Public Health (2006) **120**, 30–41

ELSEVIER

PUBLIC HEALTH

JOURNAL OF THE ROYAL INSTITUTE OF PUBLIC HEALTH

www.elsevierhealth.com/journals/pubh

Food, the law and public health: Three models of the relationship

Tim Lang

Centre for Food Policy, City University, Northampton Square, London EC1V 0HB, UK

The role of law in the governance of the relationship between food and public health is being altered by the changed structures and dynamics of modern food systems. A series of crises in food and health in the 1980s and 1990s shook up public health law throughout the world, providing a much needed modernization push, mostly over food safety.[1] Nevertheless, such is the pace and scale of change in the food supply chain — a near permanent state of change — that public health is being stretched by a new set of dynamics in which perfectly legal actions by food marketers (product-developers, technologists and the food businesses pursuing market share) have a sometimes unwitting impact on public health. The food system's modern dynamics — overproduction, brand-led marketing, highly processed value-added foods, and more— have contributed to the emergence of the current profile of diet-related ill-health, dominated by non-communicable diseases (NCDs).[2,3]

The role of law within these dynamics is problematic. There is a significant modern literature analysing the dynamics between the state and corporate systems,[4,5] echoed by a neo-liberal policy concern about excessive regulatory burden,[6] but the theoretical location of food, law and public health has not perhaps received its due attention. There is a rich seam to mine. Whereas in the 19th century, there was a long struggle to persuade the state to regulate adulterated food, today there is a struggle to contain not just over-supply of foods unhelpful for health but also poor quality foods and a pattern of eating which is slow, not quick, in contributing to premature mortality and morbidity. The role of the law as protection is thus stretched and reshaped. Can it prevent the NCDs which now dominate world health,[3] or is this a matter of choice? Until the early 2000s, much public health and diet debate focused on food safety, but the obesity pandemic has brought to a policy fore strong evidence of the burden of NCDs.

Conceptions of the relationship

This paper reviews different conceptions of how the relationship between food, health and the law can be conceived. Three models of the role of food law are discernible. In the first, a 'traditional' model posits that it is the state which sets laws and regulations that frame what the supply chain can and cannot do (Fig. 1a). The second model posits a duality in food governance (Fig. 1b), in which state and corporations compete for regulatory influence. This model has been promoted by studies highlighting the influence of food corporations at national and international levels. They shape not just food supply but culture (through marketing, advertising etc).[7–9] The third or 'triangular dynamic' model notes that despite this undoubted corporate power over what people eat (and how,

E-mail address: t.lang@city.ac.uk.

