

Food and Health: Expanding the Agenda for Health Psychology

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Abstract

In this article I consider the changing context and constitution of food in contemporary society, and the variety of ways it is bound up in health, identity and social relations. In particular, I briefly discuss the position of food in health, illness, embodiment, and the ways that food is becoming increasingly medicalized and politicized. I suggest that the treatment of food in health psychology research has frequently been overly simplistic, and argue that we need to take greater account of the complexity of food and its intricate relations to health and illness in our research if we are to investigate this topic comprehensively, and seek to contribute to better understandings and outcomes for people.

Keywords

food, health, healthy eating, illness, medicalization, social change

FOOD, AND its relation to health, has not been a major focus of interest for health psychologists, although there is a small and rapidly developing body of research and writing on this topic (e.g. see recent texts by Conner & Armitage, 2002; Ogden, 2003; Smith, 2002). Much of the research in this field has focused on eating as a health behaviour, with a view to understanding dietary choices (e.g. Conner, Norman, & Bell, 2002; Steptoe & Wardle, 1999) and the promotion of healthy eating (e.g. Glanz, 1999; Leganger & Kraft, 2003), or on dietary restraint or control (e.g. Garcia & Mann, 2003; Woods, Schwartz, Baskin, & Seeley, 2000). Alongside this, there is a considerable amount of research and theory addressing disordered eating (e.g. Hepworth, 1999; Malson, 1998; Ogden, 2003) although little of this research addresses the physical health consequences of these eating practices.

Much of the work in this field tends to treat food (and diet) as a rather simple and fixed object. Health promotional work in this area also tends to assume that increasing knowledge of what constitutes a healthy diet is essentially agreed and uncomplicated (Coveney, 2003). In contrast, there has been little psychological research into the meanings of food and diet for health, or into how food is constructed, understood and contextualized, especially in relation to health. In this article, I seek to extend the scope of our understandings of food and to expand the agenda for our research into food and health. More specifically, I discuss some of the ways in which food is inter-woven into daily life and the contexts within which food can be understood. I argue for the consideration of food as a complex entity, replete with contradictions and oppositions, full of confusions and a potential source of anxiety, particularly in relation to health. In doing so, I mean to establish a broader agenda for health psychology research into food and health.

Locating food

An obvious and immediate approach to food is to conceptualize it as necessary for life, as fuel for living—viewing the body as a machine that requires fuel to keep running. However, in the context of health, food is much more complex than this—not just any of fuel will do, but

‘proper’ fuel is required, fuel which is correctly constituted and balanced to optimize performance. Again, for many purposes this view is too simple. We are surrounded by food—it pervades our lives from almost any perspective we care to consider. Food is a primary feature of everyday life—we must find, purchase or prepare food and eat every day to stay healthy and alive; food permeates our relationships—we eat with others, and in particular and symbolic ways; food infiltrates our language—the images and metaphors of food surround us (I’m fed up with you, you make me sick, etc.); food reflects our position and status—whether we eat minced mutton, rabbit ragout or pasta primavera; food pervades popular culture—evidenced by the large number of cooking programmes on television and the high ratings they receive, as well as the ubiquitous cooking columns, recipes and restaurant reviews in magazines and newspapers (leading many aptly to label these representations of food in popular culture as food pornography or ‘gastro-porn’). Health is also in focus here, as all of these sites for food are heavily permeated by messages of healthy eating and a proper diet, which need to be understood and negotiated in their social context. Food can be differently valenced, providing us with pleasure and fulfilment but simultaneously offering anxieties and fears; food can offer health and life but it can also bring illness and death. Hence food is not a simple entity, but something that is constructed, negotiated, socialized and contextualized. It is constituted in our social practices and open to negotiation and change. As Rozin, Fischler, Imada, Sarubin and Wrznesniewski have argued ‘For human beings, food is a critical contributor to physical well being, a major source of pleasure, worry and stress, a major occupant of waking time, and, across the world, the single greatest category of expenditure’ (1999, p. 163).

There have certainly been enormous changes in food—in variety, availability, patterns of consumption, preferences and, consequently, in meanings—across the last century, at least in modern western societies. As one example, in the UK whole milk sales made up 97 per cent of the market in 1983 but only 56 per cent of sales by 1991, with the gap being filled by low-fat milk (Lupton, 1996). The extracted butterfat was not discarded however, but diverted into a new

range of upmarket cheeses and pre-prepared meals and desserts (Murcott, 2000). Meat, eggs and butter all show similar trends to whole milk across western countries. For example, Australians in the late 1930s ate 6 times as much butter per capita as they did in the early 1990s, and today they eat 16 times as much margarine as they did 50 years ago (Lupton, 1996). These examples could be extended considerably but illustrate the changes that have occurred in food and diets. These changes are a consequence of a number of inter-related issues and processes.

