

[Home](#) > [School of Community and Health Sciences](#) > [Academic Departments](#)
> [Public Health, Primary Care and Food Policy](#) > [Food Policy](#) > [Meet the staff](#)
> [Professor Tim Lang \(Infos - Mai 2010\)](#)

Professor Tim Lang

Our address

City University London
Northampton Square
London EC1V 0HB

Tel: +44 (0)20 7040 5060



Title: Professor of Food Policy
Room: C309
Tel: +44 (0)20 7040 8798
Email: t.lang@city.ac.uk

TIM LANG
BA (Hons) Leeds University
PhD Leeds University

Positions

Professor of Food Policy
Programme leader for doctoral programme in Food Policy.

Work Biography

Tim Lang has been Professor of Food Policy at City University since November 2002. He was Director of the Centre for Food Policy at Thames Valley University from 1994 to 2002, before it moved to City University. He was Director of Parents for Safe Food, 1990-1994 and before that Director of the London Food Commission, 1984 to 1990. In the 1980s, he was a lecturer at Preston and Manchester Polytechnics and from the mid 1970s a hill farmer in Lancashire.

Policy involvement

In 2006, he was appointed Natural Resources and Land Use Commissioner on the UK Government's Sustainable Development Commission. He is a regular advisor / consultant to the World Health Organisation at global and European levels. He has been a special advisor to four House of Commons Select Committee inquiries (food standards [twice], globalisation and obesity). In 2006-07, he was an advisor to the Foresight Obesity programme, and since 2005 has been a member of the Royal Institute of International Affairs (Chatham House) 'Food Supply in the 21st Century' Working Party and team. He has been a consultant on many occasions for the World Health Organisation, also for the European Commission and Food & Agriculture Organisation. In 2005-06, he chaired the Scottish NHS Executive's Scottish Diet Action Plan Review. He is a Vice President of the Chartered Institute of Environmental Health and a Fellow of the Faculty of Public Health. In 1999-2005 he was Chair of Sustain, the NGO alliance, of which he was a founder member. He has been a Trustee of Friends of the Earth and was Secretary of the Public Health Alliance, predecessor to the UK Public Health Association.

Research Interests

His core research interests are on trying to develop a public interest analysis centred on human & environmental health, social justice and consumer rights, and analysing the tensions in food policy between competing interests from the state, supply chain and civil society. He has a long interest in exploring issues such as food security, food inequalities and the differentiation between food democracy and food control. He is interested in tensions between national, European and global levels of policy-making.

Academic Role

He is on Editorial Advisory Boards for 3 international journals: *Journal of Epidemiology and Community Health* (since 1998), *Food Service Technology* (since 2000) and *International Journal of Agricultural Sustainability* (since 2002). He is a member of the WHO's Virtual Network of Experts on the Implementation of the Global Strategy on Diet, Physical Activity and Health since August 2005. He was a member of the Advisory Board of the ESRC / AHRC Cultures of Consumption programme, 2002-2006.

Staff



Tim Lang [left] has been Professor of Food Policy at City University London since November 2002. He has worked widely across food and public health, as an academic, in the voluntary sector and as a consultant to local, nation and international bodies. He was Director of the London Food Commission, 1984 to 1990 and Director of Parents for Safe Food, 1990-1994. He was Director of the Centre for Food Policy at Thames Valley University from 1994 to 2002, before moving to City. [\[more\]](#).

David Barling [middle] is a Reader in Food Policy at City University. His areas of work are in food policy and political economy. [\[more\]](#).

Martin Caraher [right] is Reader in Food and Health Policy. [\[more\]](#).

Publications

He is author and co-author of over 120 publications, including 8 books (another in preparation), numerous reports for international bodies and academic journal articles. Since 2002, he has written a monthly column in *The Grocer* as well as occasional pieces for outlets such as *The Times*, *The Guardian*, *THES* and other media.

Publications (since 2001)

Books:

Lang T, Barling D, Caraher M (2009). *Food Policy*. Oxford: Oxford University Press

Millstone, Erik and Tim Lang, eds. (2003 / 2nd edition 2008) *The Atlas of Food*. London: Earthscan (& New York: Penguin & Paris: Autrement) (winner André Simon Food Book of the Year 2003)

Gabriel, Yiannis, Tim Lang (2006). *The Unmanageable Consumer: Contemporary Consumption and its Fragmentation*. London: Sage (2nd edition; 1st edition 1995)

Lang, Tim, Michael Heasman (2004). *Food Wars: the battle for mouths, minds and markets*. London: Earthscan

Millstone, Erik and Tim Lang, eds. (2003). *The Atlas of Food*. London: Earthscan (& New York: Penguin & Paris: Autrement) (winner André Simon Food Book of the Year 2003)

Journal articles / papers / editorials /etc.:

- Lang T (2010). 'From 'value-for-money' to 'values-for-money'? Ethical food and policy in Europe', *Environment and Planning A*, forthcoming
- Lang T (2010). 'Reshaping the Food System for Ecological Public Health', *Journal of Hunger and Environmental Nutrition*, forthcoming
- Lang T (2010). 'Crisis? What Crisis? The Normality of the Current Food Crisis' *Journal of Agrarian Change*, *Journal of Agrarian Change*, 10, 1, January 2010, pp. 92–102.
- Lang T (2009). What President Obama can do in the world, *Public Health Nutrition*, 12, 4, 581-583
- Gabriel Y, Lang T (2008). New Faces and New Masks of Today's Consumer, *Journal of Consumer Culture*, 8, 3, 321–340 DOI: 10.1177/1469540508095266
- Rayner G, Barling D, Lang T (2008) 'Sustainable Food Systems in Europe: Policies, Realities and Futures', *J Hunger and Environmental Nutrition*, 3, 2/3, 145-168 DOI: 10.1080/19320240802243209
- Millstone, E, Lang T (2008). 'Public Health Protection or Regulatory Capture?', *The Lancet*, Vol 372, July 12, 2008, 94-95
- Barling D, Lang T, Sharpe R. Food Capacity: the root of the problem. *Royal Society of Arts Journal* 2008; vol 154, no 5533, pp.22-27.
- Lang T (2007). 'Functional Foods'. *British Medical Journal*, 334, 1015-6. May 19. doi: 10.1136/bmj.39212.592477.BE
- T. Lang, G. Rayner (2007). 'Overcoming policy cacophony on obesity: an ecological public health framework for policymakers', *Obesity Reviews*, 8 (s1), 165–181. doi:10.1111/j.1467-789X.2007.00338.x
- <http://www.blackwell-synergy.com/doi/full/10.1111/j.1467-789X.2007.00338.x>

- Wrieden WL, Anderson AS, Longbottom PJ, Valentine K, Stead M, Caraher M, Lang T, Gray B, Dowler E (2007). 'The impact of a community-based food skills intervention on cooking confidence, food preparation methods and dietary choices - an exploratory trial', *Public Health Nutrition*, 10, 2, February 2007, 203-211 doi: 10.1017/S1368980007246658
http://journals.cambridge.org/download.php?file=%2FPHN%2FPHN10_02%2FS1368980007246658a.pdf&code=0fd7499ee9545f1383c2e95bce65491e
- Rayner, Geof, Corinna Hawkes, Tim Lang, Walden Bello (2006). Trade liberalization and the diet transition: a public health response. *Health Promotion International*, 21(Supplement 1):67-74; doi:10.1093/heapro/dal053
http://www.heapro.oxfordjournals.org/cgi/content/abstract/21/suppl_1/67 or http://www.who.int/healthpromotion/conferences/hpr_special%20issue.pdf (pdf)
- Lang T (2006). 'Food, the law and public health: Three models of the relationship', *Public Health*, 120, October, 30-41 doi:10.1016/j.puhe.2006.07.013
http://www.nuffieldtrust.org.uk/uploadedFiles/Grants/Lang_30-40.pdf (pdf)
- Heasman M, Lang, T, (2006). 'Plotting the Future of Food: putting ecologically driven, community-based food policy at the heart of Canada's food economy'. *Making Waves*, 17, 2, summer, 2-17 <http://www.cedworks.com/files/pdf/free/MW170212.pdf> (pdf)
- Lang T, Heasman M (2005). 'Food Wars', *Food International Executive Outlook*, 5, 1, 26-41
- Hewson C, T Lang (2005). 'Human and animal health: strengthening the links: Animal and human case for reforming current food policies', *British Medical Journal*, 331, 1268 (26 November)
- Lang T, Rayner G (2005). 'Obesity: a growing issue for European policy?' *Journal of European Social Policy*, 15, 4, 301-327 doi: 10.1177/0958928705057263
- Lang T (2005). 'Food Control or Food Democracy?: re-engaging nutrition to civil society, the state and the food supply chain', *Public Health Nutrition*, 8, 6A, 730-737 DOI: 10.1079/PHN2005772
<http://www.ingentaconnect.com/content/cabi/phn/2005/00000008/I0010si6/art00011>
- Pretty JN, Ball AS, Lang T, Morison JIL, (2005) 'Farm Costs and Food Miles: An Assessment of the Full Cost of the UK Weekly Food Basket', *Food Policy*, 30, 1, 1-20
- Lang T, Rayner G, Rayner M, Barling D, Millstone E (2005). 'Policy Councils on Food, Nutrition & Physical Activity: the UK as a case study', *Public Health Nutrition*, 8, 1, 11-19. DOI: 10.1079/PHN2004654
http://journals.cambridge.org/download.php?file=%2FPHN%2FPHN8_01%2FS1368980005000042a.pdf&code=ab684a21159e63dadb451e4f5abcf862

- Lang T, Heasman M (2004). 'Diet and Nutrition Policy: A clash of ideas or an investment?', *Development*, 47, 2, June, pp 64-74 DOI: 10.1057/palgrave.development.1100031
- Lang, T (2004). 'European Agricultural Policy: is health the missing link?', *Eurohealth*, 10, 1, 4-8
- Lang T (2003). 'Editorial: FAO-WHO Launch expert Report', *Public Health Nutrition*, 6 (4), 323-325
- Lang, T. (2003). 'Food Industrialisation and Food Power: Implications for Food Governance', *Development Policy Review*, 21, 5-6, 555-568. DOI: 10.1111/j.1467-8659.2003.00223.x
<http://www.ingentaconnect.com/content/bpl/dpr/2003/00000021/F0020005/art00002>
- Lang T, Rayner G (2003). 'Food and Health Strategy in the UK: A Policy Impact Analysis', *Political Quarterly*, 74, 1, 66-75 DOI: 10.1111/1467-923X.00513
- Barling D, Lang T (2003). 'The Politics of Food', *Political Quarterly*, 74, 1, 4-7 DOI: 10.1111/1467-923X.00506
- Barling D, Lang T (2003). 'A Reluctant Food Policy?: The First Five Years of Food Policy under Labour', *Political Quarterly*, 74, 1, 8-18. DOI: 10.1111/1467-923X.00507
- Barling D, Lang T, Caraher M (2002). 'Joined-up Food Policy? The trials of Governance, Public Policy and the Food System', *Social Policy & Administration*, 36, 6, 556-575
- Rayner G, Lang T (2002). 'Public Health after globalisation: injecting health into the post-Washington consensus', *Eurohealth*, 8, 3, 21-25
- Lang T, Caraher M (2001). Is there a culinary skills transition?: data and debate from the UK about changes in cooking culture. *Journal of the Home Economics Institute of Australia*, 8, 2, 2-14
- Lang T, Barling D, Caraher M (2001). 'Food, Social Policy and the Environment: Towards a New Model', *Social Policy and Administration*, 35, 5, 538-558
- Lang T (2001). 'Public Health and colonialism: a new or old problem?', *Journal of Epidemiology & Community Health*, 55, 162-163
- Hare C, Kirk D, Lang T (2001). 'The food shopping of older consumers in Scotland: critical incidents', *International Journal of Retail and Distribution Management*. 29, 1, 25-40
- Lang T (2001). 'Putting Policy into Practice: a commentary on the report of Eurodiet working party 4', *Public Health Nutrition*, 4, 1(A), February, 112-113.