0033-3506/$ - see front matter
doi:10.1016/j.puhe.2006.07.013

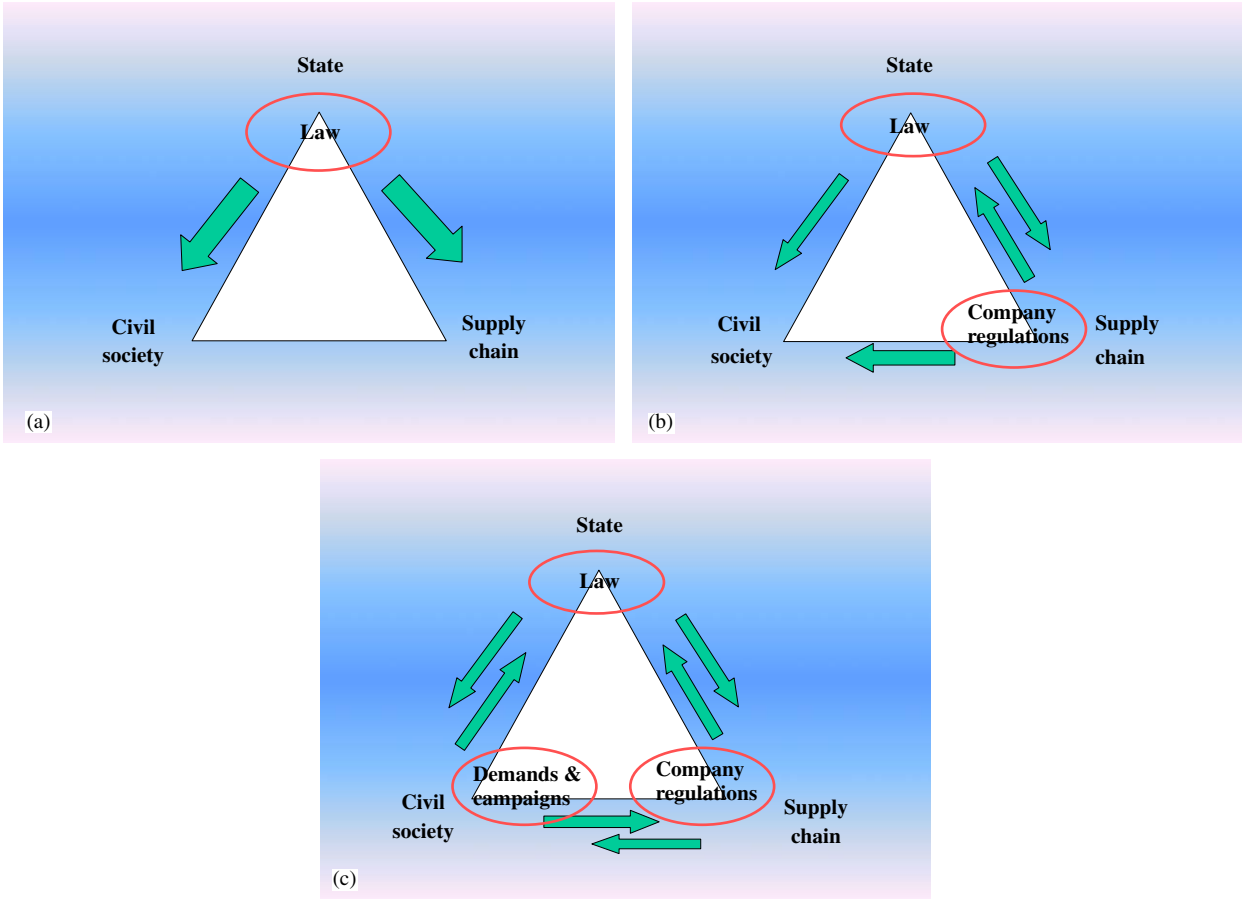

Fig. 1 (a) The 'traditional' model: food law frames the relationship between state, supply chain and civil society. (b) The 'modern duality' model: state law and company regulations. (c) The 'triangular dynamic' model of food law and governance.

where and when), civil society and popular pressure also frame food governance and law (Fig. 1c).

Each model has clear characteristics and lays emphasis on different social forces. The 'traditional' model is statist in that the legal framework is conceived as mainly set by Government, subject to due democratic process. In this model, public health is protected by the creation and maintenance of food standards. Meat, for example, can bring life-giving nutrients or contaminants, hence the role of government is to set and deliver compositional and hygiene standards. This benign state conception was articulated by the conservative English historian Arthur Bryant in 1929:[10] "[Conservatism] regards it as the duty of the modern State to ensure to the subject pure air and water, to see that his food is unadulterated, and to assist him to maintain himself and his family in sickness and old age. It lays it down as a cardinal principle that every citizen shall have a right, so far as is humanly possible, to a good education, open spaces, and healthy conditions of life. The modern State is the assurance company which assures these benefits to its citizens." (p.17) In the last quarter of the 20th century, it should be noted, UK conservatism shifted from this one-nation statist policy towards neo-liberalism.[11]

Many health-related food standards are still set, albeit at international rather than national level, for instance for residues and levels of acceptable contamination of foods. For Europeans, the EU has this role, but increasingly this is circumscribed by Codex Alimentarius Commission's role. Codex, a joint World Health Organization and Food and Agriculture Organization body, sets global standards with and for over 140 member states, and has major legal weight under World Trade Organization rules.

Although few could question the importance of national state role in legal processes, the nation state's role has been altered by more than just increasing internationalization of food law. The emergence of unprecedented levels of concentration in food sectors[12,13] (both within national markets and across borders) has generated a new force framing actual legislation and quasi-legal

regulations. The growth of cross-border food trade, through regional blocs such as the European Union (EU), the North American Free Trade Agreement (NAFTA) and Mercosur in Latin America, has enabled these food companies to exert enormous influence on what food is grown, and how, and in what food gets to end consumers, where and at what price — all of which has health implications.

A key mechanism by which corporations exert regulatory power is through international buying groups. Through their own regulatory structures such as EUREP, a worldwide consortium of companies working to its standards, they set the terms and conditions for food production.[14] EUREP, which began in Europe but now includes giant companies worldwide, sets pesticide residues, labelling and agricultural and process standards. It illustrates the dualism in standards-setting, proposed in Fig. 1b.[15] On the one hand there is the centuries-old system of public health law, albeit in new more internationalized formation, set by and theoretically accountable to democratic processes, and policed by state bodies. And on the other hand, there exists a parallel system of rules and regulations set by company contracts and specifications, policed by company buyers and inspectors, working increasingly to inter-corporate governance, and applying principles of traceability and 'due diligence' often to levels beyond those demanded by the state.

