

Notebook - Ultra-Processed People: Why We Can't Stop Eating Food That Isn't Food

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The cow microbiome is so crucial to its survival that you could invert your idea of a cow and think of it as simply a vehicle for its own microbiome, a fourlegged vessel transporting the microorganisms to the plants of their choice. Once you've done that, you can imagine yourself in the same way.

Note:

This is a similar concept first introduced to me by Dawkins' book The Selfish Gene.

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This is the full list (notice that there's hardly any processing of any kind – not even any cheese or butter): • meats (muscle cuts): beef (raw and cooked), lamb, chicken • glandular organs: liver, kidney, brains, sweetbreads (thymus) • seafood: sea fish (haddock) • cereals: whole wheat (unprocessed), oatmeal (Scotch), barley (whole grains), cornmeal (yellow), rye (Ry-Krisp) • bone products: bone marrow (beef and veal), bone jelly (soluble bone substances) • eggs • milks: grade A raw milk, grade A raw whole lactic milk (similar to yoghurt) • fruits: apples, oranges, bananas, tomatoes, peaches or pineapple • vegetables: lettuce, cabbage, spinach, cauliflower, peas, beets, carrots, turnips, potatoes • incidentals: sea salt.

Note:

Give to the children to eat on their own
and by their choice

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Any medical drug you've ever taken has been licensed by at least one of a small number of allegedly 'stringent' drug regulators like the FDA.

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I assumed that food additives in America would be put through a similar procedure, because they're regulated by the same federal body.

Note:

In other words... wrong

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But – and this is an important ‘but’ – the amendment allowed an exception to the term ‘food additive’. Some substances were to be considered ‘generally recognized as safe’, or GRAS, a designation that was intended to allow manufacturers of common ingredients, such as vinegar and table salt, to bypass the FDA’s lengthy safety-review process when their products were added to processed foods. Almost immediately, however, this loophole became a way for companies to bypass the FDA entirely. Hundreds of chemicals were immediately added to the GRAS list. Exactly how some got onto the list isn’t clear, since lots of the documents are held by the companies that originally made the request, while the documentation and data that were submitted to the regulator have not been published. Registration of a new additive as GRAS is the second option provided by the FDA and the route that Corn Oil ONE took.

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Neltner sent me Corn Oil ONE’s eighty-page FDA submission,⁷ which claimed that the corn oil was safe based on two unpublished studies and the opinion of four experts convened by the company. I rummaged through and noticed a diagram of the molecular structure of corn oil.

You can simply decide whether you think your product is safe and then put it in food. Because this is so far from how medical drugs are regulated, I had to get Maffini and Neltner to explain this a few times. If the company that will make money from an ingredient disagrees with the FDA's concerns, and it believes that its product is GRAS, then it can withdraw the FDA application and put the molecule in food anyway.

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The corn oil on your kitchen counter, or listed as an ingredient in your lunch, may well have been produced using a technology that leaves it full of unlicensed additives

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Neltner estimates that there is a universe of around 10,000 substances added to food in the USA. But because companies are allowed to self-determine, even the FDA doesn't have a complete list, and around 1,000 of these substances are estimated to have been self-determined secretly.

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Trans fats are made when hydrogenation is used to turn liquid plant oils into more useful solid fats. The FDA recognised that these fats were causing hundreds of thousands of heart attacks, and tens of thousands of deaths each year. It still took decades to remove them from the food supply in the USA (despite the first concerns being published in the 1950s!) but in that instance, at least we knew what they were. As Broad Leib pointed out, 'If trans fats had been self-approved§ then they would never have been on anyone's radar. No one would have been able to link them to the increase in heart attacks and deaths.'

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Take the case of isoeugenol, a chemical which can be extracted from cloves, basil and gardenias and is commonly added to drinks, gum and baked goods as a flavour. It's been certified GRAS by FEMA. The US National Toxicology Program undertook a study because it has a similar structure to some other molecules that cause cancer.¹⁵ This study found 'clear' evidence that isoeugenol caused liver cancer in mice – 80 per cent of the male mice treated had liver tumours. Nonetheless FEMA declared isoeugenol to be GRAS because it was a 'high-dose phenomenon without any relevance for assessing the potential cancer risk of the use of isoeugenol as a food flavor ingredient'.