Reports & Papers:

- Lang T (2009) Reshaping the Food System for Ecological Public Health. Background Paper for: 'Food Systems and Public Health: Linkages to Achieve

Healthier Diets and Healthier Communities', Airlie Center, Warrenton, Virginia, USA, April 1-3, 2009

-
- Lang T (2009) How new is the world food crisis? Thoughts on the long dynamic of Food Democracy, Food Control & Food Policy in the 21st century. Background paper to Conference: Visible Warnings: the World Food Crisis in Perspective. April 3-4, Cornell University, Ithaca NY, USA
- Dibb S, Eppel S, Lang T, Rimmer H (2008). Green, Healthy and Fair: a review of government's role in supporting sustainable supermarket food. London: Sustainable Development Commission. February <http://www.sd-commission.org.uk/pages/supermarkets.html>
- Barling D, Sharpe L, Lang T (2008). Rethinking Britain's Food Security. Report for Soil Association. London: Centre for Food Policy. <http://www.soilassociation.org/LinkClick.aspx?fileticket=wCYoHYSHsy8%3D&tabid=387>
- Barling D, Lang T, Rayner G (2008). Current trends in food retailing and consumption and key choices facing society in Rudy Rabbinge and Anita Linnemann, eds, Forward Look on European Food Systems in a Changing World. Final Report to European Science Federation (ESF/COST). April 2008 pp117-136
- Barling D, Sharpe L, Lang T (2008). Towards a National Sustainable Food Security Policy. Report on a project to map the policy interface between Food Security and Sustainable Food Supply for Esmee Fairbairn Foundation. London: Centre for Food Policy.
- Davis, Laura; Elizabeth Dowler; David Hunter; Tim Lang; Kevin Morgan; Veronica Barry (2007). *Food and Well Being: A Review of the Nutrition Strategy for Wales 2003-2006. Final Report, May 2007. Report to Food Standards Agency Wales and the Welsh Assembly Government. Coventry: University of Warwick.*
- Lang T, Dowler E, Hunter DJ (2006). *Review of the Scottish Diet Action Plan 1996-2005: progress and impacts.* Chair: T Lang. Report 2005/ 2006 RE036. Edinburgh: NHS Health Scotland.
<http://www.healthscotland.com/understanding/evaluation/policy-reviews/review-diet-action.aspx>
- Lang T, Rayner G (2006). *Obesity Policy: a framework for intervention. A Briefing for Foresight Obesity programme.* London: Office of Science & Technology
- Lang T (2006) *Agriculture, Food, and Health: Perspectives on a Long Relationship*, Washington DC: International Food Policy Research Institute 2020 Focus Brief no 2. May <http://www.ifpri.org/2020/focus/focus13.asp#dl>
- Lang T, Rayner G, Kaelin E (2006). *The Food Industry, Diet, Physical Activity and Health: a review of reported commitments and practice of 25 of the world's largest*

food companies. Report to World Health Organisation. London: Centre for Food Policy, City University. April

- Lang T, Rayner G, Kaelin E, Crossley R, Backman P (2005). *The Food Industry, Diet, Physical Activity and Health: a review of reported commitments and practice of 25 of the world's largest food companies. A report to the World Health Organisation.* London: Centre for Food Policy, City University. December.
- Lang T (2004). *Food and Health Wars: a modern drama of consumer sovereignty*, Economic & Social Research Council & Arts & Humanities Research Board Cultures of Consumption Programme, Cultures of Consumption Working Paper no 14. London: Birkbeck College, June, 39pp
http://www.consume.bbk.ac.uk/working_papers/Lang%20talk%20final.doc (doc)
- Barling D, Lang T (2003). *Codex, the European Union and Developing Countries: an analysis of developments in international food standards setting.* Report of Dept for International Development. London: City University Institute of Health Sciences
- Lang T (2003), 'Injecting Health into the CAP' in Elinde L.S. *Public health aspects of the EU Common Agricultural Policy.* Stockholm: National Institute of Public Health / Statens Folkhalsainstitut pp 91-96
http://www.fhi.se/shop/material_pdf/eu_inlaga.pdf (pdf)
- Hitchman C, Harrison M, Christie I, Lang T (2002). *Inconvenience Food.* London: Demos
- Hawkes C, Lang T, Caraher M (2002). *Trade Liberalization and Malnutrition.* Background Paper for United Nations ACC/SCN. Centre for Food Policy. March (available from the Sub-Committee on Nutrition).
- Lang T, Rayner G, eds (2002). *Why Health is the key to Farming and Food.* London: UK Public Health Association, Chartered Institute of Environmental Health, Faculty of Public Health Medicine, National Heart Forum and Health Development Agency
- Lang T, Robertson A, Nishida C, Caraher M, Clutterbuck C (2001). *Intersectoral food and nutrition policy development: A Manual for Decision-makers.* Report E73104. Copenhagen: World Health Organisation.
- Lobstein T, Millstone E, Lang T, van Zwanenberg P (2001). *The Lessons of Phillips Questions the UK Government should be asking in response to Lord Phillips' Inquiry into BSE.* A Discussion Paper. London: Food Commission/Centre for Food Policy/Science Policy Research Unit University of Sussex.
-

Chapters in books:

- 'Sustainable Development' in Yiannis Gabriel (2008) *Organizing Words: a critical thesaurus for social and organizational studies*. Oxford: Oxford University Press. pp292-294
- Sharpe R P, Barling D, Lang T (2008) 'Ethical traceability in the UK wheat-flour-bread chain', in: Christian Coff, David Barling, Michiel Korthals, Thorkild Nielsen, eds. *Ethical Traceability and Communicating Food*. New York: Springer pp 125-165
- Lang T & Barling D (2007) "The Environmental Impact of Supermarkets: mapping the terrain and the policy positions in the UK", in D. Burch and G. Lawrence, eds., *Supermarkets and Agri-Food Supply Chains: Transformations in the Production and Consumption of Foods*. Cheltenham: Edward Elgar: 192-215
- Lang, Tim and Martin Caraher (2006). Influencing international policy. In: D Pencheon, C Guest, D Melzer, J A M Gray *Oxford Handbook of Public Health Practice*. Oxford: Oxford University Press. 364-371
- Lang, Tim (2006). 'Achieving Access to Ethical Food: Animal and Human Health Come Together' In: Jacky Turner and Joyce d'Silva, eds. *Animals, Ethics and Trade: the Challenge of Animal Sentience*. London: Earthscan. 261-272
- Lang, Tim (2006) 'What is Food and Farming For? - The (Re)emergence of Health as a Key Policy Driver' In: Frederick H. Buttel and Philip McMichael (eds) *New Directions in the Sociology of Global Development*, New York: Elsevier Rural Sociology and Development series, vol 11, 123-144
- Lang, Tim & Yiannis Gabriel (2005). 'A Brief History of Consumer Activism' In: Rob Harrison, Terry Newholm, Deidre Shaw, eds, *The Ethical Consumer*. London: Sage. 39-53
- Lang T (2005). 'Food, trade and health' In: J Pomerleau, M McKee, eds, *Issues in Public Health*. Maidenhead: Open University Press. 191-208
- Caraher, Martin, John Coveney & Tim Lang (2005) 'Food, Health and Globalisation: is health promotion still relevant?' In: A. Scriven & S Garman, eds. *Promoting Health: Global Perspectives*. Basingstoke: Palgrave. 90-105
- Barling D, Lang T (2005). 'Trading on health: north-south production/consumption tensions and the governance of international food standards' In: N. Fold & B. Pritchard eds. *Cross continental food commodity chains*. London: Routledge. 39-51
- Lang, Tim (2002) 'Can the challenges of poverty, sustainable consumption and good health governance be addressed in an era of globalization?' In: Benjamin Cabellero and Barry Popkin, eds, *The Nutrition Transition*. New York: Elsevier, 51-70
- Barling D, Lang, T, Caraher M (2003). 'Joined-up Food Policy? The Trials of Governance, Public Policy and the Food System' in Dowler, E, Finer, C, eds. In Elizabeth Dowler, Catherine Jones Finer, eds. *The Welfare of Food: Rights and Responsibilities in a Changing World*. Oxford: Blackwell

- Lang T, Barling D, Caraher M (2002). 'Food, Social Policy and the Environment: Towards a New Model', chapter 6 in: Cahill M, Fitzpatrick T, eds. *Environmental Issues and Social Welfare* Oxford: Blackwell. 70-91
- Lang, Tim (2001). 'Trade, public health and food' In: M McKee, P Garner & R Stott, eds, *International Co-operation in Health*. Oxford: Oxford University Press, 81-108
- Lang T, Caraher M (2001). 'International Public Health' In: D Pencheon, D Melzer, eds. *Oxford Textbook of Public Health*. Oxford: Oxford University Press. 168-176

(Informationen 2008/9)

Tim Lang PhD FFPH
 Professor of Food Policy
 Dept Health Management & Food Policy
 Institute of Health Sciences
 City University
 Northampton Square
 London EC1V 0HB
 UK
 tel (dir): +44-(0)20-7040-8798
 fax: +44-(0)20-7040-8595
 tel (main): +44-(0)20-7040-5060
 email: t.lang@city.ac.uk
 our general website: www.city.ac.uk/ihs/hmfp/foodpolicy
 MSc in Food Policy: www.city.ac.uk/ihs/hmfp/foodpolicy/msc



Tim Lang has been Professor of Food Policy at City University since November 2002. He has worked widely across food and public health, as an academic, in the voluntary sector and as a consultant to local, nation and international bodies. He was Director of the London Food Commission, 1984 to 1990 and Director of Parents for Safe Food, 1990-1994. He was Director of the Centre for Food Policy at Thames Valley University from 1994 to 2002, before moving to City University.

Since gaining a PhD in Social Psychology in 1975 from Leeds University, he has specialised in developing food policy analysis and debate in the UK and throughout the world, linking human and environmental health with issues of social justice and culture. He has contributed to the reform of UK food governance, both as a commentator and researcher. In a former life, he was a hill farmer in Lancashire, so has some practical experience of agriculture at the hard end!

Tim has researched widely in food policy, specialising in public & environmental health, trade and inequality. He is author and co-author of over 120 publications, including 8 books, numerous reports for international bodies and academic journal articles.

A major theme of his work has been the promotion of the public interest in food policy. He has strong links with the voluntary sector in which he worked for a decade (1984-94). His principal links are as chair of Sustain, the UK alliance of 100+ NGOs. He has been a Trustee of Friends of the Earth and of the Public Health Alliance, predecessor to the UK Public Health Alliance. He is a Vice-President of the Chartered Institute of Environmental Health.

Tim has been an advisor to some statutory public groups and bodies, ranging from Parliamentary Committees in London and Brussels to international agencies. Since 1996, he has been a regular consultant to the World Health Organisation. He was part of the WHO European Region's core team producing the new food and nutrition policy. With Dr Aileen Robertson of WHO and Martin Caraher at

City University, he developed, piloted and produced a training module on food policy, now developed for global use with WHO Geneva.

From 1999-2000, he was an expert advisor to the French Health Presidency of the European Union which introduced a new nutrition initiative to the EU in December 2000. In 1999, he also completed with an international team a review of the EU proposals to reform food and health procedures and to set up a European Food Safety Authority. In the 1980s he was a food policy advisor to the European Commissioner for the Environment.

He sits on the New Opportunities Fund advisory panel the 5-a-day and School Fruit Schemes and is a member of the UK Government's Dept Environment, Food and Rural Affairs (DEFRA) Organic Action Team. He was also a member of the DEFRA Horizon Scanning exercise (2001-02).

He was a member of the new Food Standards Agency's Task Force on Regulation and Small Business 92000-2001). He was a member of the Social Exclusion Unit's Policy Action Team 13 on Access to Shops (1998-2000) and was a member of two government Nutrition Task Force project teams 1994-96 one on School Meals, the other on Low Income. He has worked on food poverty and retail power for two decades. In 1995-97, he was a member of the independent Commission on Environmental Health which reviewed forward thinking on the state of health for 2020 and called for reform of health governance.

He is on the Editorial Board of the Journal of Epidemiology & Community Health, Global Change and Human Health, Food Technology Journal and the Food Magazine. He is a Fellow of the Faculty of Public Health Medicine, a Fellow of the Royal Society of Arts and a member of the Guild of Food Writers. He has published many academic articles as well as in more popular sources. He appears frequently on UK and international media. He writes widely on food matters, from the state of cooking skills and consumerism to the health and cultural impact of EU food policies.

With Erik Millstone, he is co-wrote and co-edited The Atlas of Food (Earthscan, London, 2003). With Yiannis Gabriel he wrote The Unmanageable Consumer (Sage, London, 1995). He is finalising Food Wars: the global health battle for minds, mouths and markets (Earthscan, 2003) on the impact of globalisation on food, health and culture. He currently writes a column in The Grocer as well as occasional pieces for outlets such as the Times Higher Education Supplement and other media.