If the 'traditional' model is statist, the second model is characterized by marketization, industry self-regulation and guidelines in place of but sometimes backed by law. Indeed industry standards may sometimes be tougher than the state's. Equally, corporate interests are not backward in using consultation processes and other opportunities to ensure their interests are not damaged by formal state legislative proposals.[16,17]

In the duality model, who triumphs? One school argues that, bowed by the enormous purchasing power of the modern corporation, the 'modern' lean, facilitative state, is weak; de facto agency capture occurs.[16] Others suggest that food companies are more concerned about meeting consumer needs, and invest vast sums attempting to frame food culture to suit their product 'offer'. The law is unimportant in a world where advertising and its myriad variations such as texting, product placement, sponsorship shape consumer wants. In the UK food adspend is nearly £0.5 bn annually, 100 times government spend on food protection.[18] John Rawls' much cited equation of rights and responsibilities[19] does not easily fit in a world where McDonalds and Coca-Cola each spend over $2 bn a year on marketing, collectively four times the entire annual budget of the World Health Organization.[20] The issue is not whether consumerism is in ascendancy over citizenship but whether both are subsumed by marketization. Crucially, there is a question as to whether existing democratic institutions are accountable or whether a 'consumer votes' reality is replacing older notions of food governance.[21]

Against this view, the 'triangular dynamic' model proposes that both the other models underplay active civil society processes and pressures countering both agency capture and mainly dirigiste state legal processes. Consumer movements are not new. Indeed, part of the pressure that led to the great period of food law reform in the mid 19th century (discussed below) was active demands for legal rights to better food. This tradition of active legal demand has been a key feature of modern consumerism in general,[22,23] and of food activism in particular.[24]

Labelling: an illustration of the tension over law and health

Food labelling illustrates the long tension between interest groups over public health and wider social issues. In market theory, labels are a key mechanism for achieving efficiency. Informed consumers can decide on their food and thereby health. Labelling assumes rational choice. Consumers are invited to send signals through the point of sale to the supply chain. Since food and agricultural products entered the General Agreement on Tariffs and Trade (GATT) in 1994, there is no country whose regulations can be a legal 'island'. For countries already committed to facilitation of cross-border food trade such as the European Union, the Australia–New Zealand compact on food standards, or the North American Free Trade Agreement, issues such as labelling have taken centre stage in policy-making. They are key to the neo-liberal policy package in which unnecessary laws (including food regulations)[25] are deemed a burden on efficient production; sensible risk assessment and management procedures can prevent the vast bulk of consumer protection and safety problems; and therefore information at point of sale is a key to consumer choice. Moreover, labelling and other forms of consumer information are a core demand of the consumer movement, one of the four basic consumer rights articulated by President John F Kennedy in 1962, expanded to Consumers International's eight consumer rights.[26,27]

In reality, far from being a neutral mechanism, since the 1980s food labelling has been itself a battleground over what goes into the label, the format, verifiability, size, impact, and authority.[28,29] Different states have evolved their own rules. Different interest groups have argued for their concerns to be labelled: ethics, animal welfare, nutrition, environmental impact, residues, allergens, and more. Public health issues have been high profile in this evolving process. Content labelling came first — with the EU setting new standards by labelling additives with 'E' numbers. This was designed to assuage consumer worries about this modern form of adulteration, but in fact the E system exacerbated concerns.[30,31] Nutrition labelling was proposed from the early 1980s by public health bodies but has only been introduced slowly, meeting great resistance from processed food industries.[32,33]

In the European Union (EU), the creation of the Single Market from the mid–1980s brought new agreement on the necessity of labelling. There was considerable tension over how extensive that labelling might be. Should labels include ingredients? If so, should these be just listed or be given by weight? After two decades, the EC adopted quantitative ingredients declaration (QUID). Should it include nutrients? If so, which? In which format? Food NGOs have been vociferous for two decades in this battle over the nature and extent of labelling, arguing that consumer acceptability is the key criterion.[24]

In the UK, the Food Standards Agency backed a 'traffic lights system' — green, amber and red — developed originally by a public health NGO in response to a 1984 Committee on Medical Aspects of Food Policy (COMA) report calling for consumer labelling on fats. According to FSA, consumers find traffic lights simplest and easiest to aid discrimination between products,[34] but the food industry rejected the system, fearing discrimination against items such as confectionery and soft drinks. Manufacturers instead introduced — even before the FSA's decision-making process was completed — their own Guideline Daily Amounts (GDA) system, giving foods' contribution to a national total daily intake. They too argued that consumers found their system easiest to use.

This decade-long 'negotiation' between state, companies and consumer interests over nutrition labels — and where they should be located, on front or back of packets — boiled up into the open when Tesco, the largest food retailer in the UK (and world's fourth largest), took a lead in introducing GDAs in 2006.[35] Seven leading food manufacturers — Cadbury Schweppes, Mars/Masterfoods, Danone, Kellogg, Kraft, Nestlé, PepsiCo — quickly followed suit. Five of these put GDA labels on front of packet and two put them on the back. A fissure then followed between other UK retailers (but not Tesco) and food manufacturers.[36] Consumer groups united to accuse industry of a cynical pre-emptive strike before the Government's FSA had even finally decided on the traffic lights scheme, and of deliberately creating confusion.[37] The third largest UK food retailer, J Sainsbury, meanwhile adapted the UK Government's wheel of health (its equivalent to the US Dept of Agriculture's pyramid) when giving its labelling information. The UK's Food and Drink Federation, a 150 year old industry alliance, was overt in its defiance, insisting that '[t]he industry is committed to helping people construct a balanced diet by appropriate use of labelling backed by consumer education.'[38]

Even this short account suggests the complex dynamics between interest groups, and how the law or voluntary regulations in lieu of law are fraught with tension. But the examples also show how public health is but one factor in the policy cacophony. Nutritional information became a battleground, the outcome of which is still uncertain. Equally, the example suggests the influence in policy-making of civil society organizations for whom public health is but one interest.

