

VAT: a precise mechanism to identify drug-food companies

Kate Cooper¹, James Parle², John D. Middleton³

¹Birmingham Food Council and visiting Professional Fellow at the Crisis Management Centre, Aston Business School, Birmingham, UK

²Institute of Clinical Sciences at the University of Birmingham

³Public Health at the University of Wolverhampton and Immediate Past President of the Faculty of Public Health

Address correspondence to James Parle, E-mail: j.v.parle@bham.ac.uk

ABSTRACT

The impact of drug-foods (tobacco and cane sugar, cocoa and caffeine) and the consequences of their production on the health of both public and planet are wide ranging and increasing from obesity to pressure on water supply. The world's food system is dominated by a small number of global corporations making and promoting drug-foods in myriad forms. The use of sugar-substitute non-sugar sweeteners, and their design of products, are specifically formulated to be 'moreish', to stimulate pleasure responses above and beyond the natural pleasure of eating. In the UK we can identify these foods, and the corporations that make them, since Value Added Tax (VAT) is applied. We suggest that, for food and drink upon which UK VAT is levied, advertising and product placement should be prohibited and controls put on branding and packaging. We further suggest action is taken to: (i) restrain the activities of the companies making these products, (ii) prohibit their sponsorship and/or partnership with government bodies such as schools and NHS, (iii) ensure these corporations pay the full fiscal and environmental costs of drug-foods. Our urgent challenge is to act against the sociopathic power of such corporations, for the public health and that of the planet.

Keywords environment, food and nutrition, food choice

It's time to curb the activities of drug-food companies wreaking damage on human and planetary health.

The global trade in agricultural products began with the return of the European explorers from the USA. The most profitable of these products, then as now, were the so-called drug-foods, a term coined by Sidney Mintz.¹ It is time for us to act against the impact of these drug-foods, and the consequences of their production on the health of the planet and on all of us.

First on European shores were tobacco and cane sugar, later cocoa and caffeine.² They rapidly became popular, along with locally made alcohol products that had been consumed for centuries. Today the world's food system is dominated by a small number of global corporations that make and promote drug-foods in myriad forms. Their use, too, of sugar-substitute non-sugar sweeteners^{3,4} and their design of products such as savoury snacks are specifically formulated to be 'moreish', to stimulate pleasure responses above and beyond the natural pleasure derived from eating.^{5–8}

The health consequences of over-consumption of these drug-foods are obvious to us all and they come at a huge financial and social cost in the burden of obesity⁹ (varied though the costs assessments are),^{10–13} pre-natal and infant malnutrition,¹⁴ alcohol harm¹⁵ and diet-related dental and mental

health care. Alongside the costs with respect to human health, we also need to consider the financial and environmental costs of recycling or disposing of drug-food packaging. In the UK alone, 13 billion plastic bottles are used per year¹⁶ and one company, Coca Cola, reports it sells over 2.5 billion canned drinks per year in 'Great Britain'¹⁷; worldwide, their sales of all 'servings' including cans and bottles is 1.9 billion per day.¹⁸ Meanwhile Coca Cola, Pepsico and Nestle are ranked the three worst plastic polluters globally¹⁹ despite signing up to the Ellen MacArthur Foundation's New Plastic Economy Global Commitment.²⁰

It is less well recognized that the production of drug-foods uses a substantial proportion of our increasingly stretched natural resources. Pepsico, for example, sends 6% of the UK potato crop to their Walkers crisp factory in Leicester.^{21,22} It has been estimated that in 2012, Coca Cola's water consumption was enough to meet the annual needs of over 2 billion people,²³ a figure greater than the UN Food and Agriculture Organization estimate that, by 2025, 1.8 billion people will be living in regions with absolute water scarcity.²⁴

Kate Cooper, Director and Immediate Past Chair, Visiting Professional Fellow.

Jim Parle, Emeritus Professor.

John Middleton, Honorary Professor, Immediate Past President.