One of these has been industrialization and the consequent development of manufacturing technologies related to food products (see Welch & Mitchell, 2000). The invention of a process for coating iron with a thin layer of tin was one such development, leading to the widespread availability of preserved (tinned) foods. The invention of refrigeration and chilling processes has similarly contributed to the widespread availability of foodstuffs at considerable distances from their source of manufacture. More recent developments in technology have led to major changes in the processing of foods, allowing the extraction and re-combination of ingredients, which can be blended, extruded or heat processed to produce such things as cereal products like puffed wheat or foods like potato crisps and condensed milk. One of the most striking examples of this must be margarine, a product created entirely by scientists and food technologists. Another illustration of the changing nature of food can be seen from the number of different flavouring compounds used in food, which has expanded from around 100 in 1900 to around 500 in the 1960s to more than 4500 today (Millstone & Lang, 2003). Designed food is widely available and developing further every day, with the most recent innovation being 'techno-foods' (Nestle, 2002) or 'functional foods'—foods that have been modified by the addition of health-promoting components (see Heasman & Mellentin, 2001; Ovesen, 1999). More current technological change involves the genetic modification of food, a process that has been especially controversial (e.g. see Fortin & Rentin, 2003; Goodyear-Smith, 2001; Scully, 2003).

These changes have been facilitated by the development of nutrition as a science across the century (see Coveney, 1999). Vitamins (vital

amines) were discovered in the early 1900s, but their relationship to the prevention of nutritional deficiency diseases was quickly taken up, and changed nutritional thinking (Apple, 1996). Consequently fruits and vegetables changed their status from inessential delicacies to essential foods for good health, people were urged to seek out healthy foods for their specific nutrient components, and the term 'protective foods' was coined. The recent evolution of techno-foods or functional foods, designed specifically to enhance health and well-being, relies heavily on arguments and understandings from nutritional science for their development and promotion. The development of scientific nutrition also opened the way for the state to intervene in the regulation and surveillance of food and diet. The need for control, protection and regulation was developed to ensure the delivery of 'good' and 'safe' food by suppliers and rapidly extended to the improvement of the health of the population. This process was facilitated enormously by war. For example, when Britain discovered in 1917 that 41 per cent of men assessed for military service failed on health grounds, the quality of nutritional intake was quickly implicated. The period around the Second World War was even more important in provoking government involvement in food rationing and control, and enhanced state intervention in food supply and quality control (see Beardsworth & Keil, 1997; Mitchell, 1999). Governments everywhere, supported by nutritional findings and a concern for the health of the population at large, have not only set out regulatory frameworks for the manufacture and control of food products, but they have also adopted nutritional guidelines and embarked on dietary promotion campaigns for the benefit of their citizens. A major concern driving this currently is the increasing obesity of western populations. In England, for example, in 1994 13 per cent of men and 16 per cent of women were considered obese (with a BMI over 30) (Arterburn & Noël, 2001). In the USA, prevalence of overweight people (adults aged 20–74, age-adjusted estimates, BMI over 25) increased from 47.4 per cent in 1980 to 56 per cent in 1994 to 64.5 per cent in 2000. The increase in obesity (BMI 30 and over) for the same periods was from 15 to 23 to 31 per cent (National Center for Health Statistics, 2002). This concern is

frequently reduced rather simplistically to a view that people are not eating a 'proper' diet and that intervention is justified to 'educate' people about healthy diets and consequently reduce national health budgets. It is easy to overlook that 'this healthy-eating nutrition agenda—eating more complex carbohydrates while reducing intake of fats (particularly animal fats) and salt, and sugar—is just two decades old' (Heasman & Mellentin, 2001, p. 3).

Government regulation has also extended to control another important process—the marketing of food. Marketers have been quick to capitalize on the opportunities surrounding new developments in food products. In the USA, hard on the heels of the discovery of vitamins, foods supplemented with additional vitamins were quickly marketed, and protective foods were promoted. With the recent rise of functional foods and dietary and nutritional supplements, governments today have been forced to attempt to define what constitutes food—not a simple task in today's world of food manufacture—and to regulate how it must be labelled. Nutritional science is drawn on heavily today to document, not only the constituent ingredients but also the nutritive value of products. A further pressure for change has been the development of fast food; it has been estimated that 'more than half of what North Americans eat comes from fast food chains' (Conner & Armitage, 2002, p. 123), and that 'each day one in five Americans eats in a fast food restaurant' (Millstone & Lang, 2003, p. 95). The development and consumption of fast food has led to substantial debate about changing dietary practices and consequent health effects. Other pressures around food marketing have been related to the globalization and standardization of food products—Ritzer's (1993) McDonaldization thesis. Standardization is supposed to lead to predictability and familiarity, and consequently to consumer confidence and safety. However, as we have seen with reactions to fast food and fast food chains like McDonald's, this has not always been the case.

All of these pressures and influences have changed both the nature and the meanings of food today, but these are also bound up importantly in the ways that food is socially located. Food serves a multitude of social functions. To a considerable extent, food is eaten in a family