Since the food crises of the late 1980s, civil society organizations worldwide have achieved a voice beyond their actual resources; they may be small and have limited finance but they have totemic influence. They bring subtle but divergent positions to the public health legal discourse. Consumerist organizations such as the Bureau Européen des Unions de Consommateurs (BEUC) see openness as key to making markets work; their role is to deliver the consumer side of the European economic vision. Heart health groups, on the other hand such as the European Heart Network (EHN), are more focussed on nutrient labelling as a health promotion tool, citing EU health commitments. Ecologically inclined consumer organizations focus more on food quality.[39]

For all interest groups, the challenge of labelling is how their constituency's interests can best be defined. What do consumers want or need to know? Is health a characteristic of particular food products or the process of their production? Genetic modification (GM) and residues of agrichemicals (pesticides) have been test cases for the latter view. After a long policy debate, the EC decided to on a moratorium on GM foods within the EU, and labelling of ingredients above a low threshold.[40] But in the case of pesticide residues it opted not to declare residues but to allow positive declaration

of foods supposedly residue-free marshalled by organic labelling rules, run in concert with organic food bodies. In practice, few foods are contaminant free and another principle comes into play: the proportionality of risk.

Food, health and the law: a long march?

As the evolving policy debates on an apparently simple issue such as food labelling suggests, the history of the relationship between the law, food supply chains and public health is in fact deep and complex.[22,41] The UK's system of trading standards laws, insisting that food is accurately sold and traded, can be traced to the 13th century. All cultures have such concordats, written or unwritten. Morality and ideology are part of this picture. In his seminal essay on the transition from the 'moral economy' of feudalism to the more individualist harshness of industrial capitalism, the English historian E.P.Thompson showed how the reactions by the English populous shaped and ultimately began to tame the new moral regime's harsher edges.[42,43] The late 18th and early 19th century individualized world of industrial towns which replaced feudalism fundamentally altered food linkages between people, place and community. In the new order, access to money determined who was fed. Riots and dissent were one response to this shift of public framework. Another was the creativity of the organized working class in developing the co-operative movement as an alternative food economy determined to deliver safe, health-enhancing, affordable food for ordinary people.[44] Alongside that social experiment was another legal channel of effort, the pursuit of generalized rights to pure food under the law. This, as we now consider, took most of the 19th century for England.

The role of food law is, on the surface, simple and good: to protect the public and to ensure that market relations are fair. Since the late 19th century UK food law has had as its core principle the statement that: '[f]ood shall be of the nature, substance and quality demanded.' First written into the 1875 Act, this wording was retained as the core ethos of the Food Safety Act 1990, enacted speedily in response to the 1988–90s food safety crisis. But the law disguises a complex history of struggle between the forces being discussed in this paper.

The modern English system of anti-adulteration laws came into existence over the 19th century after routine adulteration was exposed from the 1820s (see Table 1).[45] The first person comprehensively to produce evidence of the systematic adulteration of food in the UK was Frederick Accum in 1820. Accum's own words suggest that he, like Thompson, knew morality and ideology were intimately wrapped up in food and health law. In his 1820 Treatise on Adulteration, he wrote: '[t]he man who robs a fellow subject of a few shillings on the highway is sentenced to death' …but 'he who distributes a slow poison to the whole community escapes unpunished'.[46] His Treatise was heavily attacked and a year later he had to flee the country, on a charge probably trumped up by his opponents.[47]

Accum was a solitary scientist confronting food-related ill-health. Such figures fit the 'great people make history' analysis of progress. In fact, the breakthrough in legal structures emerged in the 1850s. The work of Dr Arthur Hassall of the Analytic Sanitary Commission and Dr Thomas Wakley editor of *The Lancet* is justly celebrated.[48] They were not so much solitary scientists appealing to rights, more a well-orchestrated campaign to take the issue of adulteration to the public.[45] Believing that science should serve the public good, in a remarkable series of reports in 1851–1854, analysing 2500 different food items, they ran what was essentially a campaign for food law reform. Working closely with *The Times*, they created the evidence, altered the public mood and thought about political processes that might deliver public health protection. Like Accum, they were aware of the ideological dimension to the public health task, but they organized to confront it. To achieve institutions, resources (local taxes) and personnel to monitor and improve public health through food entailed confronting the dominant policy framework of *laissez-faire*. They believed that the state not fate should redress imbalances determining life chances and quality when eating.

