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# Out of the Box

Why do nutritionists have little or nothing to say about feasting – or come to that, fasting? Why do we all now seem to agree that obesity is a disease; and what's wrong with being overweight? Also, now that the economic, social, environmental and ideological drivers of food systems are recognised, what should we do?

## Why silence on feasting?

Nutrition scientists and other experts on food and health have little to say about feasting. So you might think that we are a glum lot, but that's not my experience. International nutrition science conferences are replete with magnificent buffets and private dinners and receptions, and usually include a gala banquet or two. It's just that feasting seems not to enter into the professional thinking of nutrition scientists. This is odd, and also a pity; the omission seems puritanical. Besides, health isn't just absence of physical diseases.

Is there some kind of turf treaty as a result of which food culture and the enjoyment of food in good company is agreed to be off-limits for scientists? Occasionally I have read the work of behavioural scientists whose speciality is food, and they too give a puritanical impression. I can't remember papers on feasting, but I have read plenty on bulimia, anorexia and other dread effects of gorging and bingeing. Maybe the reason is that enjoyment, being hard to quantify, is therefore thought not to be scientific. However, the least measurable is the most valuable.

For the social and cultural joys of feasting, rely on cavalier food writers. Once in London I facilitated a joint meeting of the Nutrition Society and the Guild of Food Writers on Mediterranean food, which culminated in a splendid supper created by Prue Leith's team, served in the marquee restaurant then overlooking the Serpentine in London's Hyde Park. It was sweet to see that some of the professors were fans of the more celebrated food writers, such as Claudia Roden, then with her own television series. We were nourished at least as much by the feast and the conversations as we were by the research presented during the day.

## Why is food chemicalised?

Another odd fact about nutrition science is identification of food with its chemical constituents in reference books and expert reports, and thus in popular accounts and on processed food and drink labels. This, it seems to me, is pernicious.

Take for example the various types of rocket fuel marketed to children. Parents worry about processed foods and drinks whose main ingredient is added sugar, such as sweetened cocoa drinks. I am looking at the label of an international leading line, a hot seller in Brazilian supermarkets, which says the product is rich in vitamins and is a source of calcium and iron. The ingredients list sugar, cocoa powder, maltodextrin, minerals and vitamins, and preservatives. The nutrition label lists Ca, Fe, Mg, thiamin, riboflavin, niacin, vitamin $B_6$, vitamin $B_{12}$, pantothenate and biotin. The labels do not say how much sugar the product contains, but in every 20 gram serving there are 17 grams of carbohydrate. It tastes like cocoa-flavoured sugar. My taste-buds tell me that it's about 80% sugar. A 400 gram (14 ounce) tin retails at the equivalent of a bit over $US 2 or £1. The tin, useful as a container for small toys, may cost the manufacturer as much as its contents.

Sugar flavoured with cocoa is essentially no different from hundreds of other products made by transnational and national companies. These kids' rocket fuels – sugar plus other ingredients, which also take the form of 'fortified' breakfast cereals, biscuits, 'energy bars', sweetened yoghurts, sweetened drinks and many other products – are marketed as if they are yummy vitamin and mineral pills.

An expert committee reporting to the British prime minister in the early 1980s stated: 'The ability to fractionate and recombine food components will create more opportunity for the fashioning of food products in novel ways'[1]. So it has proved. Look at the ingredients and nutrition labels of processed foods, not just those marketed to children. Many if not most of these are made out of 'macronutrients' – fats, carbohydrates and proteins – stripped out of foods, 'purified', 'refined' and 'modified' into uniform raw material using techniques such as hydrogenation and hydrolysation, put together again with bits of foods such as nuts, seeds and herbs, then often 'fortified' with analogues of micronutrients, and made more attractive with cosmetic chemical additives – colours and flavours – and other chemicals such as stabilisers, firming agents, aerating agents, anti-caking agents, bulking aids, texture improvers, thickeners, thinners, binders, buffers. They also contain water, which may be declared, and air, which is not declared. These are not foods as celebrated in song and culture and cuisine and everyday meals. They are edible chemistry sets.

The chemicalisation of food, also known as 'nutritionism', is a theme of Michael Pollan's exhilarating new book[2].

He challenges the profession of nutrition. 'Because food in this view is foremost a matter of biology, it follows that we must try to eat "scientifically" – by the nutrient and number and under the guidance of experts'. And: 'If such an approach to food doesn't strike you as the least bit strange, that is probably because nutritionist thinking has become so pervasive as to be invisible'. But: 'As long as humans have been taking meals together, eating has been as much about culture as it has been about biology'. However, what most people whose food systems are industrialised eat today, he says, is not food, but 'edible food-like substances'.

Commentators such as Michael Pollan and Gary Taubes[3] should be invited to present at international nutrition conferences. It would be fun if their PowerPoints included snaps of the conference gala banquet, with all this can be said to imply.

## Is obesity a disease?

Here follow some musings on overweight and obesity. First, is obesity a disease? It is so listed in the International Classification of Diseases, and it is now almost always called a disease. As far as I know, this is recent development.