In 2001 he was elected a Fellow of the Faculty of Public Health Medicine of the Royal Colleges of Physicians, one of the first group of non-medics ever to be awarded this status. He won a Caroline Walker Award in 2002.

SEE! Food Wars: the global battle for mouths, minds and markets by Tim Lang & Michael Heasman, London: Earthscan October 2004, 362pp, ISBN 185383-7024, £19.99 (UK) (jetzt in BFEL – Bibliothek) P117

<http://shop.earthscan.co.uk/ProductDetails/mcs/productID/188/groupID/6/categoryID/3/v/8375addf-c413-4b0c-8b12-231e751541ad>

Also [The Atlas of Food](#), eds Erik Millstone & Tim Lang, London: Earthscan (NY: Penguin; Paris: Autrement), 2003. Winner of the Andre Simon Food Book of the Year award in Feb 2004. £11.99 (UK)

<http://shop.earthscan.co.uk/ProductDetails/mcs/productID/23/groupID/6/categoryID/3/v/8375addf-c413-4b0c-8b12-231e751541ad>

Cooking

Lang T, Caraher M (2001). Is there a culinary skills transition?: data and debate from the UK about changes in cooking culture. *Journal of the Home Economics Institute of Australia*, 8, 2, 2-14

Lang T, Dixon P, Caraher M and Carr-Hill R (1999). *The contribution of Cooking to Health Inequalities*. Health Education Authority, London

Caraher M, Lang T, Dixon P and Carr-Hill R (1999). 'The state of cooking in England: The relationship of cooking skills to food choice'. *British Food Journal*. 101, 8, 590-609

Caraher M, Lang T (1999). Can't cook, Won't cook: a review of cooking skills and their relevance to health promotion. *International Journal of Health Promotion and Education*, 37, 3, 89-100

Caraher M, P Dixon, T Lang and R Carr-Hill (1998). 'Access to healthy foods: part 1. Barriers to accessing health foods: differentials by gender, social class, income and mode of transport', *Health Education Journal*, 1998, 57, 191-201

Lang T, Caraher M (1998). 'Access to healthy foods: part II. Food poverty and shopping deserts: what are the implications for health promotion policy and practice?', *Health Education Journal*, 1998, 57, 202-211

Caraher M, Lang T (1995). *Evaluating cooking skills classes: Towards an Evaluation Strategy for Health Promotion Wales and Get Cooking! Classes*. Cardiff: Health Promotion Wales

Culture, Consumption and Markets

- Lang T (2001). 'Public Health and colonialism: a new or old problem?', *J Epidemiology & Community Health*, 55, 162-163
- Hare C, Kirk D, Lang T (2001). 'The food shopping of older consumers in Scotland: critical incidents', *International Journal of Retail and Distribution Management*. 29, 1, 25-40
- Robinson N, Caraher M, Lang T (2000). 'Access to shops: the views of low income shoppers', *Health Education Journal*, 59, 2, 121-136
- Caraher M, Lang T, Dixon P (2000). 'The influence of TV and celebrity chefs on public attitudes and behaviour among the English public', *Journal of the Association for the Study of Food and Society*, 4, 1, 27-46
- Lang, T (1999). 'Food education and the citizen: whose responsibility?', *J Consumer Studies & Home Economics*, 23, 3, September, 198
- Hare C, Kirk D, Lang T (1999). 'Identifying the expectations of older food consumers: more than a "shopping list" of wants' *Journal of Marketing Practice: Applied Marketing Science*. 5, 213-232
- Caraher M, Dixon P, Lang T, Carr-Hill R (1999). 'The state of cooking in England: the relationship of cooking skills to food choice', *British Food Journal*, 101, 8, 590-609
- Lang T (1999). 'Plots of Resistance: Food Culture and the British', in Ken Worpole, ed., *Richer Futures*, London: Earthscan, 127-144
- Caraher M (1999). 'Market economy', *Streetwise*, 10, 2, 26-27.
- Lang T (1998). 'Towards a food democracy' in Sian Griffiths, ed. (1998). *Consuming Passions*. Manchester: Manchester University Press. 13-24
- Lang T (1997). 'Unmanageable consumers', *Chemistry and Industry*, 17 March, 236
- Lang T, Gabriel Y (1996). 'Mad Consumers?', *Soundings*, 1, 3, June, 85-92
- Devine, Caroline, Tim Lang, Jeanette Longfield, Orla Maguire, Mike Rayner (1995). *An Investigation into the Nutritional Quality of School Meals in Northern Ireland*, Belfast: Northern Ireland Chest, Heart and Stroke Association
- Gabriel, Yiannis, Tim Lang (1995). *The Unmanageable Consumer: Contemporary Consumption and its Fragmentation*. London: Sage
- Lang T, Gabriel Y (1995). 'The Consumer as Citizen', *Consumer Policy Review*, 5, June, 35-41
- Lang T (1995). 'Mistaken Identity', *Consumer Policy Review*, 5, 1, Jan/Feb, 38-9
- Lang T (1985). 'Food and Welfare: Reframing the Farming and Deprivation Issues', in Lowe, P., (ed.). *Deprivation and Welfare in Rural Areas*. Norwich: Geo-Books

Food System

- 'Hawkes C, Lang T, Caraher M (2002). *Trade Liberalization and Malnutrition*. Background Paper for United Nations ACC/SCN. Centre for Food Policy. March (to be published by the United Nations' Advisory Co-ordination Committee Sub-Committee on Nutrition later in 2002).
- Trade, public health and food' (2001). in McKee M, Garner P, Stott R, eds, *International Co-operation in Health*. Oxford: Oxford University Press, 81-108
- Peters T, Lang T (2000). *The Crisis in UK Local Food Retailing*. London: Centre for Food Policy. Discussion Paper 11
- Lang, Tim (1999). 'The complexities of globalization: The UK as a case study of tensions within the food system and the challenge to food policy', *Agriculture and Human Values*, 16, 169-185
- Raven, Hugh, Tim Lang (1995). *Off our Trolleys?: food retailing and the hypermarket economy*. London: Institute for Public Policy Research
- Hines, Colin, Tim Lang (1995). *Employment and the Culture of Insecurity*, Employment Policy Institute, Economic Report, 9, 5, June
- Lang Tim, Hugh Raven (1994). 'From Market to Hypermarket: Food Retailing in Britain', *The Ecologist*, vol 24, no 4, July/August, 124-129
- Lang Tim, Hines Colin (1993). 'The New Protectionism', *The Ecologist*, vol 23, no 3, May/June, 82-3

Environment, Sustainability, Genetic Modification & Biotechnology

- T. Lang, D. Barling, M. Caraher (2002). "Food, Social Policy and the Environment: Towards a New Model.", chapter 6 in Michael Cahill, Tony Fitzpatrick, eds. *Environmental Issues and Social Welfare*. Oxford: Blackwell Publishing: 70-90.
- Lang T, Barling D, Caraher M (2001). 'Food, Social Policy and the Environment: Towards a New Model', *Social Policy and Administration*, 35, 5, 538-558

- Barling D. (2002) "The European response to GM foods: rethinking food governance", in B. Bailey & M. Lappe eds. *Engineering the farm: The Social and Ethical Aspects of Agricultural Biotechnology*, Washington DC: Island Press.
- Barling D. (2001) "supply chains perspectives: the case of GM food ". In Eastham, Sharples and Ball (eds). *Food Supply Chain Management – A Hospitality and Retail Perspective*. Oxford: Butterworth-Heinemann: 245-256.
- Barling D (2000). "Regulating GM foods in the 1980s and 1990s." In David F. Smith and Jim Phillips eds. *Food, Science, Policy and Regulation in the Twentieth Century: International and Comparative Perspectives*. Routledge Studies in the Social History of Medicine 10. London: Routledge. 239-256.
- Barling D (2000). "GM crops, Biodiversity and the European Agri-environment: regulatory lacunae and revision." *European Environment* 10, (4): 167-177
- Lang T (1999). 'Towards a Sustainable Food Policy' in Tansey, G, J d'Silva, eds. *The Meat Business*. London: Earthscan. 120-135
- Barling D (1999). "Biodiversity – threatened by GMOs?" *Consumer Voice*, 4. Directorate General Health and Consumer Protection, European Commission. Brussels
- Lang T (1999). 'Local Sustainability in a Sea of Globalisation?: The Case of Food Policy' in Kenny Michael, James Meadowcroft, eds. *Planning Sustainability* London: Routledge.199-225
- Barling D (1999). "Genetic modification and food: the policy challenges". *Public Health Forum*, March 1999: 6-7.
- Barling D, Lang T (1999). "European public policy on genetic modification of agricultural products and food: lessons to be learned over balancing public health, consumer confidence and commerce." *European Journal of Public Health*, 9, (3): 163-5.
- Barling, D., H. de Vriend, J. Cornelese, B. Ekstrand, E. Hecker, J. Howlett, J. Jensen, T. Lang, S. Mayer, K. Staer, R. Trop (1999). "The social aspects of Food Biotechnology: A European view", *Environmental Toxicology and Pharmacology*, 7: 85-92
- Barling D (1997). "Regulatory conflict and the marketing of Agricultural Biotechnology in the European Community", in G. Stoker and J. Stanyer, eds. *Contemporary Political Studies 1997*: 1040-8. Political Studies Association of the United Kingdom
- Barling D (1996). "Environmental sustainability or commercial viability? The evolution of the EC regulation on genetically modified foods", *European Environment*, 6, (2): 48-54.
- Barling D (1995). "Profile: The European Community and the legislating of the application and products of genetic modification technology", *Environmental Politics*, 4, (3): 467-473.
- Lang T (1995). 'Acceptance or Rejection? A Consumer view on Genetically Engineered Animal Products', in Peter Wheale, Ruth McNally, eds. *Animal Genetic Engineering: Of Pigs, Oncomice and Men*. London: Pluto. 84-96
- Lang Tim, Charlie Clutterbuck (1991). *P is for Pesticides*. London: Ebury
- Barling D (1993). "Genetic Modification and the Environment: EC Directives and the genesis of UK regulation." *European Environment*, 3, (4): 17-21.

Food Governance, Food Safety & Trade

- T. Lang and G. Rayner eds (2002). "[Why Health is the Key to the Future of Food and Farming](#)." A Report on the Future of Farming and Food, London: Thames Valley University (Faculty of Health and Human Sciences, Centre for Food Policy) & UK Public Health Association.
- Barling D. (2002 in press) "Impact of international policies (CAP) and agreements (WTO) on the development of organic farming." in F. den Hond, P. Groenewegen & N. van Straalen eds. *Pesticides: Problems, Improvements, Alternatives*. Oxford: Blackwell Science Publishers.
- Lobstein T, Millstone E, Lang T, van Zwanenberg P (2001). [The Lessons of Phillips Questions the UK Government should be asking in response to Lord Phillips' Inquiry into BSE](#). A Discussion Paper. London: Food Commission/Centre for Food Policy/Science Policy Research Unit University of Sussex.
- (2001) E. Millstone. T. Lang, A. Naska, AM. Eames, D. Barling, P. van Zwanenberg, A. Trichopoulou. "European Policy on Food Safety on Food safety – Comments and Suggestions on the Food Safety White Paper". *Trends in Food Science and Technology*, 11 (12): 458-466.
- Lang T (forthcoming 2001). 'Trade, public health and food' in McKee M, Garner P, Stott R, eds, *International Co-operation and Health*. Oxford: Oxford University Press
- Lang T, Caraher M (2001). 'Influencing International Policy' in Pencheon D, Melzer D, eds. *Oxford Textbook of Public Health*. Oxford: Oxford University Press, 168-176
- Trichopoulou A, Millstone E, Lang T, Eames M, Barling D, Naska A, van Zwanenberg P (2000). *European Policy on Food Safety*, Luxembourg: European Parliament Directorate General for Research Office for Science and Technology Options Assessment (STOA). September 2000. PE292.026/Fin.St.

Trichopoulos A, Millstone E, Lang T, Eames M, Barling D, Naska A, van Zwanenberg P (2000). *European Policy on Food Safety*, Report to Science & Technology Options Assessment (STOA), Luxembourg: European Parliament

Lang T, Barling D (2000). "Memorandum: A European Food Authority", in *House of Lords Select Committee on the European Union, A European Food Authority, Session 1999-2000, 7th Report, HL paper 66*. London: The Stationary Office: 34-5.