situation, giving rise to a range of issues, such as what constitutes a 'proper' meal?—according to Charles and Kerr (1988) it must be cooked (not raw), hot (not cold), hand-made (not brought in) and eaten together. Food plays a role in constituting national identities—Mitchell (1999) argues that the British main meal continues to retain its identity even though the types of food consumed in Britain have changed over the last few decades. The meal serves an important role in constituting the 'family' and the 'home' (not to mention the gendered nature of meal production, the construction of the 'mother' and the production of the kitchen as a feminine place; see, for example, Silva, 2000). Food in the family setting also plays a central role of control and regulation. Family meals constitute a site for the civilization of children, and as Lupton (1996) argues, for developing social virtues—of such things as control and eating in moderation. We know these rules well ('you can't have any pudding if you won't eat your vegetables') and can sympathize with the research participant who remembered his father as a vegetable fascist (Lupton, 1994). However, the idealized nuclear family eating the idealized main meal may be less relevant today. Eating practices are changing, and Warde and Hetherington (1994) report that 34 per cent of households in the UK buy takeaway meals at least once a week, and 12 per cent dine out at restaurants once a week. The pre-prepared frozen meal is becoming the everyday staple for US families (although this cannot be served on special occasions or to guests). Guthrie, Lin and Frazao (2002) report that in the USA between 1977–1978 and 1994–1996 the proportion of calories obtained from the consumption of food prepared away from home increased from 18 to 32 per cent. As might be expected, 'away' food was higher in total fat and saturated fat, and contained less dietary fibre. Technology, and the widespread availability of ready-made, pre-cooked meals, is changing household food production and eating practices. A large survey in Britain in 1995 (cited in Bell & Valentine, 1997) found that one-quarter of respondents almost always ate their evening meal in front of television, and many household meals are constructed around the timing of television programmes. The microwave has similarly changed habits, and particularly serves as a means of liberating

teenagers from eating with their families, providing them with options to eat what and when they like, and also with independence from parental control and surveillance. Chapman and Maclean (1993) found that teenagers regarded 'healthy' food as associated with the home and the consumption of 'junk' food served to establish independence, demonstrating one way in which food is bound up in identity. Brannen, Dodd, Oakley and Storey (1994) report that one-third of their young participants rarely ate with their parents and almost three-quarters regularly bought or cooked their own (pre-prepared) meals. There are other interesting social practices around food, such as its role in celebrations and transitions (birthdays, weddings, funerals, etc.), and its function as a class and gender identifier. Food itself is gendered, with some foods regarded as masculine (red meat) and others as feminine (fish and chicken) (Beardsworth & Keil, 1997). Males and females view food differently and eat differently (Beardsworth, Bryman, Keil, Goode, Haslam, & Lancashire, 2002). Men report eating more red meat, processed meats, crisps and fried foods, and less fresh fruit and fresh vegetables than women. Women report more familiarity with dietary guidelines for healthy eating, and not surprisingly, were found to have more involvement in deciding about food purchase, food shopping and food preparation, as well as having better food preparation skills (Beardsworth et al., 2002).

Surrounding all this is the salience of health in western society today. Crawford (1980) identified 'healthism' as a feature of modern society in the 1980s and health has continued to be a major preoccupation of people and governments. With the rise of neo-liberalism, the creation of the health consumer and the promotion of personal responsibility for health have characterized contemporary health concerns. Food manufacturers and marketers are conscious of this trend (see Heasman & Mellentin, 2001) and are constantly developing and promoting new products to take advantage of it. Since food is salient for health, and vice versa, it is not surprising that food and health have become elided to a considerable degree in contemporary society. Next, I examine some of the various ways through which this has occurred.

Food and staying healthy

Food is intimately connected with health, and people are certainly aware of the need to eat 'proper' food for health, to have a 'proper' diet for health and to ensure that they have 'proper' nutrition for health. In many Asian and South American cultures the relation between food and health is strongly marked, most obviously but not only in terms of a 'hot-cold' dimension. Some foods (and some ailments) are considered as 'hot' and others as 'cold'. This is a broad and somewhat variable classification that does not refer to temperature, and extends beyond foods to mark illnesses, remedies and even people. This classification is based on versions of humoral bodily function and balance (Koo, 1987; Lee, 1980; Manderson, 1987; Messer, 1987). In this system, in order to sustain one's health it is important to eat the right foods at the right times (either in relation to the season, or the symptoms experienced, or the emotional state of the person), and to ensure that hot foods are taken in periods of coolness and vice versa to balance bodily function. 'Traditional' Chinese medicine incorporates a highly developed, though variable, account of the nature and function of foods, centred around this hot-cold dimension (Koo, 1987; Lee, 1980) and their relevance to sustaining health and treating illness. Although these ideas are not part of 'modern' western thinking, there are considerable 'folk' understandings of food and health in western cultures, such as 'an apple a day keeps the doctor away' and 'feed a cold, starve a fever' (see, for example, Helman, 1978), and the prevailing notions of a 'balanced diet' and 'natural' foods as requirements for health. People are also active in instituting and following a variety of eating practices and diets thought to sustain their health. Many specific diets are widely discussed and promoted in the media. Some of these, such as the ubiquitous Mediterranean diet, receive qualified support from scientific research. For example, Trichopoulou, Costacou, Bamia and Trichopoulou (2003) report that adherence to a traditional Mediterranean diet is associated with a reduction in mortality, although specific components of the diet were not found to be associated with mortality reduction. Recently, many people have begun to engage in dietary supplementation, most commonly with vitamins

and minerals, and frequently for health reasons. Rates of dietary supplementation are surprisingly high, with findings such as that 35–55 per cent of US adults aged 30 years or older report supplement use within the last month (Ervin, Wright, & Kennedy-Stevenson, 1999). The benefits of supplementation remain unclear, and as Foote, Murphy, Wilkens, Hankin, Henderson and Kolonel (2003) found, people who take dietary supplements regularly have healthier lifestyles (engage in more exercise, are less likely to smoke) and better dietary practices (lower fat, and higher fruit and fibre intakes) than people who do not take supplements, making the direct benefits of supplementation difficult to disentangle.

