might affect the diet of children, parents have the power to counter this effect. Additionally, education in advertising literacy and parental interaction also has the ability to provide children with the knowledge and skills to understand advertising's persuasive character.

CONCLUSION

This Monograph has argued that over the last forty years it has become an ideological "fact" for much of the chattering class that advertising is in a variety of senses harmful. However, because of its protected constitutional status, direct assaults on advertising's harms are unlikely to be successful. This has meant that the opponents of advertising have fashioned a different strategy in which they have claimed that advertising to children and adolescents is justifiably restricted or banned on paternalistic grounds, namely the need to protect children and adolescents from its harms. These harms center on the fact that they fail to understand advertising's persuasive character and advertising causes them to engage in unhealthy behaviors such as harmful eating and underage drinking. According to the opponents of advertising, these harms are not open to serious question, as there is now a "scientific consensus" that advertising to most children and some adolescents is not only deceptive and thus inherently unfair, but causes

²⁵²R. Moore and L. Stephens, *Some Communication and Demographic Determinants of Adolescent Consumer Learnings*, J. OF COMM. 29: 197-201 (1975).

²⁵³V. Prasad et al., *Mother vs. Commercial*, J. OF COMM. 28: 91-96 (1978).

²⁵⁴Ofcom Report at 18.

them to eat inappropriately as well as drink alcoholic beverages and smoke.

The Monograph has also argued that when the full range of evidence about advertising and children and adolescents is carefully examined, neither of these claims is well-supported. Indeed, we have shown that the reports produced in support of these claims are significantly flawed in that they present a highly selective portion of the evidence, misinterpret or misrepresent certain aspects of the evidence, and draw conclusions which are unwarranted. There is considerable empirical evidence that suggests that young children can distinguish advertising from programming. Additionally, there is considerable research evidence about the cognitive capacities of young children that suggests that they possess the ability to understand what advertising is about, that is to say its persuasive intent.

Finally, we have argued that the claim that advertising causes children to engage in unhealthy behaviors, whether eating or drinking alcoholic beverages is not supported by the full range of evidence, including econometric, experimental and epidemiological studies. At the most this evidence suggests only a very modest effect of advertising on, for instance, children's food preferences. At the least this evidence suggests that advertising influences only brand as opposed to category decisions. In neither case is there a compelling justification for restricting or banning advertising to children.

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