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Out of the Box

Have you ever felt that life is really all about paying the mortgage and raising a family, and all this stuff about making a difference in the wider world is smoke and mirrors? Sure you have. See below. Plus, why we still seem to have our collective heads in the sand on climate change and on unorthodox eating patterns like fasting, and instead stay fixated on food chemistry. This month's novelty is my first go at a *truly conscientious* 750-word acknowledgements section (730, getting there).

How to be a crank

The historian Howard Zinn[1] refers to the JFK–RFK or Martin Luther King–Malcolm X syndrome: when anybody starts to threaten The System, they get knocked off. The reasons for the killings of John and Robert Kennedy will remain murky, but there's little doubt that Martin and Malcolm were assassinated because they were making too much trouble – in Malcolm's own phrase, they were 'crazy niggers'.

Public health nutrition is nursery slopes compared with the black and off-piste runs of politics. A nutrition professor tells me that in 1952 Jack Drummond was not murdered by a demented French peasant, but assassinated by order of dark forces concerned that as the proud architect of the British wartime food and nutrition policy, he was about to denounce and impede post-war policy, then being shaped to suit big business.

This notion is too far out even for me, if only because – sorry to say – nutrition professionals don't seem to rate assassination. People in our world who challenge the established order stay alive, but they are stopped from kicking by being marginalised. In my long-gone activist days, public relations agencies hired by food manufacturers dreamed up collective names for Tim Lang, Sue Dibb, Tim Lobstein, Caroline Walker and others including myself, designed to hold us up as objects of hatred, ridicule or contempt. We were labelled as cranks, fanatics, food faddists, food terrorists, food Leninists, even – rather charming – food lentilists.

Selfishness supremacists, who believe that individuals should be free to do whatever they feel like short of breaking the law, also get in on this act. Bernard Levin once identified me as 'Life President, Great Panjandrum and Sugar-Finder General of the Incorporated Society of Wowsers' in one of his columns for *The Times*[2], and averred that I would disapprove of him enjoying 'Bise's *poulet à l'estragon* or Pic's *foie de canard au marc*, to say nothing of the four-pound lobster I consumed all by myself at the Arbutus Lodge near Cork, followed by an immense slice of chocolate gateau'. I think of Bernard stuffing himself with equanimity. He must have bust his braces at the Arbutus Lodge, now closed.

The general idea behind this name-calling is to spread it about that those with an uncomfortable take on food and nutrition are not really interested in improving public health, but are unbalanced; or are really motivated by self-interest, desire for fame or money, making trouble, vegetarianism, puritanism, determination to tear down the fabric of capitalism or of society as a whole, and so on. That's to say, 'cranks'. As Alan Long always says, cranks keep wheels turning.

Paranoia strikes deep

When part of a concerted campaign these techniques are fairly effective. One common effect they have is to push the people being sidelined to paddle into the mainstream. This is particularly evident with research scientists. If you have evidence-based convictions that fly in the face of the ideology of 'the market', genetic engineering, the –omics eight-ring circus and other current trends in policy as determined by government and its agencies, industry and other funding bodies, you are less likely to secure grants, and you certainly won't get any dosh for the projects that most interest you. And look at me now. I could have been a contender, instead of a columnist for an organ of the Nutrition Society, which is what I am. Plus I do this for free. *You see*? This *proves* I am a fanatic.

The same applies to civil society organisations big enough to secure grants from government. During the 1990s when I was chair of the UK National Food Alliance (now Sustain), I sometimes sensed a Faustian deal, whereby the Department of Health or Ministry of Agriculture (as was) would give money whose real purpose was to corral good people into an enclosure where they would work out of harm's way on projects designed to get nowhere or else – more cunning – whose value was just enough to sustain morale, but way below anything that might make a big difference.