Note:

As a consumer there is little to
nothing you can do except not eat those
kinds of foods

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inequalities. After all, people who don't have a lot of money to put food on the table generally eat the cheapest brands, which tends to mean products from smaller companies that are more likely to be using additives that are self-determined.

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The situation in Europe is somewhat better. The EU uses a precautionary approach, maintains a database and publishes everything.

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There are a number of studies that show that animal testing translates poorly to humans. I acknowledge that I'm happy to use mouse and rat data to support my own point, but there is a difference: I am trying to reduce risk to life, while the makers of food colouring are trying to sell food colouring.

It seems obvious to me that both in Europe and in the USA we should take a much more precautionary approach to the molecules we put in our food. The burden of proof should be on the companies that make and use additives to demonstrate long-term safety. And we need far more independent research on how these molecules affect our health in subtle ways in the long term. Why is the burden of proof on civil society groups, activists and academics to show that adding thousands of entirely synthetic novel molecules to our diet might be harmful?

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ingredients for Hot Wings aren't available online, but I managed to find the Canadian ones as I ate. They included MSG, modified corn starch, partially hydrogenated soybean oil and something called dimethylpolysiloxane. Dimethylpolysiloxane, or food additive E900, was first evaluated by the Food Standards Agency in 1969. It's used as an antifoaming agent in the frying oil to ensure worker safety.⁹ It's also used as a flea treatment, hair conditioner and condom lubricant.

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black cooks and homemakers effectively invented what would become known as southern food, their contribution was erased. The white folk took the credit for its creation, while Black people were mocked and parodied merely as greedy consumers. It's one of the most outrageous examples of cultural theft.

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The best way of making money from a chicken is to spend as little time caring for it as possible. If you keep a chicken as a pet, it will live for around six years. Yet birth-to-slaughter time for 95 per cent of the chicken we eat is just six weeks – less than 2 per cent of their natural lifespan. Free-range chickens live for around eight weeks, and free-range organic chickens for around twelve weeks (that's why it's more expensive).

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If those effects feel remote, then the effects on global climate shouldn't. The food security that many of us enjoy is the product of a system of production that has kept costs low by destroying wild land and not paying for the costs of atmospheric carbon. These approaches will, ironically, create huge food insecurity. This is happening already around the globe, but nowhere more directly than in the areas of the Amazon that have been deforested to grow soy. Inland rain requires trees.

Rain clouds on their own cannot travel more than 400km from the sea, so rain in the centre of a continent – the very rain that creates the central forest of the Amazon for example – requires continuous forest to the coast. Around half the rain that falls on the Amazon comes from its trees. As every school geography student knows, water evaporates from the sea, then falls as rain on coastal forest. Those trees ‘breathe out’ water vapour, which creates new clouds that travel further inland in so-called ‘flying rivers’. Crucially, this is how water reaches the soy and corn plantations in central and western Brazil. Once you destroy the forest you get less rain. A 2019 study showed that the rainy season in the state of Mato Grosso had become a month shorter in a decade,^{41, 42} and many of the major soy farms in Brazil are now suffering from the very drought that they have caused.

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So, the single greatest threat to Brazilian agribusiness is ... Brazilian agribusiness.

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In 2020, Coca-Cola, PepsiCo and Nestlé were named the world’s top plastic polluters for the third year in a row in Break Free From Plastic’s annual audit, undertaken by 15,000 volunteers around the world.

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Milton Friedman’, the late Nobel economist who in 1970 wrote a seminal essay titled ‘The social responsibility of business is to increase its profits’.

Note:

The birth of "enshittification"

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This singular purpose makes sense of a lot of the contradictory things that companies do, selling solutions to the problems they cause.

Note:

Kind of like religion...

No one thinks that Philip Morris should fund the doctors who generate the research around whether smoking harms you. No one thinks that tobacco legislation should be written by charities funded by British American Tobacco. Why should food policy around health be any different? Removing industry from the table will require a cultural shift before any shift in legislation. It will gradually become shameful for activists to work with the UPF industry as the understanding spreads that the companies are as responsible for diet-related disease as the tobacco industry is for smoking-related disease.