Barling D, Henderson R (2000). "Safety First? A map of public sector research into GM food and food crops in the UK". *Centre for Food Policy Discussion Paper 12*. London: Thames Valley University.

Lang Tim (1999). 'Diet, health and globalisation: 5 key questions', *Proceedings of the Nutrition Society*, 58, 2, 335-343

Rosdahl N, Lang T (1999). 'Contamination of Food' in Weil O, McKee M, Brodin M, Oberlé D, eds. *Priorities for public health action in the European Union*. Vandoeuvre-les-Nancy: Société Française de Santé Publique. 157-160

Lang Tim (1999). 'The new GATT Round: Whose development? Whose health?', *Journal of Epidemiology and Community Health*. 1999, 53, 681-682

Barling D (1999). "The Impact of Health, Hygiene, Food Safety and Environmental Sustainability on Food and Farming related enterprises: Towards a new Food Policy," in *The World of Co-operative Enterprise 1999*: 143-152. Long Hanborough, Plunkett Foundation

Lang T (1999). 'Food as a public health issue' in Griffiths, Sian, David Hunter, eds. *Perspectives in Public Health*. Oxford: Radcliffe Medical Press. 47-58

Lang Tim (1998). 'Systems of food safety administration', *European Safety Newsletter*, 60, August/September, 7-9

Lang Tim (1998). 'Sustainable food: a challenge for the next fifty years' in 'For the common good: 150 years of Public Health', *Environmental Health Journal*, June, 34-5

Lang T (1998). 'BSE and CJD: Recent Developments' in Scott Ratzan, ed. *Mad Cow Crisis: Health and Public Good*. London: Taylor and Francis. 65-85

Lang T (1998). 'Food Policy for the 21st century' in Koc M, MacRae R, Mougeot L J A, Welsh J, eds. *For hunger-proof cities: sustainable urban food systems*. Ottawa: International Development Research Centre / IDRC Books. 216-224

Barling D (1998). "In or out through the policy window? The European Commission and the Reform of Food Safety", in A. Dobson and J. Stanyer, eds. *Contemporary Political Studies 1998*: 45-55. Political Studies Association of the UK. ISBN 0 9523150 9 2

Lang Tim (1997). 'A fresh start for food standards', *Science and Public Affairs*, Autumn, 33-34

Lang T, Millstone E, Rayner M (1997). *Food standards and the state: a fresh start*. Discussion Paper 3, London: Centre for Food Policy, April

McKee Martin, Lang Tim (1997). 'Food for independence', *British Medical Journal*, 13 February, 314, 459

McKee Martin, Lang Tim, Jennifer Roberts (1996). 'Deregulating health: policy lessons from the BSE affair'. *Journal of the Royal Society of Medicine*, 1996, 89, 424-426

Hildyard N, Hines C, Lang T (1996). 'Who competes?: Changing landscapes of corporate control', *The Ecologist*, 26, 4, 125-144

Lang Tim (1996). *Bovine Spongiform Encephalopathy, Public Health and Food Safety: lessons for European policy*. Copenhagen: World Health Organisation. June

McKee M, Lang T (1996). 'Secret Government: the Scott report'. *British Medical Journal*, 312, 24 February, 455-6

Lang T, Millstone E, Raven H, Rayner M (1996). *Modernising UK food Policy: the case for reform of the Ministry of Agriculture, Fisheries and Food*. Discussion Paper 1. London: Centre for Food Policy. July

Lang Tim (1996). BSE and UK food policy: the policy lessons to be learned. Memorandum of evidence to Agriculture and Health Committees, March 1996. in Agriculture and Health Committees. *Bovine Spongiform Encephalopathy (BSE) and Creutzfeld-Jakob Disease (CJD): recent developments*. HC 331. London: HMSO. pp 139-149

Avery N, Drake M, Lang T (1993). *Cracking the Codex: a report on the Codex Alimentarius Commission*, London: National Food Alliance. May

Avery N, Drake M, Lang T (1993). 'Codex Alimentarius', *The Ecologist*, vol 23, no 3, May/June, 110-2

Lang T (1992). *Food fit for the World?: how the GATT food trade talks challenge public health, the environment and the citizen*, SAFE and Public Health Alliance, London, March (2nd ed, February 1993)

Lang T (1992). 'Food Policy and Public Health', *Public Health*, 106, March, (reprinted in Ashton J, ed, *Health in our time?: the William Henry Duncan Memorial Lectures*, Preston: Carnegie Publishing, 1997.)

Bloomfield L, Webb T and Lang T, 1990, 'Food Irradiation: a public health issue?', *British Journal of Nutritional Medicine*, vol 1, 75-80

Webb Tony, Lang Tim (1990). *Food Irradiation: the Myth and the Reality*. Wellingborough: Thorsons. (2nd edition; translated into 5 languages)
Webb T, Lang T (1989) 'Food irradiation', *The Lancet*, March 4, 498.

Food, Nutrition and Public Health

Lang T (2001). 'Public Health and colonialism: a new or old problem?', *Journal of Epidemiology & Community Health*, 55, 162-163
Lang T (2001). 'Putting Policy into Practice: a commentary on the report of Eurodiet working party 4', *Public Health Nutrition*, 4, 1(A), February, 112-113
Lang T (1999). 'Food and nutrition' in Weil O, McKee M, Brodin M, Oberlé D, eds. *Priorities for public health action in the European Union*. Vandoeuvre-les-Nancy: Société Française de Santé Publique. 138-156
Robertson A, Lang T (1998). *Food, nutrition and health policy in the Russian Federation: report of a workshop October 1997*. Copenhagen: World Health Organisation Regional Office for Europe
Lang Tim (1995). 'The contradictions of food labelling policy', *Information Design Journal*, 8, 1, 3-16
Whitehead M, P Nordgren P, eds, (1996). *Health Impact Assessment of the EU Common Agricultural Policy*. A Policy report of the Swedish National Institute for Public Health, Stockholm, November.

Food Policy (general)

Millstone, Erik and Tim Lang, eds. (2002/03/forthcoming). *Food Atlas*. London: Earthscan (& New York: Penguin)
Lang Tim, Heasman Michael (2002/3 forthcoming). *Food Wars: the global competition for mouths, minds and markets*. London: Earthscan
Lang T, Rayner G, eds (2002). [Why Health is the key to the future of Food and Farming](#). London: UK Public Health Association, Chartered Institute of Environmental Health, Faculty of Public Health Medicine, National Heart Forum and Health Development Agency
(2001) T. Lang, D. Barling, M. Caraher "Food, Social Policy and the Environment: Towards a new model." *Social Policy and Administration*, 35 (5): 538-558.
Waltner Troews D, Lang T (2000). 'A new conceptual base for food and agriculture: the emerging model of links between agriculture, food, health, environment and society', *Global Change and Human Health*, 1, 2: 116-130
Lang T (2000). 'The state of UK food policy', *Radical Statistics*, 73, 42-51
Lang Tim (1998). 'Time to Reform CAP on Health Grounds?', *Eurohealth*, 4, 2, Spring, 3-5
Lang Tim (1998). 'Food Policy: time to change course?', *RSA Journal*, 145, 5484, 1 / 4, 109-118
Lang Tim (1997). 'Getting food right', *Soundings*, special issue: 'The Next Ten Years', September, 77-87
Lang T (1997). *Food Policy for the 21st century: can it be both radical and reasonable?* Discussion Paper 4, London: Centre for Food Policy, April
Lang T (1997). 'Food Policy for a new Millennium', *Proceedings of the Conference of the New Zealand Dietetic Association*, 2, 5-12
Lang Tim, Hines Colin (1993). *The New Protectionism*. London: Earthscan (translated into 7 languages)
Lang T (1986/7). 'The new food policies', *Critical Social Policy*, 18, Winter, 32-47
Wiggins Pat, Lang Tim, 'The Industrialisation of the U.K. Food System: from Production to Consumption', in Healy, M., B Ilbery, eds., (1985). *Industrialisation of the Countryside*, Geo-Books, Norwich, 1985. 45-56
Lang T (1984). 'Food and Agriculture: the British context', in Turney, J., ed. (1984). *Science and Technology Report*, London: Pluto. 123-125
Clutterbuck Charlie, Lang Tim (1982). *More than we can chew*. London: Pluto.

Health Promotion and Public Health

Lang T, Robertson A, Nishida C, Caraher M, Clutterbuck C (2001). *Intersectoral food and nutrition policy development: A Manual for Decision-makers*. Report E73104. Copenhagen: World Health Organisation.
Lang T, Caraher M (2001). 'International Public Health' in Pencheon D, Melzer D, eds. *Oxford Textbook of Public Health*. Oxford: Oxford University Press, 168-176
Caraher M and Allen D (2000). District nurses and the New Public Health: An opportunity for development. Part 2. *Primary Nursing Care Magazine*, 18-21
Caraher M (2000) Food policy and public health: a role for community nursing?, *Community Practitioner*, 73, 1, 429-431

Caraher M, T Lang (1999). 'Can't cook, won't cook: A review of cooking skills and their relevance to health promotion', *International Journal of Health Promotion & Education*, 37, 3, 89-100

Caraher M (1999). Concepts of a new public management for public health services at the community level in the UK. *Internet Journal of Public Health Education* at <http://www.ensp.fr/aspher/i-jph>

Caraher M and Allen D (1999). District nurses and the new public health agenda. *Primary Nursing Care Magazine*. November, 18-20

Caraher M, Philips U and McGough H (1998). *A Map of health promotion on radio and television: part of the broadcasting health project. Report to DGV/F/3 European Union, Luxembourg*

Caraher M (1998). A single voice for public health: One for all and all for one. *Public Health Forum*, vol 2, no 3. P7

Caraher M and Baker, H (1998). Research report to inform the development of the Information and Communication CLG's end product. DPI Home Office, London

K Hartz, P Crouch, Caraher M and Maggie McNab, eds., (1998). Coronary Heart Health Conference and evidence based health care. West London Health Promotion Agency. 30th Sept 1997

Caraher M (1998). Patient education and health promotion: clinical health promotion the conceptual link. *Patient Education and Counselling*. Vol 33, no 1, pp 49-58

Caraher M (1998). Rejoinder to van Eijk *Patient Education and Counselling*. Vol 33, no 1, pp 63-65

Caraher M (1998). *Health 2000*. An Open Learning Study Guide for BSc Health Promotion. TVU London

Caraher M, Maggie McNab (1997). Using lessons from health visiting's past to inform the public health role. *Health Visitor*, vol 70, no 10, pp 380-383

Caraher M (1997). *Lifespan Development*. Churchill Livingstone, Edinburgh

Caraher M (1997). *Promoting Health Unit Study Guide*. Southbank University, Distance Learning Centre

Caraher M, McNab M (1997). *Public Health Nursing: An alternative viewpoint*. *Health Visitor*, vol 70, no 3, pp 105-106

Caraher M, Marks-Maran D (1997). *Psychological Aspects of Caring in A Mixed Economy of Care*. Churchill Livingstone, Edinburgh

Caraher M (1997). *The Primary Care Education Centre: The Views of Users*. Commissioned Report for the Primary Care Education Centre in West London. Ealing Hammersmith and Hounslow Health Authority

Caraher M (1996). The Public Health Nursing Role: an overview of future trends. *Nursing Standard*, vol 11, no 51, pp 44- 48

Baker H, Caraher M (1995). *A Guide to Media Production*. Home Office, Drug Prevention Initiative

Caraher M (1995) Assembly line health promotion an analysis of change occurring in the delivery of health promotion services in England. *The Journal of Contemporary Health*. Vol 1, no 2, pp 53-58

Caraher M (1995). How to be a winner not a loser -a critique of health education and its contribution to the creation of victim blaming. *British Journal of Nursing*. Vol 4 no 20, pp 1190-1213

Caraher M (1994). A sociological approach to health promotion for nurses in an institutional setting. *Journal of Advanced Nursing*, Vol 20, pp 544-551

Caraher M (1994). Nursing and health promotion practice, the creation of victims and winners in a political context. *Journal of Advanced Nursing*, Vol 19, no 3, pp 465-468

Inequalities

Lang T (2002). 'Can the challenges of poverty, sustainable consumption and good health governance be addressed in an era of globalization?' in Benjamin Cabellero and Barry Popkin, eds (2002). *The Nutrition Transition*. New York: Elsevier, 51-70

Lang T, Caraher M (1998). Food poverty and shopping deserts: What are the implications for health promotion policy and practice. *Health Education Journal*, 58, 3

Caraher M Dixon, P, Lang T and Carr-Hill R (1998). Barriers to accessing healthy foods: differentials by gender, social class, income and mode of transport. *Health Education Journal*, 57, 3, pp 191-201.