In practice, most contemporary western understandings of food and its relation to health have their basis in 'rational facts' drawn from scientific nutrition. Findings from nutritional science are drawn on by governments to develop and promote nutritional and dietary guidelines for their populations. These guidelines require people to choose a diet 'rich in grain products, vegetables and fruits', 'low in total fat, saturated fat, and cholesterol', 'moderate in sugars' and 'moderate in salt and sodium' (UK Dietary Guidelines, 2002). However, even relatively similar countries, such as the UK, New Zealand and Australia, vary somewhat in their recommendations, and these guidelines change irregularly, making it difficult for the concerned eater to understand and follow them. As one example of this, following considerable epidemiological research, increased intake of dietary fibre was generally considered as protective against colorectal cancer, although the evidence in favour of this was somewhat mixed. However, several recent large randomized controlled trials on this issue found no effects (Fuchs, Giovannucci, Colditz, Hunter, Stampfer, Rosner, Speizer, & Willett, 1999; Pietinen, Malila, Virtanen, Hartman, Tangrea, Albanes, & Virtamo, 1999; Terry, Giovannucci, Michels, Bergkvist, Hansen, Holmberg, & Wolk, 2001), which led to reconsideration and some change in recommendations around this issue. More recently again, two further large multi-centre studies found substantial effects of dietary fibre intake (Bingham, Day, Luben, Ferrari, Slimani et al. 2003; Peters, Sinha, Chatterjee, Subar, Ziegler et al., 2003), promoting once again the

value of fibre intake as cancer-protective. In commenting on these conflicting results, Ferguson and Harris (2003) state that resolving this debate, like the nature of dietary fibre itself, is far from simple. They note that the conflicting results may be due to differences in the type of fibre consumed, the amount of fibre consumed, the way in which fibre intake was analysed or that fibre may be merely a marker for other active plant food components in the diet. Regardless of this, they conclude that 'eating a diet rich in plant foods, in the form of fruit, vegetables, and whole grain cereals probably remains the best option for reducing the risk of colon cancer and for more general health protection' (2003, p. 1488).

Perhaps the most widely known and promoted dietary guidelines are constituted by the food pyramid and its derivatives like the '5+ a day' campaigns. However, once again, there are pyramids and pyramids, with different versions proposed for children, vegetarians, the Mediterranean diet, the Asian diet and so on. As if these are not confusing enough for eaters and consumers, it is now being suggested that the pyramid requires substantial modification in light of recent scientific findings because its benefits are counterbalanced by its harms. Willett and Stampfer (2003) argue that the pyramid was developed with over-simplified messages about fats and carbohydrates, a failure to promote important dietary differences between types of proteins and an over-promotion of dairy products. Their research group has suggested a new version of the pyramid, which distinguishes between 'healthy fats' (liquid vegetable oils) and 'healthy carbohydrates' (whole grain foods), and suggesting that these should comprise the bulk of the diet. Trans-fats (hydrogenated vegetable oils, such as solid oils in margarine) are excluded altogether. The recommendations also suggest consuming abundant quantities of fruit and vegetables, and moderate quantities of 'healthy protein' (nuts, legumes, fish, poultry and eggs) while limiting dairy products and minimizing the consumption of red meat, butter, refined grains, sugar and potatoes (which they suggest should not be considered as part of the vegetable category). Nestle (2002) provides an excellent discussion of these changes and the involvement of vested industry interests in their production,

documenting how they are essentially political and much more than merely guidelines promoted for public health.

The list of problematic dietary recommendation examples could be extended (debates around eggs, coffee, alcohol, antioxidants, cholesterol, etc.), but the point to be drawn is that varying messages like these function to problematize healthy eating for people. Reading newspaper headlines that ask ‘Fibre. Coffee. Margarine. Whatever. Health advice has never seemed more confusing. Why can’t the so-called experts make up their minds?’ and ‘Would you like a contradiction with your coffee?’ (Guttman, 1999) does not reassure people that nutritional guidelines are secure and should be followed. Further, in much of the debate, we have an elision of food (the things we eat), diet (the total food consumed) and nutrition (the nutrient value of food consumed), which can be highly confusing for the eater. Individuals question how they can ever be responsible for their own healthy eating if scientists and nutritional experts cannot agree on what they should eat? People struggle to keep up with the latest scientific conclusions on these issues, leading nutritionists and health promotion workers to lament the loss of faith in science as a result. However, there is a larger concern for eaters here—how do dietary guidelines, potentially confusing and changeable as they are, become translated into food? People do not eat cholesterol, protein, fibre or antioxidants—they eat foods that contain quantities of these nutritional components and are required to become knowledgeable experts about this if they are to have a healthy diet. This leads to particular foods becoming targeted as ‘good’ or ‘bad’ for health (see, for example, Lupton, 1996). For example, some years ago, people were warned against eating too many eggs as these were considered to raise cholesterol levels. More recently, eggs have been rehabilitated as the debate around cholesterol has grown. Fats are especially problematic in this regard. Most guidelines tell us that we should avoid fat, but some guidelines tell us we should especially avoid saturated fat. Many imply that we should know all about saturated, unsaturated, polyunsaturated and trans-fats, not to mention the more recent entrants, liquid fats and Omega 3 and Omega 6 oils. The most recent