When based at the Medical Research Council centre at Northwick Park in north London, John Garrow spent many years examining and seeking to treat obese patients. He begins his 1981 clinical manual[4] by stating that obesity is a disease. The 1990 and the 2003 WHO reports on diet and the prevention of chronic diseases[5,6] include obesity as a risk factor for CVD, various cancers and other diseases, and also as a disease in itself. But is it? This is deep and murky professional and commercial water.

To some extent it depends what is meant by 'disease'. If the word simply means dis-ease, then the answer obviously is yes. Very fat people are usually miserable and uncomfortable. They are also likely to suffer from diseases and disorders directly caused by their excess weight, such as arthritis in the knees and sleep disturbances. But a condition that increases the risk of a disease is not therefore a disease. Tall people are at higher risk of various cancers[7], but few people would say that tallness is a disease.

If you look up the word 'disease' in general and also specialist dictionaries you will find various definitions. These all will certainly imply that tuberculosis (an infection that is also infectious), meningitis (also an infection, while not infectious), cancer (whether or not caused in part by infective agents) and multiple sclerosis (and other non-communicable chronic conditions) are diseases. They may or may not imply that the common cold (an infection that is also infectious), boils (also an infection, while usually not seen as infectious), short sight or sunburn (and other non-communicable conditions) are diseases.

What's the difference? Both health professionals and lay people are more likely to think of contagious infections as diseases. This dates back to the time when the germ theory of disease was ascendant. Degree of seriousness is also a factor. Thus as indicated by its name, cardiovascular disease, while neither an infection nor contagious, is universally accepted as a disease, whereas a transient infection such as one that causes a sore throat is less likely to be thought of as a disease.

Disease is one of those words – and concepts – which the more you think about them, the fuzzier they get. Generally speaking, it seems that a disease is a physical – and now also a mental or emotional – condition which formally qualified professionals such as physicians say is a disease. That is to say, having a disease implies that you are a suitable case for medical or surgical treatment. This causes 'definition creep': the more conditions health professionals want to treat, and for which pharmaceutical companies formulate drugs, the more will be identified as diseases.

So now what about obesity? An immediate problem with identifying obesity as a disease is this suggests that obesity is something that happens to you or that you 'get'. This reduces people to subjects: 'patients'. People who are obese who want to reduce their body fat are better off being impatient. It is surely unethical to medicalise overweight short of obesity as a disease, inasmuch as this suggests 'capture' by the medical profession and the pharmaceutical industry, and implies that half the populations of high-income countries are suitable cases for treatment. It does though seem reasonable to classify severe obesity (say, BMI of 40 or more, and probably also high 30s) as a disease. Indeed, very fat people who elect for treatment are in effect defining their condition as a disease.

## What's wrong with being overweight?

Second, what's wrong with being overweight? Some recent books challenge the idea that overweight is unhealthy and also that obesity is a disease (or unhealthy, for that matter)[8–10]. One of their authors, Paul Campos, bravely made his case at the public health nutrition conference in Barcelona in September 2006.

The main counter-attacks I have heard 'play the man, not the ball'. These say that those who refuse to accept that overweight and obesity are a global public health emergency are apologists for the junk and fast food and drink industry, or else ideologically driven champions of individual freedom to choose to go to hell in a handcart. Maybe so, but that does not mean they are wrong. Besides, those who insist that overweight short of obesity (or even BMI under 25) increases the risk of serious and deadly diseases can be and are[9,10] accused of preparing the ground for the multinational manufacturers of obesity drugs.

Much depends on why people are overweight, or should I say 'overweight'. Pathogenic processes within the bodies of overweight people are mostly not a function of body fat itself, but of what is making them overweight. Do you believe that an overweight person who is inactive and who habitually consumes highly processed foods and drinks is likely to be as healthy as a physically fit overweight person whose high level of energy balance comes from regularly consuming big meals of whole fresh food? I don't. This makes no sense.

The same argument applies the other way round. Do you believe that a sedentary woman whose weight cycling has devastated her lean tissue, in energy balance maybe at 1400 kcal (5850 kJ) a day or less, who is flabby and shapeless while having a low BMI, is likely to be better nourished, healthier and better protected against serious diseases than a woman who walks a lot, enjoys her food, has never gone on a diet, in energy balance maybe at 2000 kcal (8400 kJ) a day or more, whose BMI is say 5 points higher, and above 25? I don't. This also makes no sense.

The issue of whether or not overweight and obesity are diseases is not just semantic, but serious. Women all over the world are now assailed with advice on weight control and are being pushed to lose weight. In my view, overweight people who are not obese and who are in generally good health, should be encouraged not to go on energy-restrictive dieting regimes and to relax about their weight (and their BMI). Instead, they should be encouraged to become a lot more physically active, up to the level to which the human species evolved and is adapted, and thus raise the level of their energy balance, and to enjoy delicious high-quality meals. In this way they may well eventually lose a substantial amount of weight and body fat, but if they do not, and if they remain active, maintain their lean tissue, eat well, and feel healthy, I can't agree that they are unhealthy, let alone diseased.