It is also widely accepted that human health and planetary health are intrinsically interlinked; both are threatened by climate change, resource depletion and population pressures. The Rockefeller-Lancet Commission on Planetary Health recognized the role of powerful vested interests as a significant barrier to action.²⁵ The former UK Chief Medical Officer, Dame Sally Davies in her last Annual Report also reminded us of the power of vested interests. In a section titled, *The lessons of history*, she said: *Early on it was recognised that the key driver of smoking was the existence of an industry with highly sophisticated strategies to maximise reach and sales.*²⁶

The dangers to population health of two of the drug-foods, tobacco and alcohol, have been accepted for decades, and some effective measures have been taken against corporate vested interests to limit their reach and sales. It is easy to identify companies whose products contain alcohol or tobacco. Many perceive it to be more difficult to identify the other drug-food companies. Here in the UK, however, our use of the Value Added Tax (VAT) system uniquely, precisely and systematically identifies the corporate vested interests at the point of sale.

Although most food and drink products are zero-rated (i.e. there is no tax payable at the point of sale), there are notable exceptions. Standard rate UK VAT is levied on products with little or no nutritional value, namely many drinks (but not, e.g. milk), all confectionery, savoury snacks such as potato crisps and some other products.²⁷ It is of note that the evidence used to support the 2018 introduction of the Soft Drinks Industry Levy²⁸ included examples of equivalent point of sale taxes in other jurisdictions, e.g. the Goods and Services Tax in Australia.²⁹ The recent Irish Supreme Court judgement³⁰ that so-called bread sold by the fast-food chain Subway contains so much sugar that it cannot be legally defined as bread and should therefore be subject to their VAT, exemplifies the difference between food and drug-food.

We suggest that, for food and drink upon which UK VAT is levied, advertising and product placement should be prohibited³¹ and, as with cigarette products, controls are also put on branding and packaging design.³²

As with tobacco and alcohol products, we suggest further action is taken to restrain the activities of the companies making and promoting these products and in skewing the science of what we eat.^{33,34} As we have an existing fiscal mechanism in the form of VAT, there need not be any delay. In addition, this action to curb corporations could be refined in the future to align the definitions of food and drink products upon which UK VAT is levied, with the definitions of high-fat, sugar and salt foods as identified via Nutrient Profiling³⁵ and the NOVA classification.³⁶

The Forbes 2018 List of the most powerful food and drink companies is predominantly made up of those producing and promoting drug-foods at scale³⁷ with VAT levied on most of their products. We suggest that for corporations making and promoting any food and drink products upon which UK VAT is levied, their sponsorship and/or partnership (including commercial partnerships such as vending machines) with national and local government bodies, nurseries, schools, colleges, universities, research organizations and the National Health Service (NHS), is prohibited forthwith. Furthermore, these corporations should be charged an Excise Duty to offset societal costs and the fiscal costs borne by the NHS, as well as raise the price of drug-food products, as is done with alcohol and tobacco products. We also suggest limits are put on their use of UK land, soil, water and energy, as well as consideration given for them to be a major contributor to a Food Resilience Levy, similar in remit and purpose to the Climate Change Levy and as previously proposed by the Birmingham Food Council.³⁸ This would facilitate reconfiguring the food system so that it is both better prepared for future system shocks and supportive of human and planetary health.

Urgent radical action is needed to curb these corporations as society is facing rapidly declining health of populations and the planet. Corporate power is, however, considerable. Indeed, the individual power of one company, Coca Cola, has been recognized in two recent *BMJ* papers^{39,40} Seeking any means by which any of these corporations would voluntarily curb their commercial activities runs counter to their *raison d'être* and is therefore futile. As John Naughton eloquently describes,⁴¹ we can regard corporations as 'artificial superintelligences', amoral rather than immoral entities, blindly seeking to extend their power and reach, indifferent to human and planetary interests.

Our urgent challenge is to speak truth to this sociopathic global corporation power and act against it.

Authors' contributions

Kate Cooper had the original idea and led its development in collaboration with the co- authors.

Jim Parle added a clinical perspective and worked with Kate developing the ideas and the paper.

John Middleton added a public health perspective.

Acknowledgements

We thank the following for helpful comments on drafts of this paper: Professor George Metsios of the University of Wolverhampton; Dr Miranda Pallan, Senior Lecturer in Public Health at the University of Birmingham; Dr Duane Mellor,

Senior Teaching Fellow at Aston Medical School; Professor Mark Petticrew, Professor of Public Health Evaluation at the London School of Hygiene and Tropical Medicine, UK.