messages are that we should eat saturated and unsaturated fats in the ratio of about 1 to 3, and avoid trans-fats altogether. Once again, how do these messages get translated into food and meals? These issues are sources of concern and confusion for the person struggling to comply with a requirement to have a healthy diet (see Nestle, 2002; Rozin, Ashmore, & Markwith, 1996). Also, ingesting food has implications beyond the healthy diet, raising concerns about risks of illness, the morality of control and self-regulation and the constitution of the body.

Food and becoming ill

Food is not only ‘good’ and ‘bad’, it is also ‘safe’ and ‘unsafe’, ‘clean’ and ‘unclean’, ‘pure’ and ‘impure’. Food is not only a means of staying healthy, it is also a means of becoming ill. This reflects what Fischler (1988) has termed ‘the omnivore’s paradox’—because we need a varied diet to survive, Fischler suggested that there is a tension between our inclination to be innovative in what we eat and our need to be wary of unknown food as a source of danger. He proposed that this is resolved by the transformation of food from nature to culture—completed by culinary processes of preparation and cooking. Issues of food safety are highly salient for some groups in the population. For people with IgE-mediated food allergies, eating certain foods such as peanuts or specific seafoods, even in minute quantities, could cause their death through anaphylactic shock (see Crespo & Rodriguez, 2003). For others, eating products containing wheat, barley or rye may cause a severe allergic reaction resulting in skin complaints, vomiting and diarrhoea. For such people, food is a serious source of disturbance to their daily lives, requiring constant surveillance to ensure that anything they ingest does not contain these ingredients. Beyond allergic reactions to food, there are considerable numbers of people who report food hypersensitivity or intolerance of various kinds. Recent population surveys estimate between 12–20 per cent of adults experience food hypersensitivity (Crespo & Rodriguez, 2003). Daily concerns around food are also experienced by people suffering from chronic illnesses. People with insulin-dependent diabetes, for example, must carefully monitor the contents of their food intake at the same time as balancing total food

intake against insulin intake and exercise levels. For all these people food is much more than fuel—it pervades their lives, requiring them continually to monitor not only what they eat, but question what they are being offered by friends and acquaintances, potentially limiting where they can eat and who they eat with. Because food is essentially social, the potential for food to be unsafe operates to constrain social relations.

Food safety is a much more general concern than this however, as there are over 200 disease agents that can be transmitted in food or water (Millstone & Lang, 2003). Although not attributable wholly to food or eating, the incidence of infectious intestinal disease in the general population is high. For example, Wheeler, Sethi, Cowden, Wall, Rodrigues, Tompkins, Hudson and Roderick (1999) report that this disease occurs in 1 in 5 people each year in England, producing 9.4 million cases a year, and results in over 300 deaths and 35,000 hospital admissions annually in England and Wales. Trevejo, Courtney, Starr and Vugia (2003) investigated the epidemiology of *Salmonella* infections in California between 1990 and 1999, concluding that it was a costly disease with 56,660 reported cases, 11,102 hospitalizations and 74 deaths over the period, with estimated hospitalizations costs of US\$200 million.

Food scares provide another threat to health. The most major of these in recent times has been BSE or 'mad cow' disease, a condition affecting the brains of domestic cattle, which emerged in the 1980s. The scare relating to food (specifically beef) developed when a BSE-like disease, variant Creutzfeld-Jakob disease (vCJD) was identified in humans, and between 1995 and 2001, 104 deaths were attributed to this disease in the UK (Millstone & Lang, 2003). Britain has experienced a number of food scares over the last decade: besides the BSE episode, eggs were claimed to be contaminated with *Salmonella* and pre-prepared foods with *Listeria*, carcinogenic chemicals were found in soy sauce and the foot and mouth disease outbreak occurred. It has been suggested that, collectively, these have transformed the British population from a state of ambivalence about food safety to one of collective anxiety. Green, Draper and Dowler (2003) identify several reasons why eating has become risky and food

has come to be regarded as a contemporary source of risk. Not only does risk reside in ordinary and wholesome foods that we rely upon, but it is invisible to consumers and can only be detected by expert analysis. Managing such risk must therefore be given over to external agencies for regulation and monitoring, raising complex issues of trust for consumers, in food itself, in regulatory systems and in the quality of monitoring. Further, food risks, unlike many other types of risk, are always present and threaten everyone. They are also increased by scientific advances, which produce further risks (e.g. pesticide residues in food, or genetic modification of foods). As Green et al. conclude:

The management of risks from food involves the individual in complex assessments in which diverse sets of 'risks' must be balanced against other sets of benefits. We cannot choose to simply avoid all potential risks from foodstuffs. We must eat, and make individual decisions about what and where to purchase, how to prepare and cook and how to eat. These decisions are made against a background of uncertainty and conflicting advice, both expert and lay. (2003, p. 34)