Yes, there are arguments that counter what I have sketched here. Let's have some letters for publication and debate in this journal.

## Origins of the snack attack?

In the midst of musing about the rise of fast food and the fall of the meal and the family – surely a theme for learned papers in this journal – I came across two stories, one told in 1892, one concerning 1991, which I hasten to share with you[11].

Around the turn of the 19th and 20th centuries European visitors to New York were amazed by the style and speed of meals. Nothing like this had been seen anywhere in the world until then. Of executives and office workers Frenchman Paul de Rousiers reported: 'Nobody goes home in the middle of the day. They eat wherever they happen to be: in the office, while working in clubs, and in cafeterias… In blue-collar restaurants thousands of people eat standing up, with their hats on, all in a line, like horses in a stable… While lines of men dig in to plates brimming with meatballs, others wait to take their place'. With hats on – that's a nice touch. It can also be included in tips issued by the slow food movement. 'When eating, take your hat off'. And sit down.

Contextualising this, even in the USA the fast food style remained a feature only of big cities until the second half of the 20th century, with the gradual and then accelerated rise of fast food 'restaurant' and takeaway chains at first on highways beginning in the 1950s, in those far off days before Ray Kroc had his Big Idea. For adolescents, hanging out at drug stores that served soda, and then driving around and browsing and grazing at fast food joints, became embedded in a style of life then commemorated in rock'n'roll lyrics as composed and performed by acts like Chuck Berry and The Beach Boys. Fast and convenience food took off in a big way throughout cities in the USA in the 1970s, and domestic penetration was enabled by the mass use of industrial and domestic freezers.

Old-timers like me recall that until the 1970s the fast food way of life was still exotic in Europe. It some places it still is, and I can report that many families in German, Italian and French cities still have lunch together at home. Not only in Europe, either. Parts of Brazil still hold out against burgerisation, or as it is known here, *cola-colonização*. In 2001, staying as the guest of a large professional family in the city of Fortaleza in the state of Ceará in northern Brazil, I experienced the convention of the father coming home to lunch every day and the grown-up children and their partners coming to lunch served with ceremony at weekends. Where the habit of eating together at home – if not at lunch then in the evening – remains normal, this is a celebration of the family and the meal as well as of the food and drink, whose appreciation becomes a natural part of the conversation. But in much of the world now the family meal, and with it the family, is disintegrating. People eat while they are doing something else.

Here is the second story. It seems that spies could have told Saddam Hussein when Baghdad was about be bombed in 1991. This they could have done if they had infiltrated the Washington takeaway delivery system. On 16 January Domino's delivered fifty-five pizzas to the White House, rather than the usual five, and 101 pizzas to the Pentagon, rather than the usual three. It's a safe guess that the elder George Bush, then president, and the US joint chiefs of staff did not discuss the pizzas.

## What then is to be done?

The food policy establishment is getting the message about the driving forces of malnutrition. Joachim von Braun, director-general of the International Food Policy Research Institute, headquartered close to the World Bank in Washington, summarised the world food situation in a

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presentation made in Beijing last December[12]. He rightly says: 'Income growth, climate change, high energy prices, globalization, and urbanization are transforming food consumption, production, and markets'. Some of the forecasts he cites are ominous. For example: 'World agricultural gross domestic product is projected to decrease by 16 per cent by 2020 due to global warming… the impact on developing countries will be much more severe than on developed countries'. One of his conclusions is: 'Higher food prices will cause the poor to shift to even less balanced diets, with adverse impacts on health in the short and long run'.

These are bad times. Occasionally I quote the saying of the 19th century German public health pioneer Rudolf Virchow: 'Epidemics are great warning signs, against which the progress of civilisations can be judged'. He talked the talk. In 1848, aged 27, he was asked by the rulers of Prussia to identify the reasons for an outbreak of typhus in Upper Silesia. His report stated that the cause was poverty and in particular the outrageous living conditions of impoverished communities. He said: 'The proletariat is the result, principally, of the introduction and improvement of machinery … shall the triumph of human genius lead to nothing more than to make the human race miserable?' He also walked the walk. In the same year, 1848, workers' uprisings shook many European governments, and he helped to build barricades in Berlin[13].

Faced with soaring rates of childhood obesity and early-life diabetes, parallel soaring consumption of fast food and drink, and the evident links with natural resource depletion, what is to be done? Short of building barricades, we could make a start by joining Greenpeace.

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*Authorship responsibilities:* The fast food anecdotes are pillaged from a paper by the wonderful Claude Fischler referenced below; I admit that I have not read the original French and Italian articles. The manager of Reiter's bookstore at 2021 K Street NW in Washington gleefully pressed a pile of contrarian books on obesity on me. Other people who contributed to the ideas in this column are acknowledged in the text and references below. Other stories, anecdotes and snippets by

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