References

- Mintz SW. *Sweetness and Power: The Place of Sugar in Modern History*. Penguin, 1986, 99–100 ISBN 978-0140092332.
- Lewis Simon L, Maslin MA. The human planet: how we created the anthropocene. In: *Chapter 5 Globalization 1.0, the Modern World*. Pelican, 2018, 172–3 ISBN 978-0241280881.
- Yang Q. Gaining weight by “going diet”? Artificial sweeteners and the neurobiology of sugar cravings. *J Biol Med* 2010;**83**:101–8.
- Cabral TM, Pereira MGB, Falchione AEZ *et al*. Artificial sweeteners as a cause of obesity: weight gain mechanisms and current evidence. *Health* 2018;**10**:700–17.
- DiFelicantonio AG, Coppin RL, Thanarajah SE *et al*. Supra-addictive effects of combining fat and carbohydrate on food reward. *Cell Metab* 2018;**28**(1):33–44.E3.
- Hoch T, Kreitz S, Gaffling S *et al*. Manganese-enhanced magnetic resonance imaging for mapping of whole brain activity patterns associated with the intake of snack food in ad libitum fed rats. *PLoS One* 2013;**8**(2):e55354. <https://doi.org/10.1371/journal.pone.0055354>.
- Institute of Physics Report. *The Health of Physics in UK Food Manufacturing*, 2016 www.iop.org/publications/iop/2016/page_68332.html (retrieved 21 May 2019).
- John B. *Where's the physics in making the humble potato crisp that we all know and love?*, 2016 www.iopblog.org/physics-in-food-and-drink-manufacturing-case-study-crisps/, (retrieved 21 May 2019).
- World Health Organisation *Obesity and overweight*, 2020 <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> (retrieved 12 January 2021).
- The GBD 2015 obesity collaborators health effects of overweight and obesity in 195 countries over 25 years. *N Engl J Med* 2017. <https://doi.org/10.1056/NEJMoa1614362>.
- James W, Philip T, Klim MP. The costs of overweight. *Lancet Public Health* 2017. [https://doi.org/10.1016/S2468-2667\(17\)30068-3](https://doi.org/10.1016/S2468-2667(17)30068-3).
- McKinsey Global Institute *Overcoming obesity: An initial economic forecast*, 2014 <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/how-the-world-could-better-fight-obesity> (retrieved 12 January 2021).
- Panos K, Stacey van der A, Willemien S. *LSE Health* London School of Economics, 2012, <http://www.lse.ac.uk/business-and-consulancy/consulting/assets/documents/diabetes-expenditure-burden-of-disease-and-management-in-5-eu-countries.pdf> (retrieved 12 January 2021).
- Reynaldo M. Improved nutrition in the first 1000 days and adult human capital and health. *Am J Hum Biol* 2017;**29**(2). <https://doi.org/10.1002/ajhb.22952>.
- Public Health England <https://www.gov.uk/government/publications/the-public-health-burden-of-alcohol-evidence-review> 2016 (revised 2018, retrieved 20 May 2019).
- House of Commons Environmental Audit First Report of Session 2017-19 Plastic bottles: Turning back the tide*: <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/339/339.pdf>.
- Coca Cola GB <https://www.coca-cola.co.uk/faq/how-many-cans-of-soft-drink-do-you-produce-every-year> (retrieved 20 May 2019).
- Coca Cola <https://www.coca-cola.co.uk/faq/how-many-cans-of-coca-cola-are-sold-worldwide-in-a-day> (retrieved 20 May 2019).
- BFFP Brand Audit Report, 2020 <https://www.breakfreefromplastic.org/wp-content/uploads/2020/12/BFFP-2020-Brand-Audit-Report.pdf> (retrieved 12 January 2021).
- <https://www.ellenmacarthurfoundation.org/our-work/activities/new-plastics-economy/global-commitment>
- Agriculture & Horticulture Development Board (AHDB) <https://potatoes.ahdb.org.uk/news/potato-production-hits-lowest-level-2012>, AHDB, 2018 (retrieved 21 May 2019).