In spite of this, however, Green et al. (2003) have shown that consumers' strategies for making their everyday choice of foods are characterized by confidence rather than anxiety. Their research showed that consumers applied contingent 'rules of thumb' to balance issues of preference, health, naturalness, economy, convenience and risk in complex ways, allowing them to routinize food choice and discount uncertainty. Also, although there is a considerable literature on risk, Knox (2000) notes how little of this was related to food risk until after the recent food scares, and also notes how the subsequent research has focused almost exclusively on explaining differences between lay and expert understanding of the risks involved. This is also the case with the debates that surround genetic modification of food (e.g. Scully, 2003), another source of perceived risk and potential anxiety for eaters. Moreover, these concerns are not simply about food safety and risk per se, but run deeper into concerns that reflect the adage 'we are what we eat'. BSE is particularly interesting in this regard because its transmission has

been attributed to feeding vegetarian animals their own body parts—in effect cannibalism, reflecting one of the deep-seated anxieties and taboos of western culture. As Visser comments:

Somewhere at the back of our minds, carefully walled off from ordinary consideration and discourse, lies the idea of cannibalism—that human beings might *become* food, and eaters of each other. Violence, after all, is necessary if any organism is to ingest another. Animals are murdered to produce meat; vegetables are torn up, peeled and chopped; most of what we eat is treated with fire; and chewing is designed remorselessly to finish what killing and cooking began. People naturally prefer that none of this should happen to them. Behind every rule of table etiquette lurks the determination of each person to be a diner, not a dish. (1991, p. 29, emphasis in original)

Food and the body

Concerns around the notion that we become what we eat positions food in a special way. Taking food into the body makes food part of the body—our bodies are open to being marked by what we eat. In particular, fat in food and fat bodies are conflated—eating fat makes us fat, being fat means we eat too much, or at least too much of the wrong food, and carries connotations of immorality, over-indulgence and lack of control (see Lupton, 1996; Ogden, 1992). Lupton discusses the ‘food/health/beauty triplex’, arguing that food, health and beauty are inter-related and inseparable, that the ‘appropriate diet produces a healthy body, which in turn is a slim, attractive, youthful, sexual body’ (1996, p. 137). The attainment of good health, perceived as a moral accomplishment, achieved with the aid of dietary and fitness technologies, marked on the outward appearance of the body, demonstrates the worthiness, control and discipline of the body’s owner. Food plays a central role in this process, as eating to protect the body against decay and supplementing diet to enhance bodily performance becomes more commonplace. Although this has commonly been a gendered process and largely focused on female bodies, males are increasingly caught up in the technologies of body management, including dieting and the surveillance of food

intake (see Bell & Valentine, 1997; Watson, 2000). In contrast to this, obesity and disordered eating (issues that have been widely addressed by health psychologists) are concerned with bodies viewed as unmanageable and out of control (see Lupton, 1996). As Lupton argues:

Controlling food intake is about containment, the accession of the will over the flesh, the mind over the emotions, the striving towards the idealized ‘civilized’ body. While these meanings around food, subjectivity and the body are evident in their most extreme form in people diagnosed with eating disorders, I would contend that they are a feature of most people’s relationship with food to a greater or lesser degree. Food is therefore a source of much guilt, frustration and anger. (1996, pp. 152–153)

Taking food into the body also raises issues of food as polluting, as clean or unclean. People whose religious or cultural beliefs lead them to see certain foods as unclean will feel disgusted at the thought of eating it (consider eating horse, rat, snake or dog, widely eaten in other cultures). People who accidentally ingest food they believe to be unclean may enjoy eating it, but may feel nauseous and vomit on learning what they have done. Rozin, Pelchat and Fallon (1986) report that most people would not eat a favourite soup if it were stirred with a brand-new fly swatter. Disgust and repulsion provide an uneasy tension with pleasure and taste when it comes to food; and many foods—oysters, partly cooked whites of eggs, skin on heated milk, tofu, squid and moulds on cheeses—can readily provoke unease and avoidance. Lupton (1996) links the fear of pollution to contemporary ideological notions of cleanliness and argues that potential pollutants are a threat to the social order, commenting that:

In this conceptualisation, the body functions as a symbol of broader social relations. The body is understood . . . as a system with potentially vulnerable points of entry that must be guarded. As this implies, to taking food—any kind of food—is to risk the integrity of the self by threatening pollution . . . the sticky and the slimy as substances/sensations that particularly threaten bodily integrity because of their ambiguity, their half-life between solids and

fluids, the threat they pose of incorporating the self and dissolving boundaries. (1996, p. 114)

However, there can be good reasons to eat things that we may not like—medicine is good for you even though it may not be pleasant to take.