Caraher M, Tim Lang and Paul Dixon (1997). Buying Eating and cooking food: A review of a national data set on food attitudes, skills and behavioural change. *A report to the Health Education Authority on Variations in Health: Implications for Health Promotion Policy*

Harrison Michelle, Lang Tim (1997). 'Running on empty'. *Demos Collection*. 12, 25-7

Lang T (1997). 'Dividing up the cake: food as social exclusion' in Alan Walker, Carole Walker, eds. *Britain Divided: the growth of social exclusion in the 1980s and 1990s*. London: Child Poverty Action Group. 213-228

Lang Tim, Hines Colin (1995). 'GATT and food security', *Ceres: The FAO Review*, 151, 27, 1, January-February, 19-23.

Lang Tim (1995). 'Food and Poverty: beyond blaming the poor', *Primary Health Care*, 5, 8, September, 10-16

Beaumont J, Leather S, Lang T, Mucklow C (1995). *Report on policy to Low Income Project Team, Nutrition Taskforce*. Radlett: Institute of Grocery Distribution. May
Lang T (1985). 'Occupationless Health', *British Medical Journal*, 14 Dec., 291 (6510), 1719.
Lang T (1985). 'Let them eat cake: food, needs and recession', *Critical Social Policy*, 13, summer, 118-123.
Lang T (1985). 'Of Cods and Cod's Head Soup', *Poverty*, Spring, 60, 27-30.
Lang T (1983). 'The School Meals Business', *Critical Social Policy*, 8, Autumn.

1. A [paper on 'greening' the health debate](#). This is on the interaction of Nature and Health. It is an attempt to look at the connections between health and nature, and how nature can improve health. You will all know the first part (up to page 16) as this summarises the public health situation. It is part 2, pages 16-25 which I think might interest you. This summarises evidence about the value that nature can have for improving or protecting public health. I found this very interesting. I hope you do, too.

2. A paper on the environmental costs of the food supply of one rich country, the UK. This is a paper mainly on the ['Food Miles' effect](#), the environmental aspects of the complexities of modern systems. We attempt to cost the externalized damage of UK food. I am sending you the pdf which has not got the final reference. It was just published in March in the journal: *Food Policy*, vol 30, 1, 1-20.

3. A paper by [Pretty and Hine](#) summarizing the lessons and evidence about sustainable farming and food systems and how/why they can contribute both to environmental challenge and to addressing policy. The document I am sending you gives the weblink to this full report, which is long and detailed. It addresses the issue Colin Tudge raised about the possibility of good ecologically-based farming being able to feed people, the issue Mark Wahlqvist supported. I think this Pretty and Hine summary is really important. Pretty summarized it also in his lovely little book:
Jules Pretty (2002). *Agri-Culture: Reconnecting People, Land and Nature* 280pp £14.95 ISBN 1-85383-9256

4. The one page sheet from the London Metropolitan university team (Michael Crawford's team) is a summary on the changing composition of poultry meat. It starts with the UK evidence-based policy recommendation to eat more poultry meat back in the 1970s, and shows how changes in the composition of poultry (and other meat) undermines that advice.

Best wishes

tim

Professor of Food Policy
City University, London
tel +44-(0)20 7040 8798
email: t.lang@city.ac.uk

Pretty J N, Ball A S, Lang T, Morison J I L, (2005), 'Farm Costs and Food Miles: An Assessment of the Full Cost of the UK Weekly Food Basket', *Food Policy*, 30, 1, 1-20

[Reducing Food Poverty with Sustainable Agriculture: A Summary of New Evidence](#)

Jules Pretty and Rachel Hine (full report, 136 pages)

February 2001

Website link:

<http://www2.essex.ac.uk/ces/ResearchProgrammes/CESOccasionalPapers/SAFErepSUBHEADS.htm>

Contents

[Acknowledgement, Acromyms, Executive Summary \(65kb\)](#)

[Chapter 1: What is Sustainable Agriculture? \(45kb\)](#)

[Chapter 2: The World Food Context \(31kb\)](#)

[Chapter 3: Methodology for the Study \(18kb\)](#)

[Chapter 4: Empirical Findings of SAFE-World Project \(44kb\)](#)

[Figures 4, 5, 6 \(11kb\)](#)

[Figure 7 \(9kb\)](#)

[Figure 8 \(6kb\)](#)

[Figures 9a, 9b \(12kb\)](#)

[Figures 10a, 10b, 10c \(9kb\)](#)

[Figure 11 \(5kb\)](#)

[Tables 6, 7 \(12kb\)](#)

[Table 8 \(8kb\)](#)

[Table 9 \(8kb\)](#)

[Chapter 5: Further Empirical Findings and Emergent Issues \(45kb\)](#)

[Chapter 6: Policies for a More Sustainable Agriculture \(29kb\)](#)

[Chapter 7: Concluding Comments \(9kb\)](#)

[References \(37kb\)](#)

[Annex A: Multiple Entry Points for Sustainable Agriculture Transformations \(14kb\)](#)

[Annex B: Some Thoughts on GMOs and Organic Agriculture \(16kb\)](#)

[Annex C: Details of Sustainable Agriculture Improvement in Thirteen Agroecosystems \(36kb\)](#)

[Annex D: Selection of Portraits of 46 Sustainable Projects and Initiatives in Latin America, Africa and Asia \(79kb\)](#)

[Annex E: Copy of Questionnaire Instrument \(18kb\)](#)

Food Control or Food Democracy?: re-engaging nutrition to civil society, the state and the food supply chain

Paper for 'The Future of Nutrition Science', Special issue / supplement, *Public Health Nutrition*, September 2005

Tim Lang

Introduction

An understanding of the future of nutrition requires some clarity about the terrain, players, purpose and options for which nutritional strategy and policy are to be formulated. This paper explores three misconceptions and associated arguments about nutrition, the clarification of which might help clear the ground for a better and more realistic discussion about what nutrition might or might not do in coming years. It concludes with some recommendations.

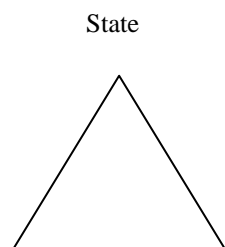
The first misconception is that nutrition is homogeneous, when it is in fact split into two broad but divergent directions. One is biologically reductionist, the other sees nutrition as located in social processes. As a result, nutrition means different things to different people. There is no such body of knowledge as Nutrition; there are Nutritions.

The second misconception is that nutrition's contribution to humanity is best delivered by providing ever more accurate evidence to inform policy. This scientific approach to nutrition has placed unnecessary strain on the social role of nutritionists. It begs evidence that policy does not work in quite that supposedly rationalist manner. Great advances in public health are sometimes made despite evidence rather than because of it. Today, nutritional advance probably requires improvements at a societal and political level not better nutritional evidence alone. Nutrition can participate in this, and help elucidate change options, but cannot deliver them. If nutritional scientists think they can achieve policy influence by piling on the evidence, they are mistaken. They have to choose between Food Control or Food Democracy. In the former, food is viewed as something to be controlled and with which to exert control over people and nature. In the latter, food is viewed as a tool for emancipation, something with which to enhance quality of living. Nutrition and nutritionists have to be clear and more open and discriminating about whom they work and help inform.

The third misconception is that choice has brought improvement and is an unalloyed advance. In fact, there is a plethora of choice and information overload, as powerful forces vie for consumer attention. Consumerism is now part of the problem not part of the solution. The 20th century food revolution has altered the terrain on which nutritional battles are fought. In the old policy régime, patrician 'top-down' information – from either nutritional tradition - could deliver change, if presented at the opportune moment (such as wars, or other emergencies when politicians are looking for solutions). In today's complex world, where once more nutrition is a 'hot' subject and where over-consumption and under-consumption co-exist, nutrition now has to compete in a different policy régime. The current policy régime is less expert-led and more consumer-oriented. This new consumerist policy régime sounds democratic but is in fact being framed by supply chain forces which are more powerful than either the state can tackle at the national level or consumers can tackle at the individual level. The consumerist policy régime cannot cope with problems such as obesity. It assumes that voluntarism and individual choice can triumph over degenerative disease, or that technical fixes can be offered in some notional marketplace. That route consigns nutritional science towards the pharmacy or bariatric medicine.

The core argument of this paper is thus that nutrition and nutritionists must choose with which domain their loyalties lie. Nutritional science, no more than any science, does not live in a vacuum, but is framed by its context. It sits in the holy triangle of food policy, fought over by competing forces: the State, Supply Chain and Civil Society (see Figure 1). Forces within each corner of this triangle compete for primacy. Currently, to take the supply chain, retailers hold power. At the State level, there is confusion between the levels of modern multilevel governance: local, national, regional or international. Within civil society, there is similarly some confusion over who speaks for civil society: is it 'ordinary' consumers through polls (but who asks the questions?) or the weekly shopping purchase (the 'consumer votes' theory (Dickinson and Hollander, 1991)) or activists such as NGOs?

Fig 1. Nutrition as contested space between State, Food Supply Chain and Civil Society



Into this complex policy terrain, nutrition has many possible routes of engagement; the question is with whom and for what? The paper proposes that, to be meaningful, 21st century nutrition will have to help formulate new rules or guidelines for eating, linking nutrition to other consumer demands for information, besides price, to help them choose in relation to other criteria such as process (how has the food been grown, made etc.), environment, social justice, ethics, animal welfare and more. Nutritional information is currently given to consumers either at point of sale, through labeling, or through general dietary advice such as State-approved guidelines. These are too general, and they differ; within Europe, for instance:

- the UK's Food Standards Agency recommends '5-a-day', "Eat a wide variety of fruit and vegetables and aim for at least five portions a day" (Food Standards Agency, 2005)
- The USA says it should be '7 a day' for most adults: four 'servings' of vegetables + three of fruit; (US Department of Agriculture, 2000)
- the Danish Veterinary and Food Administration and 8 other bodies including the Danish Cancer Society recommend '6 a-day': three fruit plus three vegetables, totaling over 600g per day, (Ministry of Family and Consumer Affairs' Veterinary and Food Administration, 2005)
- the Greek Ministry of Health recommends '9-a-day' (three fruit and six vegetables, "including wild greens," a rich source of antioxidants). (Ministry of Health and Welfare Supreme Scientific Health Council, 2002)

Besides the difficulty for consumers of interpreting such guidelines and their use of vague notions such as 'servings', more importantly for policy they fail to join up with other discourses. By focusing narrowly but understandably on nutrition, such guidelines create unnecessary contradictions. How for example can consumers follow common advice to eat fish when the stocks are in serious decline and when even fish-farming is environmentally hazardous? Yet there is almost as much unanimity as to the crisis of over-fishing, (Royal Commission on Environmental Pollution, 2004, Pew Oceans Commission, 2003) or at best the need only to consume certain more plentiful species. The nutrition literature is near unanimous as to fish's benefits, although there are some legitimate concerns about contaminants. (Hites et al., 2004, Jacobs et al., 2004) These are generally ignored by official nutrition bodies or pushed to one side as a relatively lower risk than not consuming the beneficial *n-3* fatty acids. The UK's Food Standards Agency stated: "[a]ll foods can carry some risks. It is a question of balancing benefits and risks. The known benefits of eating oily fish outweigh any possible risks." (Food Standards Agency, 2004) Do not consumers expect both good oily fish *and* pollutant-free fish?

Another example is the recommendation to eat ample fruit and vegetables, without considering how these are grown or whence they arrive in the consumer's mouth. The burden of growing food transportation is now considerable. Rich countries can afford to stop farming, despite having good land and climate, and import more. Also so-called efficiencies of supply chain management mean a remarkable growth in 'food miles', the distance food travels down the supply chain. (Jones, 2002, Paxton, 1994). Food in Britain today travels 65 per cent further by road than it did two decades ago due to centralised storage; a quarter of all lorry traffic is for food. The distance food travels within the food system before it is consumed illustrates the economic problem of externalities. The price consumers pay – the biggest factor in food choice, not nutrition – does not reflect the true price of production. One study has now calculated the financial burden for the UK of such externalized costs. (Pretty et al., 2005) The implications are that it is better to eat produce grown as near to the point of consumption as possible. If there is a choice between eating an organically produced food which has traveled many food miles and an intensively grown but more local one, it is best to choose the latter; the idea, in this two option scenario is to have a product which meets both considerations. Another study, looking at CO₂ emissions (but not costing them), found a more complex story in that localisation is not necessarily the optimum strategy for reducing CO₂ emissions, although distance is a clear factor. (Garnett, 2003) National policy is silent as to how such environmental or cultural considerations are to be linked to nutrition or translated into practice.