They argued too that legal change required appropriate institutional infrastructure. They were not alone. In England, key public health personnel had been empowered at the local level even before the landmark 1848 Public Health Act. In 1833, the role of Public Sanitary Inspectors was created, a role only revised in the 1950s with the creation of the Public Health Inspector and again in the 1970s with their reformulation as Environmental Health Officers. The 1848 Public Health Act established the institutional architecture for modern public health, with Local Boards of Health charged to appoint Officers of Health (later Medical Officers of Health; now, loosely, Directors of Public Health who oversee the health infrastructure including dietary issues); also Inspectors of Nuisances; and Local

Table 1 The long legal march to remove adulterated food in the UK, 1820–1899

1820	Frederick Accum publishes 'Treatise on Adulteration', the first exposure of routine adulteration. Accum presents his findings with an appeal that this is a consensual issue of equal import to all. He is scandalized and calls for action.
1821	Accum flees the country, accused of damaging library books in the Royal Society of Chemistry (of which he had been librarian). This was probably an orchestrated attack by his opponents.
1820–1850	There are various Parliamentary attempts to legislate against bad food but none succeed.
1840	Parliamentary select committee is set up to inquire into the circumstances affecting the health of the inhabitants of large towns with a view to improving sanitary arrangements for their benefit. Its report published in 1842. The third and last volume by Edwin Chadwick, a civil servant, is entitled 'General Report on the Sanitary Condition of the Labouring Population of Great Britain.'
1848	1st *Public Health Act* is passed following a Royal Commission report of 1845 which proposes that local authorities be given powers to enforce sanitary arrangements. The Act creates a general Board of Health which can empower Local Boards of Health either if conditions are bad enough or if enough rate-payers call for one. The principle of prevention emerges.
1851–1854	Dr Thomas Wakley the editor of The Lancet works with Dr Arthur Hassall whom he set up in the impressive sounding Analytical Sanitary Commission. Hassall (chief analyst and sole author of the Commission's reports) tests 2,500 food items in 1851-54, reported by the Lancet.
1855	A Parliamentary Select Committee inquiry into food adulteration is set up.
1860	1st *Food and Drink Act* is passed. This allows for summary proceedings and creates the role of Public Analysts to inspect and report on food.
1861	Food industry creates The Grocer, as a journal to resist the attacks coming from consumer-friendly reformers and to defend laisser-faire. (It is still publishing weekly.)
1868	*Pharmacy Act* forbids sale of injurious drugs.
1872	An *Amendment* provides for the creation of a public analysts (who have created the Society of Public Analysts in the same year) and an inspectorate but this is unenforceable because the prosecution has to prove knowledge (*mens rea*) by the vendor that goods were adulterated.
1873	Judges of the Court of Queen's Benches decide in favour of consumers by abolishing *mens rea*. They impose liability on food businesses (who are decidedly unhappy).
1875	*Sale of Food and Drugs Act* repeals the 1860 and 1872 Acts and removes business liabilities; a triumph for trade lobbies but engenders furious public interest reaction. Principle is that '[f]ood shall be of the nature, substance and quality demanded.'
1879	*Amendment to 1875 Sale of Food and Drugs Act* makes food business liability enforceable.
1887	The *Margarine Act* confirms the principle of business liability.
1899	The *Food and Drugs Act* 1899 formalizes liability.

Surveyors. The post of public analyst — the work of Hassall in the 1850s — was formalized in the 1960s. Today, these personnel exist, albeit reshaped, but have less influence over the drivers of food supply and health. That shaping occurs either at regional or at the global level of food governance, where corporate and multilevel state power tends to be focussed.

The emergence of the European level of food and health law

Many European and industrialized countries have not dissimilar traditions and histories to the UK's; they are often hidden behind the apparent rationality of national systems of food rules, regulations and laws. Famously, Germany had its *Rheinheitsgebot*, a law dating from 1516 governing purity of beer and other products. This was often described as a consumers' friend positing, as it did, that beer could only be made with simple and restricted ingredients; no added sugar, for instance, was permitted. The principles were purity of ingredients and simplicity of recipe. At the same time, the *Rheinheitsgebot* was in part created to benefit barley growers and to keep merchants offering foreign wheat and rye out of the lucrative beer market. The law, as we know, may be an arbiter of health and commerce, but it is not necessarily unsullied by commercial drivers.