Once a civil society organisation gets to the point of depending on government grants, it's less likely that its trustees will insist on fire-and-brimstone projects that are difficult to fund. So in the UK, projects designed to provide salads for lunch in schools in Giggleswick, Moreton-in-the-Marsh and Solihull are OK, whereas transformation

of the national school lunch system is not OK. 'Stakeholder' working groups designed to elaborate the information printed on labels about the chemical content of processed foods are OK. Taxes heaped on added sugar, fat and salt, the revenue to be spent on public health, are not OK. Tim Lobstein recently raked some muck, revealing that the UK Food Standards Agency is now governed and directed by food industry bods[3]. Such regulatory capture bears out my gloomy thesis.

Here is my question. In say the last 50 years, are there examples of big improvements in public health that can definitely be attributed to public health nutrition policies and programmes? What real difference have we made? And if there are examples, what have been their special features, and what lessons can be learned?

Yes, I can think of possible examples, but we should not rely on myths as a basis for judgements. In Finland there is the North Karelia intervention. Internationally there is the UN global strategy on infant and young child feeding. In Norway there are the national food and nutrition policies and programmes. In the UK there is the campaign to get cooking restored to school curricula. In Brazil there are the school lunch programmes, federal and in the municipality of Rio de Janeiro.

These all have a common factor – direct action by civil society organisations. Do these and others add up to enough achievement to justify the profession of public health nutrition? Let's hear from Pekka Puska, Kaare Norum, Mercedes de Onis and Cutberto Garza, Jeanette Longfield and Tim Lang, and Denise Coitinho and Inês Rugani, plus some commentary from knowledgeable and tolerably friendly sceptics.

The climes they are a-changin'

The socio-biologist Edward O. Wilson says, in a valedictory appeal to his peers and to everybody prepared to listen and think[4]: 'Life on this earth can stand no more plundering… those living today will either win the race against extinction or lose it, the latter for all time. They will earn either everlasting honor or everlasting contempt'.

Food politicians are beginning to respond. In a rather excellent state of the world message, Joachim von Braun, boss of the International Food Policy Research Institute, writes[5]: 'The world food situation is currently being rapidly redefined by new driving forces. On climate change: 'Land suitable for wheat production may almost disappear in Africa'. (Hooray, I say – if that means a return to other grains, roots and tubers). More generally: 'World agricultural GDP is projected to decrease by 16 per cent by 2020 due to global warming'. South Asia will be hardest hit.

That's nothing! Five years ago the Pentagon commissioned futurologist Peter Schwartz to speculate on the effects of climate change by 2020. You last met Dr Schwartz in this column a couple of years back. When co-director of the Stanford Research Institute's Values and Lifestyles programme (VALS) in the late 1970s he propagated 'lifestyle choices' as a way to market politicians, and very effectively too, as witness Ronald Reagan and Tony Blair. The Pentagon sat on his report for some while[6]; understandably, because its scenarios are apocalyptic. His 2020 vision includes a Siberian Britain. As water runs out and the world warms up, he foresees unleashing of the dogs of war. Small nations will develop nuclear capability to protect their water sources and 'once again, warfare would define human life'.

Hot stuff. Now, I am not saying he is right. But when will nutrition scientists start to factor climate change into their thinking? To mention titles of a couple of recent papers in our esteemed sister the *British Journal of Nutrition*, this sure puts 'effects of anthocyanin-rich purple potato flakes on antioxidant status in F344 rats' and 'increased plant sterol and stanol levels in brain of Watanabe rabbits' in perspective.

That's the spirit

Last month I wondered why nutrition science has almost nothing to say about feasting. Now I wonder why a veil is drawn over fasting. In their combined 1700 large-format pages, two fat nutrition science textbooks[7,8] contain four references to fasting. Journals are also almost silent about fasting, or indeed about sustained energy restriction in humans.

Virtually no conventional research is undertaken on fasting. Indeed, it is commonly assumed inside as well as outside the medical and other health professions that radical fasting is cranky, bizarre and dangerous, both in itself and because it could provoke compulsive selfstarvation.

But this won't do. Fasting affects health. The naturopath Harry Benjamin observes[9] that when animals are unwell: 'They will eat nothing perhaps for a week or longer – they may sip a drop of water now and then – until the disease or malaise has run its course'.