Argument 1: which nutrition?

In recent years, nutritional science has gradually, but not necessarily irrevocably, split. As a result, nutrition means different things to different people and it might be counter-productive to try to corral all nutrition into one perspective. There is no 'real' or one nutritional canon; there are nutritions. Nutritional science from its earliest formulation has pictured itself as a progressive force, a tool for improvement and social good. Over the last two centuries, nutrition researchers have attempted to systematize knowledge which previously was cultural, i.e. relativist and lacking universality; it moved from 'folk' knowledge to 'science'. Today nutrition is highly

fragmented intellectually. It ranges across social nutrition (studying the interface of nutrition and society, for instance, differences between social groups), nutritional epidemiology (plotting the contribution of diet to diseases), biochemistry (exploring the biochemical interaction of nutrients and physiology), sports nutrition (optimising performance), animal nutrition (ditto) and psychophysiology (including the study of attitudes and food choice), and more. Nutrition, like other sciences, pulls apart at the margins. So can we speak meaningfully of nutrition?

Two broad directions or paradigms for nutrition are discernible today. One is biologically reductionist and with an interest in nutrients as key factors in individually determined health, the better understanding of which will enable diet to be tailored according to individual needs. The other is rooted in social reform and a more classical conception of public health, in which amelioration of diet, (ill)health and supply chains have to be introduced on a population-wide rather than individualized basis.(Porter, 1998, Rimlinger, 1971) This public health or social nutrition approach is now rightly being deepened by modern understanding of the environmental infrastructure for health,(McMichael, 2001) generating a new ecological conception of public health in place of ‘classical’ sanitarianism or social engineering as public health.(Lang et al., 2001)

The first direction, which Michael Heasman and I have termed the Life Sciences Integrated paradigm, is currently dominant and more generously funded. This takes nutrition down the ontological mineshaft, beyond biochemistry and into nutrigenomics.(Chadwick, 2004) This is the search for nutrient triggers of genetic pre-potential, placing nutrition as the search for ever more microscopic and refined processes. In the words of two proponents, “dietary intervention based on knowledge of nutritional requirement, nutritional status, and genotype (i.e., “individualized nutrition”) can be used to prevent, mitigate, or cure chronic disease.” (Kaput and Rodriguez, 2004) The goal of nutrition, within this paradigm, is to unlock the pathways by which diet delivers (or fails to deliver) nutrients affecting metabolism and signal transduction, and thence gene expression and either normal or abnormal cell growth; the key insight is that common dietary chemicals can affect gene structure. Unlocking genetic pre-potential will enable tailored dietary advice or nutritional cocktails to be engineered to avoid chronic diseases.

Aiming to discover more sophisticated and ‘fundamental’ building blocks or pathways, this direction in nutrition tries to unravel the complexities by which food helps or hinders physiological (re)action. Sir Frederick Gowland Hopkins’ discovery of vitamins, following his discovery in 1901 that the human body cannot create *tryptophan*, epitomizes the forensic dissection of such mechanisms governing the interaction of food, physiology and biochemistry. The restrained excitement that this engendered is captured by this quotation from Wood and Gowland Hopkins in 1915:

“The human body, though doubtless in many of its aspects something more than a mere machine, resembles the steam-engine in two respects. It calls for a constant supply of fuel, and as a result of doing work, it suffers wear and tear. The body must burn fuel in order that the heat it is always giving off may be continuously replaced; and it must burn still more fuel whenever it does work. From this necessity there is no escape. [...] It is, of course, the food eaten which provides these fundamental needs of the body; and if we are to understand properly the nutrition of mankind, we must bear in mind the two distinct functions of food – its function as fuel and its function as repair material.”(Wood and Gowland Hopkins, 1915)

The ambiguity of the last sentence is important; much hangs on by whom and how this ‘repair’ is to be delivered and defined. Although today conceiving of the body as infinitely more complex than a mere input-output machine, that core mechanical view remains and has been enormously influential; it helped enshrine a view that nutritional science can and should contribute to conceiving food as something to be controlled. This legitimises current investment such as probiotics and functional foods.(Heasman and Mellentin, 2001) These are technical fixes for disease, requiring expert-led knowledge and turning food into personalised medicine. Food production, according to this view, elides into pharmaceuticals.

The other direction for nutrition is currently more marginal, although it too has a distinguished intellectual pedigree. This direction is more concerned with the social aspects of nutrition: who eats, what, when and how, and with what effects. Social Nutrition proposes that nutritional science is rooted in social policy. Nutrition’s insights need to be harnessed to ameliorate the societal determinants of diet-related (ill)health. The solutions for nutrition problems lie less in unlocking biological pathways than in creating social environments which can deliver ‘correct’ balances. Nutritional science can and should contribute to social rather than individualized interventions. Change society, and nutrition will follow.

The clash between these perspectives - personalised versus societal change - was part of the reason for the tension over the 2004 WHO Global Strategy on diet, physical activity and disease.(WHO, 2004) The roots of both approaches are deep. James Lind’s ‘cure’ of scurvy for the British navy by adding citrus fruit to the diet was

not just philanthropic;(Drummond and Wilbraham, 1958) it was driven by the urgent need to improve navy efficiency and to protect colonial expansion and trade routes. Equally, early 20th century social reformers such as Seebohm Rowntree researched and argued the case for better food for the working classes who worked in his factories partly on efficiency grounds; having good food in workplace canteens reduced incentives not to return to work after lunchbreaks.(Rowntree, 1921) Throughout Europe in the early 1900s, interest in diet and health partly stemmed from eugenicism, a fear of what might happen if national breeding stocks deteriorated. Diet and social Darwinism have historically been close.

Nutrition is, and often has been, a battleground with some forces seeing and using nutrition as an opportunity for social control and others arguing that it could either constrain or liberate human potential. This tension between social control and democracy – ‘top down’ science versus people-oriented science –still characterises the world of nutrition. W. O. Atwater, the influential US nutritionist whose late 19th century thinking framed much early 20th century US, and indirectly, European conceptions of the nutrition challenge, was an early critic of the American diet, but he also pursued a mechanistic approach to understanding food as fuel in physical labour. He calculated how much or little nutrient intake was required by different grades of manual workers, according to whether they were engaged in moderate or heavy work.(Atwater, n.d.) He and other researchers produced estimates of the protein, fat and carbohydrate required of workers with light, heavy and moderate work.

Atwater’s work was taken up east of the Atlantic by B Seebohm Rowntree, scion of a giant UK chocolate dynasty (a firm now owned by the world’s largest food company, Swiss-based Nestlé). Rowntree conducted both domestic and industrial surveys in his home town of York based on Atwater’s and similar nutritional calculations of need, throughout the first half of the 20th century.(Rowntree, 1902, Rowntree, 1921, Rowntree, 1941, Rowntree, 1913) Rowntree used Atwater’s minimalist approach to nutrition to ensure that in the UK’s stringent social times, no-one could accuse him of over-estimating or over-indulging the needs of the poor. By taking low standards, he argued, the finding that so many in the UK experienced real food poverty, made his findings all the more shocking. Although a liberal philanthropist, Rowntree’s use of nutrition was still that of the ‘top down’ planner.

A century on, the two nutitions – life sciences integrating nutrition and social nutrition – offer divergent recipes for the future. One pursues technical change to deliver private compensation for the world’s nutritional ills. The other argues that the world’s nutritional ills cannot be resolved unless societies themselves change. Environmental challenges are concentrating the minds of both.

Argument 2: the gap between evidence and policy

The second misconception is that nutrition’s contribution to humanity is best delivered by providing ever more accurate evidence to inform policy. This scientific approach to nutrition has placed unnecessary strain on the role of nutritionists. It begs evidence that policy does not work in quite that rationalist manner. The gap between evidence and policy cannot be resolved by piling on ever more evidence, but by being clearer about what the questions are to which society needs answers. This begs the question, of course, as to who and what defines ‘society’.

The theoretical ideal of the relationship between evidence and policy is what we might call a *mutually self-improving relationship*. In this there is a continuous virtuous circle in which: (1) evidence informs policy; (2) policy feeds the search for evidence; (3) there is mutual benefit from repeated feedback; (4) policy is based on best evidence; and (5) data synthesis is best conducted on a systematic basis. One plea for more evidence-based policy in nutrition has argued: “[e]vidence-based nutrition is the application of the best available systematically assembled evidence in setting nutrition policy and practice.”(Brunner et al., 2001)

The evidence-based approach to policy has huge professional appeal to those with scientific training or aspirations. One has argued: “[d]espite some groups using evidence based policy as a fig-leaf, it seems difficult to argue with the idea that scientific research should drive policy.”(Black, 2001) But the role this ascribes to the researcher is of seller awaiting a buyer, “a retail store in which researchers are busy filling shelves of a shop-front with a comprehensive set of all possible relevant studies that a decision-maker might some day drop by to purchase.”(Lomas, 2000) Is this pursuit of evidence-based policy therefore an admirable mirage, a rational appeal, influenced by medical debate, about the inappropriateness of following practices unless they are properly *based on science*, with the Cochrane Collaboration approach as the *gold standard* for evidence into practice? Systematic and rigorous reviews of healthcare interventions, based on peer-reviewed journals (shedding ‘grey’ literature) may be an ideal for surgery, but societies are not surgeries, except for dictators. Nor is the ideal cycle

of ever-improving relationship of research to policy what happens in the real world of nutrition policy. This is for a variety of reasons.

The first is politics; the Government of the day may oppose the evidence, as it does not fit ideology or other commitments. Most countries have such experience. In the UK, a well documented case was the burying of the Black Report on Inequalities in Health in 1980, requested by a previous 1974–79 Labour Government. Sir Douglas Black, a distinguished physician, and colleagues summarised the data on the impact of inequalities on public health and made proposals on how to tackle it, including strong recommendations on public food, such as school nutrition. The incoming Conservative Government, which received the report, did not like it, published only 500 restricted copies and refused to act on it. A scandal ensued, but policy remained opposed to the evidence. The dynamics were repeated with another report a few years later. (Townsend et al., 1990) Such politics have been documented for the USA. (Nestle, 2002)

The second factor can be lobbying, where an interest group works actively to stop the implications of evidence being turned into policy. This process may never be in public. In 2002-04, the sugar industry of the USA lobbied hard within the US Government to encourage the USA to weaken or slow the WHO's proposed Global Strategy on Diet, Physical Activity and Health, based on the joint WHO-FAO report 916. (Sugar Association (USA), 2003) In 1982-84, a not dissimilar attempt to deflect the implications of evidence for nutrition education was documented in the UK. A government-approved health education strategy working party was torn apart after it emerged that powerful elements of the processed food industry (sections selling processed, salty, fatty, sugary foods) tried to weaken the report and health education strategy being proposed. (Walker and Cannon, 1983) This lobby in fact back-fired and led to a sharp rise in public awareness, but no change in policy.

Should nutrition scientists therefore give up trying to make policy more evidence-based? No! But there has to be better expectation, as well as realisation of policy-making processes. A number of policy-evidence relationship can be identified:

- Policy in search of evidence.
- Policy without evidence.
- Policy with out-of-date evidence.
- Policy lagging behind evidence.
- Policy with partial evidence.
- Policy denying evidence.
- Evidence in search of a policy.
- Policies all with evidence which all conflict.

Building on this typology, we can propose three preliminary and broad categories of the policy-evidence relationship in food policy (see Tables 1, 2 and 3). These are focussed on the UK / Europe, for illustration.

Even if the rational-scientific ever-improving cycle of evidence and policy did dominate, limits are built in to the policy production cycle. Policy-makers have relatively short time horizons, often driven by electoral cycles. Researchers have longer time horizons, but they too are often dominated by demands for funds, high-status outputs, and the manufacture of reputations. Meanwhile, practitioners – whether parents feeding children, dietitians offering advice or farmers growing crops - are forced to deal with the immediate. In fact, only those with power, have the luxury of surveying all time zones. Today, there is little doubt that the power brokers are the retailers.