Whatever the compromises they represent, laws such as the *Rheinheitsgebot*, like the laws of other European Union Member States (MS), was overtaken by the *Single European Act* 1986 introducing a new food and drink framework. All European MS food laws, including alcohol, were swept away in the new Single European Act's creation of the single market.[49] After two decades of trying to create a

new legal framework on a product-by-product basis, by the mid-1980s the European Commission instead realized a different policy route and adopted a 'horizontal' framework that came into effect in 1992 (see Table 2). The 1988 Cecchini report for the EC, at the time the largest economic study of its kind, calculated the advantages of the single market. It argued that savings for the food industry from removing national differences would be significant.[50] The pursuit of 'euro-recipes' for food products as diverse and culturally resonant as jam and sausages — both mired in 15 years of fruitless negotiation — was abandoned and replaced by the new approach in which a diversity of products and processes were permitted — to allow different EU countries' traditions to co-exist and be

Table 2 The creation of a European food and public health law regime, 1980-2000s

1957	Treaty of Rome creates legal basis for trade alliance of 6 founding Member States.
1970–1980s	Attempts to harmonize EU member State food legislation by creating euro-recipes for different food products.
1980–1990s	Persistent food safety crises in Europe (additives, pesticides, hormones, food irradiation in the 1980s; animal health in the 1990s). Specific crises in France (hormone residues in meat 1980), Spain (toxic olive oil 1981ff), Austria (ethylene glycol added to wine 1985), Sweden (pesticides 1986), UK (salmonella, 1988ff) Belgium (dioxin in poultry meat 1999), Germany (BSE found 2000), the Netherlands (foot and mouth disease in 2000).
1985	UK Food and Drink Federation publishes advice to 'housewives' (sic) to be more careful with hygiene in the home.
1986	First case of bovine spongiform encephalophathy (BSE) in England. Leads to a EU decade of BSE crises in Portugal, Finland, France, Germany, Austria, Italy, UK, Ireland.
1986	*Single European Act* is passed. This prepares for liberalization of food trade within the European Union. It prepares the policy ground for the '1992' Single market process.
1987	London Food Commission publishes *Food Adulteration and How to Beat it* with first independent account of food poisoning, 'new' adulteration and public health. European NGOs begin working in an informal alliance on food safety. MEPs see the issue as opportunity to hold the European Commission and national Member States to account.
1988	UK Health Minister Mrs Edwina Currie MP blames salmonella on contamination in eggs. This leads to European press outcry and collapse of sales. Minister forced to resign, but evidence shows she is correct.
1988	Cecchini Report argues that European food industry will benefit from sweeping away 'unnecessary' food regulations hindering trade.
1988–1989	Wide-scale public debate about food safety — whose fault and responsibility is it? Active alliance of NGOs and media attack the impossibility of individual self-protection.
1990	UK Conservative Government passes *1990 Food Safety Act* passed placing onus on business to ensure food is safe.
1990	EC imposes restrictions on live cattle exports.
1992	*Maastricht Treaty* gives the EC powers for 'the prevention of diseases.'
1996	*Amsterdam Treaty* toughens the Maastricht powers to enable 'a high level of human health protection be ensured in the definition and implementation of all Community policies and activities.'
1996	20 March — UK Dept of Health announces that 'BSE has jumped to humans.' This is global news. Government discredited.
1996	European Parliament sets up enquiry as to why EU system of veterinary protection has not worked. The report embarrasses EC President Jacques Santer to come to the Parliament to make an unprecedented apology and promise of reform.
1997	Report produced by Prof Phil James outlines the role for a new UK Food Standards Agency. This is presented to new Prime Minister Tony Blair on the day after the landslide election of Labour Government committed to tackle food safety institutional reform.
1999	The entire EC Commission resigns, in part undermined by food safety crises.
1999	Report from 3 Professors (James, Kemper and Pascal) recommends the creation of a new EU Food and Public Health Authority, modelled in part on the US Food and Drug Administration.
2000	EC *Food Safety Directive* proposes new EU *General Food Regulation (law)* and the creation of a new European Food Safety Authority.
2002	EU *General Food Law*2002/178. EFSA starts work.
2004	European parliament votes to create a new European Centre for Disease Prevention and Control.
2005	Traceability along food supply chain becomes EU law.

traded across internal borders — as long as they were safe and could be traced. The current legal focus on traceability and consumer information addressed above was part of that legal policy package.

It was a British Commissioner who was charged with introducing this ambitious policy change. Lord (Arthur) Cockfield was successful in driving through the Single European Act (SEA) of 1986 but he lost his job for his pains. Although a British Conservative, and although Mrs Thatcher was one of the first MS leaders to sign the SEA, she recalled Lord Cockfield as a sacrifice to the immediate reservations that began to be expressed by the New Right and the populist press; even then British distaste was being expressed for the supra-national European edifice. In 1988, Mrs Thatcher repositioned herself as the leading eurosceptic with her speech at Bruges.[51]

But the deed was done. The new legal architecture for the world's largest consumer market of 12 MS in 1987—25 MS by 2005 and still expanding — was in place, and generated the tensions which still characterize food and public health governance. What can national public health bodies do in a regional and globalizing food system and in a world where disease patterns are not immediate in following food consumption? Unsafe food is quick to show results; malconsumption's illhealth effect may take decades and not be product-specific. This poses a challenge for what is meant by public health.