- Food and Drink Federation PepsiCo Case Study — Carbon and water <https://www.fdf.org.uk/ambition2025-pepsico-carbon-and-water.aspx> 2017 (retrieved 21 May 2019).
- Elmore BJ. Citizen coke: the making of coca cola capitalism. In: *Chapter 1 Tap Water: Packaging Public Water for Private Profit*. W W Norton & Company, 2015, 18 footnote 1. ISBN 978-0-393-24112-9.
- FAO <http://www.fao.org/land-water/water/water-scarcity/en/retrieved>, 7 May 2019.
- Andy H, Francesca H, Fumiko K, Catherine M. Future earth — linking research on health and the environment. *BMJ* 2017;**357**: j2358.
- Annual Report of the Chief Medical Officer. *Health 2040 - Better Health within reach*. In: Chapter 8, 2018, 16.
- HMRC. <https://www.gov.uk/guidance/rates-of-vat-on-different-goods-and-services#food-and-drink-animals-animal-feed-plants-and-seeds>, 2017 (retrieved 7 May 2019).
- Soft Drinks Industry Levy Available at: http://www.legislation.gov.uk/ukxi/2018/41/pdfs/ukxi_20180041_en.pdf, 2018 (accessed 6 June 2019).
- Public Health England. Sugar reduction: The evidence for action. In: *Annexe 2: A Mixed Method Review of Behavior Changes Resulting From Experimental Studies That Examine the Effect of Fiscal Measure Targeted at High Sugar Food and Non-Alcoholic Drink*. London, UK: HMSO, 2015.
- An Chuir Uachtarach The Supreme Court Bookfinders and The Revenue Commissioners Judgment of Mr Justice O'Donnell*. 29 September, 2020.
- Ejlertskov Katrine T, Sharp Stephen J, Martine S *et al*. Supermarket policies on less-healthy food at checkouts: natural experimental evaluation using interrupted time series analysis of purchases. *PLoS Med* 2018. <https://doi.org/10.1371/journal.pmed.1002712>.
- McNeill A, Gravelly S, Hitchman SC *et al*. Tobacco packaging design for reducing tobacco use. *Cochrane Database Syst Rev* 2017;**4**: Art. No: CD011244.
- Williams SN, Nestle M (eds). *Big Food: Critical Perspectives on the Global Growth of the Food and Beverage Industry*. Routledge, Paperback, 2016, 166 ISBN 978-1138309685.2017.
- Ludwig David S, Kushi Lawrence H, Heymsfield MD. Conflicts of interest in nutrition research. *JAMA* 2018;**320**(1):93. <https://doi.org/10.1001/JAMA.2018.5658>.
- Public Health England. *Consultation on the UK Nutrient Profiling Model 2018 review*. London UK: HMSO. Available at:

- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/694145/Annex_A_the_2018_review_of_the_UK_nutrient_profiling_model.pdf (accessed 6 June 2019).
36. Monterio CA, Cannon G, Levy R *et al.* The star shines bright. Food classification. Public Health. *World Nutrition* 2016;**7**(1-3): 28–38.
 37. Forbes <https://www.forbes.com/sites/maggiemcgrath/2018/06/06/worlds-largest-food-and-beverage-companies-2018-anheuser-busch-nestle-and-pepsi-top-the-list/#651471a11b08>, 2018 (retrieved 20 May 2019).
 38. Birmingham Food Council. *UK preparedness for future food system shocks: one Scenario*, 2020 <https://www.birminghamfoodcouncil.org/a-draft-paper-uk-preparedness-for-future-food-system-shocks/> (retrieved 12 January 2021).
 39. Susan G. Making China safe for coke: how Coca-Cola shaped obesity science and policy in China. *BMJ* 2019;**364**:k5050.
 40. Martin MK, Sarah S, David S. The hidden power of corporations. *BMJ* 2019;**364**:l4.
 41. Naughton J. *Rule by robots is easy to imagine — we're already victims of superintelligence firms* *Observer* 25 November, 2018 (retrieved 12 January 2021).