Although there are differences between levels of economic development, the global emergence of retail power is marked. (Reardon and Swinnen, 2004, Hu et al., 2004) They are the main (some argue almost sole) gate-keepers between supply and consumption. (Dobson et al., 2003, Dobson et al., 2001) The food sector is characterised by unprecedented concentration; ever fewer companies dominate dynamics. The process is advanced in Europe, but happening world-wide. (Heffernan et al., 1999) Prior to EU enlargement, one 2003 study showed how in the 15 member states, there were 3.2 million farmers feeding 250 million consumers, via 170,000 outlets, from 88,600 processors and manufacturers but this supply and demand was funnelled through only 600 supermarket chains with 110 key buying desks. (Grievink, 2003) This picture occurs in specific commodities too; three companies,

for instance, have over 50% of the Brazilian soya feed trade to Europe, too. (Vorley, 2004) Contracts and specifications are the control mechanism, not state regulations. In fact, a dual system of regulation and governance has emerged: the state's and corporations' sometimes in harmony, sometimes in tensions, sometimes merely operating in different spheres. (Marsden et al., 2000)

To summarise, in the real world of policy, the policy-evidence relationship can be complex and policy-making can be political (some would argue that this is inevitable). But it is possible to unravel both the experience and desirability of clearer relationships between evidence and policy. Nutritional science should be more discriminating, and as is argued below, get better lobbies, more focussed and better organised itself. Policy-making is always in transition. There is never a policy vacuum; the world cannot be frozen pending the discovery of evidence to inform it.

Argument 3: good nutrition can be delivered by consumer demand

The third misconception is over nutrition's relationship to consumerism. Since the early to mid 20th century, the period which enshrined the productionist paradigm – for which nutritional evidence was so formative (Boyd Orr, 1943, Smith, 1996) - the structure of the food economy at national and international level has become remarkably different. There have been changes from farm to plate in:

- how food is grown – for example, mass use of agrochemicals, hybrid plant breeding; (Goodman and Redclift, 1991)
- how animals are reared – for example, factory farms, intensive livestock rearing, prophylactic use of pharmaceuticals to increase weight gain; (Clunies-Ross and Hildyard, 1994)
- a shift in scientific focus from chemistry to biology – for example, the emergence of bio-technology as applied to plants, animals and processing; (Goodman et al., 1987, Fowler and Mooney, 1990)
- food sourcing – for example, a shift from local to regional and now global supply points, with a blurring of the notion of seasonality and a tendency to monoculture on the farm belying the biodiversity on the supermarket shelf; (Friedland et al., 1981, Barrett et al., 1999, Dolan and Humphrey, 2000)
- forms of processing – for example, use of extrusion technology, fermentation, wholesale use of cosmetic additives to disguise products and yield consistency; (Millstone, 1986)
- use of technology to shape quality – the goal of mass production to deliver consistency and regularity (uniformity) is now focused on the development of niche products with 'difference'; (Heasman and Mellentin, 2001)
- the workforce – what, where and how labour works; there has been a dramatic shedding of labour on developed world farms but a retention of pools of cheap labour (immigrants) to do the manual tasks such as grading and picking; there is also a strong push to 24-hour working; (Lawrence, 2004, Feder, 1977)
- marketing – for example, a new emphasis on product development, branding and selling; this has accompanied a dazzling display of apparent choice, with thousands of products vying for consumer attention; (Hawkes, 2004, Thrupp, 1995)
- retailers' role – they have emerged as the main gateways to consumers, using contracts and specifications to gate-keep between primary producers and consumers; retailers are the new food powers; (Raven and Lang, 1995)
- distribution logistics – for example, use of airfreight, regional distribution systems, 'trunker' (heavy lorry) networks, satellite tracking; (Hughes, 1994, Trienekens and Zuurbier, 1996)
- methods of supply chain management – for example, centralisation of ordering, application of computer technology, application of batch /niche production to mass lines ('flexible specialisation');
- moulding of consumer tastes and markets – for example, mass marketing of brands, the use of product placement methods, huge investments in advertising and marketing and the targeting of particular consumer types; (Ferguson, 1992)
- level of control over markets – for example, rapid regionalisation and moves towards globalisation, and the emergence of cross-border concentration. (Vorley, 2004)

The dynamics of this restructuring are highly significant for nutrition science because these are the drivers of what food is eaten, how much is paid, the range of nutrients taken, the cultural meaning of food, and the ecological impact of the mode of production, in short the entire shape of nutrition that nutritionist monitor. As a result, nutritionists are like epidemiologists counting the bodies as they fall off the cliff, studiously refraining from engaging with the forces that shepherd the process. Nutrition is consigned endlessly to monitor the implications of actions taken by others, with little regard or a partial regard to nutrition, cherry-picking rationalisation that suit commercial or 'market' realities. The extensive use of trans-fats in bakery products by

the processing industry is an example; nutritional evidence is now clear that what was good for shelf-life, cosmetic appearance, olfactory sensation (taste) and price can be undesirable for health.

The enormity of the 20th century transformation of nutrition's terrain by the adoption of the productionist paradigm, ironically in part due to nutritional evidence calling for policy change, has created a new policy challenge. The old mantras were 'raise output', 'go for quantity', 'lower price', forming productionism's policy 'equation' as follows:

Science + Capital + State Support (finance + policy) → increases production, which if distributed appropriately → health + well-being

Efficiency, managerial control, new technologies and processes, replacement of labour by machinery, and more, had all increased outputs in line with what nutrition had suggested. The result is a more complex, messier world, with contrary trends within the food system: global versus local; hi-tech versus low-tech; simple versus complex diets; ready-made versus 'fresh' foods; individualised versus population approaches to health; and so on. These divergent trends are summarized in Table 4. There is a tendency for the food supply chain to move to the left hand column rather than the right hand one. What might replace the old productionist policy régime is explored elsewhere, with various arguments being proposed. (Tudge, 2004, Lang and Heasman, 2004, Coleman et al., 2004)

A number of features of early to mid 21st century are likely to be significant; these certainly include:

- Oil, on which the efficiencies of productionism depend. (International Energy Agency, 2003)
- Water, availability of which is already poor and likely to get patchier. (Clarke and King, 2004)
- Climate change, which is likely to reshape what is grown, where. (Intergovernmental Panel on Climate Change, 2001)

Another issue is rural labour. Who is to grow the food of the future? Over past 50 years the number of actual farmers has declined by 86% in Germany, 85% in France, 85% in Japan, 64% in the USA, 59% in Korea and 59% in the UK. In the USA there were close to seven million farms in the 1930s, but less than 1.8 by the mid-1990s. Today in the USA there are more full-time prisoners locked up in gaol than full-time farmers, less than 1% of the population. (Halweil, 2000) In what will be the greatest movement of people in history, the Chinese government intends to move an estimated 530 million people from country to town in coming decades. Remaining rural labour might become more conventionally efficient, but what about the social dislocation or the environmental impact? (Gulhane, 2004) This urban population increased from 72 million in 1952 to 370 million in 1997, but the plans for 2020 will take that urbanised population to 60%. (Dickie and Kynge, 2003)

Conclusion

It is a myth that nutrition was ever neutral; on the contrary, this paper argues, nutrition has only made advances when engaged with society. Policy-makers have been weak in responding to evidence from nutrition, but in part this failure has been due to nutrition lacking good champions, coherent organization, political will to lobby alongside and against powerful forces, as appropriate. There have been long-overdue but welcome stirrings around the WHO/FAO Technical Report 916, and the accompanying Global Strategy on Diet, Physical Activity and Health. Rising awareness of the global obesity epidemic has helped 'shock' nutritional scientists into coming out of 'neutrality'. Divergent solutions – drugs, diets, bariatric medicine, better lifestyles – cannot mask the problem, nor the structural contribution made by the food supply chain. The emergence of supermarkets, accessible only by motorized transport actively shapes people's capacity to build exercise into daily life. Obesity, too, has provided evidence of institutional failure, the complexity of multi-level government - local, sub-national, national, regional and global...all at the same time seemingly aiding the inability of nutrition progressives to tackle commercial domination of food culture through advertising. The two leading commercial ad-spend budgets of the world each spend \$1.7 billion a year, vastly more than the entire health education budgets of governments.

Faced with this reality, what can nutrition scientists do? They must get tougher and more active. They need to be better organized. They need to stop being so locked into 'science' and 'evidence' mode. They need to argue for more regulation. They need to learn from the best NGOs and, for all its differences, learn from the experience of tobacco. The evidence piled up for half a century, but it took campaigns to win policy chain. Where is the nutrition 'greenpeace', prepared to go out on a limb, arguing the unpopular case for protecting the seas? When is nutrition going to create a 'Nut-peace'? Or the consensus documents, with lobby to boot, parallel to the policy work of the International Panel on Climate Change?

There is a strong case to be made for nutrition science becoming more open and more partisan, and for being more discriminating about whom it might work and help inform. Nutritionists can choose between Food Control, in Sir William Beveridge's resonant phrase, (Beveridge, 1928) or Food Democracy. (Lang, 1998) Rather than seeing outside demands as 'polluting' pure nutritional science, it might be more appropriate to conceive them as an opportunity to rebuild diversity within and about nutritional research and thinking.

Table 1. Examples of where evidence leads to policy response

Type of <i>policy-evidence</i> relationship	Example
Policy with evidence	Loss of European public's trust in the European Commission led to creation of European Food Safety Authority; similar processes in other EU Member States.
Policy without evidence	Welfare benefits are assumed to cover real food costs.
(Weak) policy despite evidence	Alcohol reduction can be met by health education.
A policy with patchy or partial evidence	Fluoridisation.
Policy with out-of-date evidence	The Common Agricultural Policy which assumed (understandably in the 1950s, fresh from World War II and ravages in European farming) that the problem for policy to address was deficiency/under-production. Another example is UK management of shellfish, in contrast to France's régime.
Policy claiming evidence	Health education's belief that it will improve food habits in the face of mass food industry marketing and advertising.

Table 2 Examples of policy appearing not to be in response to evidence

Type of <i>non-policy-evidence</i> relationship	Example
Evidence in need of policy	Obesity on which, despite masses of evidence, there has been little policy.
Rhetorical policy despite strong evidence for active policy	Inequalities of income have proven impact on health. Dietary guidelines.
Evidence with little policy (i.e. where there is silence despite evidence)	Salt.
Evidence leading to partial policy	Alcohol policy 'Consume wisely'.
Supposedly strong evidence with pragmatic but low policy response	Fruit and vegetable intake 5-a-day campaign. Should this be far more: 6 or 9-a-day?

Table 1.3 Evidence in line with policy

Type of <i>up-to-date</i> policy-evidence relationship	Example
Practice informed by evidence	Diabetes – diet modification.
“ ”	Hazards Analysis Critical Control Point (HACCP) applied in the food supply chain to tackle food safety, leading to reduction of key foodborne pathogens
“ ”	Nutrition labelling can be used effectively to alter behaviour (but on its own, it cannot transform national diets).