Europe's 'classical' tradition of public health implied a strong state with the capacity to alter the material circumstances determining health such as housing, air, water, food, factory conditions.[52] Sometimes referred to as sanitarianism, this approach could no longer be applied by a supranational federation of states such as the EU, especially one committed to give priority to economic liberalization. The function of the state in the mercantilist single market is facilitative rather than dirigiste or interventionist. Hazard Analysis Critical Control Point (HACCP) and risk analysis have replaced closure orders and re-engineering. Risk management is the core tool for assessing public health standards in supply chains. In environmental policy, too, risk analysis has been linked to liability (e.g. in the Environmental Liability Directive 2004/35/CE 21 April 2004).

The EU also proposed investment in 'social cohesion' as part of the new legal policy package. This has advanced social and human rights, but compared with the emphasis on economic support and the removal of barriers to trade, public health progress and investment has been slow. The Common Agricultural Policy receives €45 billion a year, just under half the total EU budget whereas the new public health Action Programme receives €312 millions over five years (for projects, health information, statistics). When EC public health legal gains have been introduced, they have sometimes been in response to crises.

The food corporate sector was quick to use the '1992' process to rationalize factories, invest in pan-European distribution and diversify product ranges. But the advantages they gain from the single market jaded with the BSE crisis, particularly once variant Creutzfeld Jakob Disease (vCJD) was shown in 1996 to have 'jumped' to humans. Until then, proponents of public health had to argue — and still do — against those who see health as a fig leaf for protectionism, an excuse for old-style statist intervention which might add unnecessary burdens on industry. The BSE and other food safety crises challenged that ideology both in and outside the European Commission. In 1997 a European Parliament inquiry accused the EC of maladministration, leading to an unprecedented apology from EC President Jacques Santer and the resignation of the whole Commission shortly after.[53,54]

The BSE crisis led to a strengthening of the weak Maastricht Treaty health goals with the 1996 Amsterdam Treaty, consolidated in the Treaty of Nice of 2000. Civil society groups actively promoted a reinvigorated role for the state in the Amsterdam Treaty, angry at the advantages previously give to cross-border trade and the corporate sector. Article 152 Article of the Amsterdam Treaty requires that 'a high level of human health protection be ensured in the definition and implementation of all Community policies and activities.' EC action should be directed towards 'improving public health, preventing human illness and diseases and obviating sources of danger to human health' rather than simply 'the prevention of diseases' signified by the Maastricht Treaty.

Despite the welcome strengthening in the Amsterdam Treaty, no health audit of the Common Agricultural Policy, still by far the largest budget of the EU, has yet been conducted.[55,56] The lobby to implement Article 152 across food supply has been weak.[56,57] The budget of DG-Sanco — responsible for consumer and public health affairs — is small compared to others, and DG Agriculture's dwarfs all others.[55]

Conclusions

This paper has proposed that food sits at the intersection of a complex relationship between

public health and the law. Seemingly simple issues such as labelling descend into tortuous struggles between different interests. Voluntary schemes vie with mandatory ones. Europe may subscribe to human rights but has yet fully to apply human rights codes to food poverty, for instance.[58] The long struggle to win the legal right that all food should be presumed to be health-enhancing or not adulterated and unhealthy is not a new public health demand. Nor is it restricted to affluent societies.[59] But today's complex supply chain and myriad food products — with hypermarkets stocking over 20,000 food items — means that choice takes policy precedence over food products' cumulative health impact.

The three models of food, health and law presented here are each plausible, but the 'triangular dynamic' model allows most easily for the *public* role within public health. As was shown for labelling, adulteration and the evolution of EU food law, neither the traditional model (Fig. 1a) nor the modern duality model (Fig. 1b) adequately portrays ebbs and flows in the (im)balance of health forces. If the traditional model implies a 'top down' Hobbesian state or Arthur Bryant's paternalist conservative state, the duality model assigns equally monodirectional power to corporate food giants.[60] This is a Naderite analysis of policy dynamics: large corporations 'conspiring' to exploit 'little guys'.[23,61] Modern food multinationals are certainly immensely powerful, but they have Achilles' heels; health can be one. Much depends on whether companies listen to the evidence. Some do, but how extensively is unclear.[62] Also, sole companies however powerful cannot tackle an entire food culture, any more than individuals can shift whole populations. The case for a more proactive state in tackling NCDs and creating new legal frameworks is emerging. Tackling obesity, for instance, requires collaborative action and a firm commitment to change markets, not just abandon public health to them, leaving consumer behaviour to the whim of 'choice' which can be moulded by powerful consciousness industries.[3,63,64]

Timing, persistence, good evidence, movements, the forging of arguments and bodies in unlikely alliances, all these can help force even powerful food companies to engage with a public health rather than an individualist approach. The threat of legal change — for instance legal controls over food advertising or the imposition of fat taxes — has brought hitherto reluctant players to the negotiating table on childhood obesity.[65,66] Companies which for years steadfastly denied the diet-(ill)health link now see 'healthy' food as a business opportunity, as long as this remains in niches rather than a demand across all foods. In the past, as today, the offer of 'pure' food could be presented as both moral and good business. How deep a corporate social responsibility approach to tackling food and health, short of legislation, remains to be seen.[20] The role of civil society bodies campaigning for legal change is undoubtedly a key element in this evolving policy process.