Writing in the 16th century, Luigi Cornaro said[10]: 'Nature, being desirous to preserve man as long as possible, teaches him what rule to apply in time of illness: for she immediately deprives the sick of their appetite in order that they may eat but little'.

In our time, Margaret Visser writes[11]: 'The bodies of both animals and people are biologically gifted not only to do without food for a while should there be none available, but also with a complex mechanism that makes a body deprived of food more alert and in less need of sleep and – some way into the fast – makes the mind much more energetic than usual'. Naturopaths also say that radical fasting encourages the body's natural powers of healing. Some say that fasting enables the body to rid itself of accumulated rubbish and also diseased tissue. Is this a weird idea? It seems common sense to me.

Harry Benjamin, Luigi Cornaro and Margaret Visser were and are not MD PhD. But it's not as if fasting is a fringe activity. It is still undertaken all over the world by vast numbers of people. Most if not all ancient philosophies of life enjoin fasting. Prolonged fasting restricted to water or to frugal or symbolic foods enables visions on which religions are founded and developed. Jesus, recorded as fasting a feasible 40 days and 40 nights, was within an already ancient tradition. St John Chrysostom declared: 'As bodily food fattens the body, so fasting strengthens the soul… to put the heavenly higher than the pleasant and pleasurable things of life'. Amen.

Now I can see why fasting gets the elbow from nutrition scientists. *The spirit!* Oo-er! Other than in degrees of proof of the alcoholic variety, you can't measure spirits. That's enough fasting.

Nutritionism, aka chemicalisation

Michael Pollan is one of a line of US thinkers, researchers and writers, without technical academic qualifications, who are making agriculture, food and nutrition their life work. In his own country he is becoming influential; I can envision him as a shaper of US policy inside an Obama administration – not that this is going to happen.

His new book[12] slams 'nutritionism', whereby food is seen in terms of its chemistry. I agree. Identification of food with its chemical constituents is evident on all nutrition labels of processed products. Take a look. These usually list amounts of protein, carbohydrate, fat, saturated fat, dietary fibre, and maybe some vitamins and minerals, contained in the products. It is practically impossible to make sense or use of most of the information about food on nutrition labels.

Here is one example: carbohydrates. Like fats and ethanol (alcohol) these are combinations of oxygen, carbon and hydrogen; hence their name, identified as such in the 1820s. Chemically all carbohydrates are similar. Biochemically they are different. What fresh foods high in carbohydrates – like whole-grain cereals, pulses (legumes), starchy roots and tubers, and fruits – do to you is different from the effect of starches and sugars stripped out of these foods and combined as main ingredients of processed foods.

Why are carbohydrates listed on nutrition labels? This is useless information. Manufacturers are not obliged to state what proportions of the carbohydrates in their products are from starch and what from sugars, unless they choose to make associated health claims. So they don't. This is because companies whose profits and share prices depend on adding sugars to their products have combined their forces, and made sure in their dealings with regulators that the volume of added sugars in processed foods and drinks generally remains a mystery. This is against the public interest, and shame on the profession of public health nutrition for not seeing this.

Envoi

This column is meant to offer homilies, dig up nuggets, and make you smile. So here are a couple of quotes. If like me you are sure that dieting does not work, we are in good company. Here is the view of Robert Burton from four centuries ago[13]. 'Some… draw this mischief upon their heads by too strict and ceremonious a diet… Lessius the Jesuit holds 12, 13, or 14 ounces, or in our northern countries 16 at most, for all students, weaklings, and such as lead an idle sedentary life) of meat, bread &c a fit proportion for a whole day, and as much or little more of drink… Of such men belike, Hippocrates speaks when as he saith: "they more offend in too sparing diet, and are worse damnified, than they that feed liberally, and are ready to surfeit".'