Table 4 Dimensions of the modern food system

<i>Sector</i>	<i>On the one hand....</i>	<i>On the other hand...</i>
Policy goals	Intensification	Extensification
	Quantity	Quality
	Food control	Food democracy
Farm	Animal-focussed	Plant-focussed
	Large farms	Small farms
	Labour replacement	Labour retention
	Monoculture	biodiversity
	Long-distance food	Local food
Processing	Assembly	cooking
	Factory cooking	Home cooking
	De-skilled / machine-minder	Skilled / artisanal
Culture	Hypermarket	Street market
	Global food	Regional food
	Fast food	Slow food
	Consumerist	Citizen
	Advertising / marketing	Education
Nutrition	Nutrient-lite	Nutrient-rich
	Domination by cheap commodities such as sugar and fat	Nutrient diverse
	Individualized approach to health	Population approach to health
	Nutri-genomics	Social nutrition
Economy	Food prices do not include externalized costs (e.g. health, environment)	Full-cost accounting
	Cheap / low prices	Expensive/high prices
	Industrial / post-industrial	Craft / industrial

Table 5. Different approaches to food and health policy, by paradigm

<i>Policy focus</i>	<i>Productionist Paradigm</i>	<i>Life Sciences Integration Paradigm</i>	<i>Ecologically Integrated Paradigm</i>
Relationship to general economy	Trickle down theory; primacy of market solutions; inequality is inevitable	Corporation-led due to need for large private sector science budgets	Population approach via real stakeholder consultation; health as economic determinant; inequalities require societal action
Direction for health policy	Individual risk; reliance on charity; safety is prime concern	Public-private partnerships; personal insurance; safety and nutrition some concern but approached by risk management and hazards control	Social insurance including primary care, welfare and public health services;
Approach to diet, disease and health	Implicit acceptance of societal burden of disease; inability to act on problems of over- and under-nutrition	The right to be unhealthy; a medical problem; individual choice is key driver; demand will affect supply; niche markets	The right to be well; entire food supply geared to deliver health
Food Business	Commodity focus; industrial scale ingredients and processing; costs of ill-health not included in price of goods;	Commodity focus with niches; underpinned by public costs but subject to pressure to shift costs from public to private;	Costs internalised where possible; needs to develop more robust mass production controls; emphasis on 'natural' products and processing;
Environment	Tendency towards monoculture; limited consideration of costs; pressure on resources to produce food; <i>ad hoc</i> adjustment; industrial chemical dependency	Reinforces monocultural tendencies but some rhetorical concern about diversity; gradualist; acceptance of importance; hi-tech industrial approach to problems; tries to reduce industrial chemical dependency	Biodiversity at heart of thinking; works with ecological assumptions; development of robust ecological systems; minimised industrial chemical use
Consumer culture	Individual responsibility; self-protection; consumerism dependent on willingness to pay as consumer;	Access and benefits according to capacity to pay;	Societal responsibility based on a citizenship model; defined rights as citizenship; authentic stakeholder involvement
Role of the State	Minimal involvement; avoid 'nanny state' action; resources are best left to market forces	Balance of public and private sector; rhetoric of minimal state accompanied by strong state action in some sectors; enabling regulation	Sets common framework; provider of resources; corrective lever on the imbalance between individual and social forces

REFERENCES

- Atwater, W. O. (n.d.) *Foods, Nutritive Value and Cost*. Washington DC: US Department of Agriculture.
- Barrett, H., Illbery, B., Browne, A. and Binns, T. (1999) 'Globalization and the changing networks of food supply: the importation of fresh horticultural produce from Kenya into the UK', *Transactions of the Institute of British Geographers*, 24, 159-174.
- Beveridge, S. W. (1928) *Food Control*, Oxford: Oxford University Press.
- Black, N. (2001) 'Evidence based policy: proceed with care', *British Medical Journal*, 323, 275-279.
- Boyd Orr, S. J. (1943) *Food and the People*, London: Pilot Press.
- Brunner, E., Rayner, M., Thorogood, M., Margetts, B., Hooper, L., Somerbell, C., Dowler, E., Hewitt, G., Robertson, A. and Wiseman, M. (2001) 'Making public health nutrition relevant to evidence-based action', *Public Health Nutrition*, 4, 1297-1299.
- Chadwick, R. (2004) 'Nutrigenomics, individualism and public health', *Proceedings of the Nutrition Society*, 63, 161-6.
- Clarke, R. and King, J. (2004) *The Atlas of Water: mapping the world's most critical resource*, London: Earthscan.
- Clunies-Ross, T. and Hildyard, N. (1994) *The Politics of Industrial Agriculture*, London: Earthscan.
- Coleman, W. D., Grant, W. and Josling, T. (2004) *Agriculture in the New Global Economy*, Cheltenham: Edward Elgar.
- Dickie, M. and Kynge, J. (2003) 'China May Shift 500m People in Growth Drive', *Financial Times*, November 11 p
- Dickinson, R. and Hollander, S. C. (1991) 'Consumer votes', *Journal of Business Research*, 22, 335-342.
- Dobson, P., Clarke, R., Davies, S. and Waterson, M. (2001) 'Buyer Power and its impact on competition in the food retail distribution sector of the EU', *Journal of Industry, Competition and Trade*, 1, 247-281.
- Dobson, P. W., Waterson, M. and Davies, S. W. (2003) 'The Patterns and Implications of Increasing Concentration in European Food Retailing', *Journal of Agricultural Economics*, 54, 111-126.
- Dolan, C. and Humphrey, J. (2000) 'Governance and trade in fresh vegetables: The impact of UK supermarkets on the African horticulture market', *The Journal of Development Studies*, 37, 145-176.
- Drummond, J. C. and Wilbraham, A. (1958) *The Englishman's Food*, London: Jonathan Cape.
- Feder, E. (1977) *Strawberry Imperialism*, Den Haag / The Hague: Institute of Social Studies.
- Ferguson, H. (1992) Watching the world go round: Atrium shopping and the psychology of shopping, In (Ed, Shields, R.) *Lifestyle Shopping: The Subject of Consumption* London: Routledge.
- Food Standards Agency (2004) *Salmon study in Science magazine: statement on dioxins in salmon*. London: Food Standards Agency.
- Food Standards Agency (2005) *How much fruit and veg should I be eating?* London: Food Standards Agency.
- Fowler, C. and Mooney, C. (1990) *Shattering: food, politics, and the loss of genetic diversity*, Tucson: University of Arizona Press.
- Friedland, W. H., Barton, A. E. and Thomas, R. J. (1981) *Manufacturing Green Gold: Capital, Labour and Technology in the Lettuce Industry*, Cambridge: Cambridge University Press.
- Garnett, T. (2003) *Wise Moves*. London: Transport 2000 for the Department of Transport.
- Goodman, D. and Redclift, M. (1991) *Refashioning Nature: Food, Ecology and Culture*, London: Routledge.
- Goodman, D., Sorj, B. and Wilkinson, J. (1987) *From Farming to Biotechnology*. Oxford: Blackwell, Oxford: Blackwell.
- Grievink, J.-W. (2003) The Changing Face of the Global Food Supply Chain In *Changing Dimensions of the Food Economy* OECD, The Hague.
- Gulhane, N. (2004) Chicken Feet and Communism: Will large-scale urbanisation in China undermine its own food security? MSc Thesis, *Department of Health Management & Food Policy* City University, London.
- Halweil, B. (2000) 'Where have all the farmers gone?' *World-Watch*, 13, 12-28.
- Hawkes, C. (2004) *Marketing Food to Children: the Global Regulatory Environment*. Geneva: World Health Organisation.
- Heasman, M. and Mellentin, J. (2001) *The Functional Foods Revolution: Healthy People, Healthy Profits?*, London: Earthscan.
- Heffernan, W., Hendrickson, M. and Gronski, R. (1999) *Consolidation in the Food and Agriculture System. Report to the National Farmers Union*. Columbia, Missouri: University of Missouri: Department of Rural Sociology.
- Hites, R. A., Foran, J. A., Carpenter, D. O., Hamilton, M. C., Knuth, B. A. and Schwager, S. J. (2004) 'Global Assessment of Organic Contaminants in Farmed Salmon', *Science*, 303, 226-229.
- Hu, D., Reardon, T., Rozelle, S., Timmer, P. and Wang, H. (2004) 'The Emergence of Supermarkets with Chinese Characteristics: Challenges and Opportunities for China's Agricultural Development', *Development Policy Review*, 22, 557-586.

- Hughes, D. (1994) *Building Partnerships and Alliances in the European Food Industry*. Wye, Kent: Wye College, University of London.
- Intergovernmental Panel on Climate Change (2001) *Climate Change 2001: Synthesis Report and Summary for Policymakers, approved at the IPCC Plenary XVIII (Wembley, United Kingdom, 24-29 September 2001)*. Geneva: IPCC Secretariat c/o World Meteorological Organization.
- International Energy Agency (2003) 'World Energy Outlook'.
- Jacobs, M. N., Covaci, A., Gheorghe, A. and Schepens, P. (2004) 'Time Trend Investigation of PCBs, PBDEs, and Organochlorine Pesticides in Selected n-3 Polyunsaturated Fatty Acid Rich Dietary Fish Oil and Vegetable Oil Supplements; Nutritional Relevance for Human Essential n-3 Fatty Acid Requirements', *Journal of Agricultural and Food Chemistry*, 52, 1780-1788.
- Jones, A. (2002) *Eating Oil In Sustain*, London.
- Kaput, J. and Rodriguez, R. L. (2004) 'Nutritional genomics: the next frontier in the postgenomic era', *Physiology & Genomics*, 16, 166-177.
- Lang, T. (1998) Towards a food democracy, In (Eds, Griffiths, S. and Wallace, J.) *Consuming Passions: food in the age of anxiety* Manchester: Manchester University Press.
- Lang, T., Barling, D. and Caraher, M. (2001) 'Food, social policy and the environment: Towards a new model', *Social Policy & Administration*, 35, 538-558.
- Lang, T. and Heasman, M. (2004) *Food Wars: the global battle for mouths, minds and markets*, London: Earthscan.
- Lawrence, F. (2004) *Not on the Label*, London: Penguin.
- Lomas, J. (2000) 'Connecting research and policy', *Canadian Journal of Policy Research*, 1, 140-144.
- Marsden, T., Flynn, A. and Harrison, M. (2000) *Consuming Interest: The Social Provision of Foods*, London: UCL Press.
- McMichael, A. J. (2001) *Human Frontiers, Environment and Disease*, Cambridge: Cambridge University Press.
- Millstone, E. (1986) *Food Additives*, Harmondsworth: Penguin.
- Ministry of Family and Consumer Affairs' Veterinary and Food Administration (2005) *Fruit and vegetables – daily intake*. Copenhagen: Veterinary and Food Administration.
- Ministry of Health and Welfare Supreme Scientific Health Council (2002) *Dietary guidelines for adults in Greece*. Athens: Ministry of Health and Welfare.
- Nestle, M. (2002) *Politics of Food*, Berkeley: University of California Press.
- Paxton, A. (1994) *The Food Miles Report*. London: Sustainable Agriculture, Food and Environment (SAFE) Alliance.
- Pew Oceans Commission (2003) *America's Living Oceans: Charting a Course for Sea Change*. Washington DC: Pew Charitable Trusts.
- Porter, D. (1998) *Health, Civilisation and the State. A History of Public Health from Ancient to Modern Times*, London: Routledge.
- Pretty, J. N., Ball, A. S., Lang, T. and Morison, J. I. L. (2005) 'Farm Costs and Food Miles: An Assessment of the Full Cost of the UK Weekly Food Basket', *Food Policy*, 30, 1-20.
- Raven, H. and Lang, T. (1995) *Off our Trolleys?: food retailing and the hypermarket economy*. London: Institute for Public Policy Research.
- Reardon, T. and Swinnen, J. F. M. (2004) 'Agrifood Sector Liberalization and the Rise of Supermarkets in Former State-Controlled Economies: Comparison with other developing countries', *Development Policy Review*, 22, 515-523.
- Rimlinger, G. V. (1971) *Welfare policy and industrialization in Europe, America and Russia*, New York: John Wiley.
- Rowntree, B. S. (1902) *Poverty: a study of town life*, London: Macmillan.
- Rowntree, B. S. (1913) *How the Labourer Lives*, London: Thomas Nelson & Sons.
- Rowntree, B. S. (1921) *The Human Needs of Labour*, London: Longmans.
- Rowntree, B. S. (1941) *Poverty and Progress*, London: Longmans.
- Royal Commission on Environmental Pollution (2004) *Turning the tide: addressing the impact of fishing on the marine environment, 25th report*. London: Royal Commission on Environmental Pollution.
- Smith, D. F. (Ed.) (1996) *Nutrition Scientists and Nutrition Policy in the 20th Century*, London: Routledge.
- Sugar Association (USA) (2003) *WHO Report on Diet, Nutrition and Prevention misguided*. Washington DC: The Sugar Association.
- Thrupp, L.-A. (1995) *Bittersweet Harvests for Global Supermarkets*, Washington DC: World Resources Institute.
- Townsend, P., Davidson, N. and Whitehead, M. (1990) *Inequalities in Health: the Black Report and the Health Divide*, Harmondsworth: Penguin.
- Trienekens, J. H. and Zuurbier, P. J. P. (Eds.) (1996) *Proceedings of the 2nd International Conference on Chain Management in Agri- and Food Business*, Wageningen, the Netherlands: Department of Management Studies, Wageningen Agricultural University.
- Tudge, C. (2004) *And so shall we reap*, London: Penguin.

US Department of Agriculture (2000) *Dietary Guidelines for Americans 2000*. Washington DC: US Department of Agriculture Center for Nutrition Policy and Promotion.

Vorley, B. (2004) *Food Inc.: Corporate Concentration from Farm to Consumer*. London: UK Food Group.

Walker, C. and Cannon, G. (1983) *The food scandal*, London: Century.

WHO (2004) *Global strategy on diet, physical activity and health*. Geneva: World Health Assembly.

Wood, T. B. and Gowland Hopkins, F. (1915) *Food Economy in War Time*, Cambridge: Cambridge University Press.