Food and medicine

The relation between food and medicine is an increasingly blurred boundary, reflecting the medicalization of everyday life (Chamberlain, 2002), and an arena that is becoming increasingly problematic for eaters striving to eat a 'good' diet. The medicalization of food can be identified in a number of different developments. One such development is total meal replacement products ('breakfast in a box'), which are extending onto the supermarket product line. Such foods have been available previously for the treatment of patients requiring special feeding (e.g. people with severe temporal mandibular joint problems) or for dieters willing to pay premium prices for such products through their commercial diet companies. These products displace the 'meal' as a social entity and, at the same time, offer reassurance to individuals that they are eating a 'properly balanced' meal prepared under expert nutritional guidance. In a sense, the 'meal' becomes a prescription, with the consumer merely choosing the desired flavour. The medicalizing process occurs more explicitly in the rapidly increasing marketing (and consumption) of dietary supplements. Here, the linkage of food and medicine is more obvious, with these products commonly presented in drug-like form—pills and tablets, complete with dosage instructions and notes on contraindications. Vitamin and mineral combinations are readily available in this form, alongside a huge range of special 'treatments' for various 'conditions', such as specific formulations for strengthening the immune system, for the prevention of prostate conditions in men or for the alleviation of menopausal symptoms for women. These products are becoming more widely available as they are increasingly disseminated through supermarkets, and no longer limited to pharmacies and specialist health food shops. The boundary between dietary supplements and

'natural' and herbal treatments for specific 'illnesses' is particularly intricate and consequently problematic for government regulators and consumers alike.

Other dietary-related products offer supplements for lifestyle reasons, such as the various electrolytic replacement drinks for the exercising middle classes (the marketing of 'Sweat' in Japan, using the English word as the product name, provides one interesting example). Other specialist dietary supplements and food replacements are marketed specifically to body-builders and body-sculptors, many of whom have diets considerably removed from the ordinary. A more recent development in dietary supplementation is the marketing of probiotics—products designed to ensure health through the provision of health-enhancing microbes. A recent marketing pamphlet for such a product offered 'more than 4000 bugs in one tablet'—these bugs were mostly *Lactobacillus acidophilus* and *bifidus*, which are well known to consumers through the marketing of yoghurt products—to ensure 'good gut health'. The most widely recognized product in this category is probably Yakult, a branded yoghurt-based drink widely sold in a multi-pack daily dose format, with the implication that a daily dose is necessary to maintain health. Probiotics have been shown to have some beneficial health effects in randomized placebo-controlled trials (e.g. Hatakka, Savilahti, Pönkä, Meurmann, Poussa, Näse, Saxelin, & Korpela, 2001).

One of the most direct ways in which food and medicine have become elided is in the creation of distinctive functional foods or 'nutraceuticals' that are marketed to prevent or treat specific illnesses. Nutraceuticals are defined as 'everyday foods containing ingredients with defined health benefits' (Yalpani, 1997, p. 4). A number of these are niche food products for people with specific illnesses. For example, Cardia salt, a salt with reduced sodium and enhanced potassium and magnesium content, is targeted to help control hypertension. NiteBite is a snack bar with high carbohydrate content aimed at preventing overnight hypoglycaemia in diabetic individuals. Heart Bar is another snack bar, containing the amino acid L-arginine, and aimed at reducing angina pain. A large number of products of this type exist, and function to produce a correspondence between illness,

treatment and food. Perhaps the best known of these products, since it is marketed to the general population rather than to specific target groups, is a new type of margarine that incorporates a cholesterol-reducing plant additive. This is promoted to health-conscious consumers complete with dosage advice (2–3 serves, approximately 25 grams, daily). In this process, an everyday food product is transformed into a daily medication for people seeking to reduce their cholesterol level. In delivering targeted medication through food, the elision of food and medicine is complete. However, we should note that medicating food for the population at large is not new; many countries have added fluoride to water, iodine to salt and folate to flour for some time, others have debated these supplementations (e.g. Wharton & Booth, 2001), amid considerable controversy in some cases.

All of these processes function inextricably to relate food with medicine and health, and to increase the complexity of food as a contemporary cultural object. Psychologists have barely begun to examine these issues (although see Dye & Blundell, 2002, for an interesting review of the possible involvement for functional foods in psychological and behavioural function), but they provide many openings and possibilities for research. However, we do need to be careful about whose interests are served by any such research, especially given the huge involvement and vested interests of international food and pharmaceutical companies in this field (e.g. Lappé & Bailey, 1998; Nestle, 2002).

Food, public health and a critical perspective

Food and healthy eating are largely accepted as public health concerns in much health psychology research. However, this research rarely takes a critical perspective, in the sense of considering who is privileged and who marginalized by the constructions of food, health and healthy eating accepted, by the research practices adopted or by the ways that the research findings are disseminated and utilized. Further, health psychology, as a sub-discipline, claims to include health policy issues within its ambit, yet very little health psychology research is directed at policy issues or is concerned with policy

implications. Certainly, there is greater concern with the application of findings, although not often from a critical perspective. Undertaking yet more research to document the lack of efficacy of nutritional guidelines or healthy eating behaviours for specific groups of people and concluding that they require ‘education’ has the potential to blame the victims, and to avoid any consideration of the structural causes underlying food poverty. As Coveny argues:

By situating the problem as one of ill-informed demand, the logical path to reducing diet-related illness is enlightenment through public nutrition education campaigns. The role of the food supply—production, marketing and distribution—and quality of food available are left largely untouched. (2003, pp. 100–101)

He notes how most health promotion activities do not address the fundamental concerns relating to food as a public health issue: the availability of fresh nutritious foods; the fact that ‘food costs represent a higher proportion of household expenditure in disadvantaged families’; and ‘diet disparity, not necessarily in terms of amounts to eat but more through the monotony of choice and a resulting inability of some groups to take part in appropriate and taken-for-granted cultural and social culinary activities’ (Coveny, 2003, p. 101). These health promotion activities are also often conducted in ‘the absence of any overall coherent policy framework that strives to make “healthy choices easy choices” through access to better and more affordable food’ (2003, p. 100). Health psychologists who fail to take account of these issues in their research probably contribute little to improving human welfare.