From nearly a thousand years ago, this was the advice of the School of Salerno[14] on wine as a dieting aid. 'White, Muscatel, and Candy wine, and Greek,/Do make men's wits and bodies gross and fat', whereas 'Canary, and Madeira, both are like/To make one lean indeed: (but wot you what)/ Who say they make one lean, would make one laugh,/They mean, they make one lean against a staff.' Ho, ho.

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Competing interests: From time to time I undertake fasts, including fruit-only and water-only fasts, as recorded in previous columns. Has this influenced me to think that nutrition science is wrong to neglect fasting? Sure it has. Is this a competing interest? Maybe it is. Like, should epidemiologists who are vegans declare this on their papers featuring veganism? I am inclined to say yes. Mind you, the same applies to researchers who knock back a gottle of gine or two a day, whose results seem to show that alcoholic drinks protect against CHD. Perhaps as well as 'competing interests', authors should be asked to declare 'relevant ways of life'. On other topics, with Claus Leitzmann I am co-convenor of the International Union of Nutritional Sciences/World Health Policy Forum *New Nutrition Science* project, whose spiral motif accompanies this column. This plug here for my rewritten version of *Dieting Makes You Fat* (published in the UK on 26 June, folks) is by permission of the editor-in-chief.

Authorship responsibilities: I do not have permission to attribute the notion that Jack Drummond was assassinated. Authorship of the chemicalisation of food thesis is an interesting topic, and there has been some squawking and bitching in this area[15]. The first time I realised how strange it is that nutrition science identifies food with its chemistry was in the mid-1980s, thanks to Peter Mansfield and Caroline Walker, who secured for me a treasured copy of the first 1940 hardback edition of McCance and Widdowson with its accurate title *Chemical Composition of Foods*[16], replete with recipes for Cabinet Pudding, College

Pudding, Queen of Puddings, Suet Pudding, Tapioca Pudding and Toad-in-the-Hole. Then I developed the idea in lectures given at Cornell University in 1992, and in various other publications[17], including this column. Some time ago Gyorgy Scrinis sent me a paper he had independently written on 'nutritionism'[18], basically the same idea. He also sent his paper to Michael Pollan, who with fulsome acknowledgement developed the idea in a big feature in *The New York Times Magazine* published last year[19] and now in his new book[12]. After reading Michael Pollan's feature I sent him a bunch of my stuff, saying he was free to loot and pill as long as he gave me an acknowledgement in his book; which he did, he brackets me with Joan Gussow and Marion Nestle, which is nice. In turn, I have quoted from Michael Pollan in the new version of *Dieting Makes You Fat*. My take on the ethics of this is as follows. The thought that identifying food with its chemistry is strange – and also pernicious – has been 'out there' ever since the battles over the heart and soul of nutrition science were fought in the mid-19th century and won at that time by Justus von Liebig and his followers. The issue was revived after the 1939–1945 war by the founders of the organic farming and growing movement. After that, good luck to anybody who can run with and develop the idea, and – better still – persuade colleagues and the general public to stop thinking chemistry. Nobody owns any of this and the race is to the swift, but yes, it is ethical to acknowledge prior authorship. Thank you, Peter, and thank you, Michael. Also on authorship responsibilities, I have discussed fasting with Anthony Kafatos and Katerina Sarri of the University of Crete[20], and my friends Kirsten Hartvig and Nic Rowley[21]. I also must give special credit to the polymath Robert Burton and his *Anatomy of Melancholy*. The life's work of this rusticated scholar is a treasure-house of aphorisms and quotations. Thus on physicians – and perhaps diet doctors: 'They are so different in their consultations, prescriptions, mistaking many times the parties' constitutions, diseases and causes of it, they give quite contrary physick… One saith this, another that, out of singularity or opposition'. And of advice on diet: 'Alexander Severus loved hares and apples above all other meats… one pope pork, another peacock &c, what harm came of it? I conclude, our own experience is the best physician… Tiberius, in Tacitus, did laugh at all such, that after 30 years of age would ask counsel of others concerning matters of diet: I say the same'[13]. More puffs for good books, squibs on food lentilism and the silence of the lambs, and voluminous acknowledgements, by

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