Another critique of this approach to health promotional activity is the way in which the individual is represented as an informed consumer amenable to education and free to choose a healthy diet. Lang (1998) comments critically on the underlying ideology of choice, noting how inappropriate it is for food choice by comparing it to the treatment of choice in environmental health:

The veneer of choice is well understood in environmental health—climate change for instance. Few people believe they can control

their air or on their own repair the ozone layer, yet the modern era has implied that diet is an individual responsibility. The new public health analysis suggests that the factors that determine what we eat, let alone its health impact, are more given and moulded than chosen. (1998, p. 539)

Hence, recognizing that food is a political issue (Robertson, Brunner, & Sheiham, 1999), and focusing on the politics of food enables a more critical examination of the relationship between food and health (see Coveney, 2003; Nestle, 2002).

Conclusions

The major arguments to be made here are that food is a complex cultural object, and that health psychology research needs to take more account of this complexity if it is to research issues around food more adequately. Health is also very complex, and like food, is a highly salient concern in contemporary western societies. Food and health are highly interpenetrated, and therefore any considerations of food are likely to have considerable implications for health. Further, these issues are replete with complexity and contradiction, and consequently are a potentially confusing and anxiety-provoking arena for eaters. People have to make sense of food (and health) in the context of their identities, their social relations and their morality as an eater. Food is essential, but it also offers pleasure and risk, is potentially life-enhancing and life-threatening. To date, health psychology researchers have paid limited attention to the variety of ways in which food is interconnected with health, or to the ways in which the meanings of food are implicated in considerations of health, or more generally to the complexity of food as a cultural object. Taking these issues into account opens a number of interesting opportunities for new research directions in health psychology. This article has attempted to open possibilities for this and contribute to an enhanced agenda for research. The meanings of food and the patterns of consumption and preferences for food are changing quite rapidly, particularly in relation to health. The medicalization of food, the rise of functional foods and nutraceuticals, the increased use of dietary

supplements, increases in numbers of vegetarians, debates about ethical eating, debates around diet, weight loss and body image, including the 'obesity epidemic' and disordered eating, the globalization of food products, the commodification of food and the development of convenience and 'junk' foods, all have considerable implications for health, and health psychologists have much to contribute in these arenas to psychological understandings of food and health, especially if they take a critical perspective on food and health. There is considerable space to expand our agendas. Hopefully, this Special Issue is one step towards that.

Coda: the Special Issue

The articles in the Special Issue begin to take up some of the issues discussed here. First, John L. Smith considers how we should research food and health, and offers a potentially contentious discussion of research approaches he labels as 'mainstream' and 'post-positivist', concluding in favour of versions of post-positivist approaches. Taking a mainstream approach, Lyons and Forde document the extent and perceptions of food allergy in young people. Also within the methods mainstream, Conner, Johnson and Grogan document how gender and sexual orientation operate as contrasting influences on body image, eating motives and eating styles. In contrast, the remaining articles all take some form of qualitative approach to researching food and health, and contribute to documenting the complexity of meanings that surround food. Joffe and Lee use a social representations approach to investigate a food-related scare, the avian bird flu epidemic in Hong Kong, and explore notions of hygiene and risk in a cultural setting where traditional and contemporary cultural practices need to be reconciled. Wiggins takes everyday talk around the family meal table and examines how healthy eating and nutritional advice is discursively managed in that setting. Burns and Gavey are concerned with the rationalizing effects of healthy weight discourse, and contrast how healthy weight, and wider issues of fitness, health, gender, femininity and body management, are constructed and managed in two different domains—texts around health promotion and the talk of women

who were engaged in bulimic practices around food. Wilson, Weatherall and Butler take their texts from Internet discussions about health and vegetarianism, and present a rhetorical analysis to illustrate how health and ethics are variously invoked to resolve the dilemmatic positionings of vegetarianism and meat-eating. Madden and Chamberlain examine the complexity and contradictions of positionings offered to women readers through the discourses used in texts on healthy eating found in women's magazines. Snejder and te Molder also turn to the Internet for their texts, exploring how personal accountability for health and ideological positions in relation to food choices are managed discursively in a forum discussion on vegan dietary practices. Taken together, these articles begin to illustrate the potential for a much greater range of research into food and health than we have previously seen in health psychology. As Fernández-Armesto notes:

The revolution which began with the discovery that food is for more than eating is still going on. We continually devise ways to feed for social effect: to bond with the like-minded, who eat alike; to differentiate ourselves from the outsiders who ignore our food taboos; to recraft ourselves, reshape our bodies, recast our relations with people, nature, gods. Dieticians like to cultivate a 'scientific' self-image, stripped of any cultural context. But they are children of their times and legatees of long tradition: dietary obsession is a fluctuation of cultural history, a modern disease, of which no health food can cure us. (2002, p. 62)

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