Good health requires a good food culture, but this is hard to legislate for. Public health laws cannot deliver on their own; they require a complement of institutions, movements and policies as well. Today's drivers of good food supply are mainly regional or global. The EU General Food Law 2002 is more important, as is the 1994 General Agreement in Tariffs and Trade (GATT) which brought food and agricultural commodities into world trade rules, than national laws which in fact have to be redesigned to accommodate them. The 1994 GATT, for instance, created a new legal structure including disputes settlement procedures, provisions for redress, fines and binding judgments, and most importantly a new legally sanctioned international institution, the World Trade Organization. In the 1990s, too, patent laws began to invoke intellectual property rights throughout the food chain, from seeds to food processes.[67] The modern food legal architecture, in offering a narrow conception of public health as food safety, has left public health legal frameworks unable to address what is necessary.

Good dietary health requires a positive environment which the law has difficulties in legislating for. The principle appears to be *de minimis*. As the Wanless reports showed for the UK, cheap food policies carry externalized cost burdens from diet-related ill-health.[68,69] Self-regulation may fit ideologically but has a weak evidence base of effectiveness. Voluntary codes of conduct — on advertising, marketing to children, labelling, product designs — indicate that some food companies might move in a healthier direction, but motives as with the C16th *Rheinheitsgebot* may not be entirely altruistic. Large investment in brands,[70,71] the pursuit of market share, and thin policy thinking such as that 'there is no such thing as bad foods, only bad diets' are at stake.[62,72]

In this fluid situation, public health groups are growing in confidence, and some food industry advisors recommend industries 'bend' a little in order not to lose control over marketing and brand-power.[73] It remains to be seen whether the new coalitions of interest between public health professionals, campaigners and civil society organizations grow in influence as they demand legal rights to protect public health, or whether new offers in the name of

corporate social responsibility suffice to defuse public health tensions. Whichever scenarii emerge, tensions over food law are likely. The policy question is: which interests will triumph in that process?

References

1. Van Zwanenberg P, Millstone E. *BSE: risk, science, and governance*. Oxford, New York: Oxford University Press; 2005.
2. WHO/FAO. Diet, Nutrition and the prevention of chronic diseases: report of a Joint WHO/FAO Expert Consultation. *WHO Technical Report Series: Technical Report 916*. Geneva: World Health Organisation/Food and Agriculture Organisation of the United Nations; 2003.
3. WHO. World Health Report 2002: reducing risks, promoting healthy life. Geneva: World Health Organisation; 2002.
4. Held D. *Global transformations : politics, economics and culture*. Cambridge: Polity Press; 1999.
5. Held D, Koenig-Archibugi M. *Global governance and public accountability*. Oxford: Blackwell; 2005.
6. Lang T, Heasman M. Diet and nutrition policy: a clash of ideas or an investment? *Development* 2004;**47**(2):64–74.
7. Goodman D, Watts MJ, editors. *Globalising food: agrarian questions and global restructuring*. London: Routledge; 1997.
8. Fold N, Pritchard B. *Cross-continental food chains: cross-continental food chains*. London: Routledge; 2005.
9. Burch D, Goss J, Lawrence G. *Restructuring global and regional agricultures : transformations in Australasian agri-food economies and spaces*. Aldershot: Ashgate; 1999.
10. Bryant A. *The spirit of conservatism*. London: Methuen & Co. Ltd.; 1929.
11. Cockett R. *Thinking the unthinkable: think-tanks and the economic counter-revolution, 1931–1983*. London: Harper Collins; 1994.
12. Vorley B. *Food Inc.: corporate concentration from farm to consumer*. London: UK Food Group; 2004.
13. Lang T, Heasman M. *Food wars: the global battle for mouths, minds and markets*. London: Earthscan; 2004.
14. EUREP. *EurepGAP: the global partnership for safe and sustainable agriculture*. Brussels: EUREP; 2006.
15. Barling D, Lang T. Trading on Health: Cross-continental production and consumption tensions and the governance of international food standards. In: Fold N, Pritchard B, editors. *Cross-continental food chains: cross-continental food chains*. London: Routledge; 2005. p. 39–51.
16. Avery N, Drake M, Lang T. *Cracking the codex: a report on the codex alimentarius commission*. London: National Food Alliance; 1993.
17. Rothstein H. Risk management under wraps: self-regulation and the case of food contact plastics. *Journal of Risk Research* 2003;**6**(1):61–74.
18. Lang T. Food and Health Wars: a modern drama of consumer sovereignty, Economic, and Social Research Council, and Arts and Humanities Research Board Cultures of Consumption Programme, Cultures of Consumption Working Papers series, no 14. London: Birkbeck College ESRC Cultures of Consumption programme 〈http://www.consume.bbk.ac.uk〉, 2004.
19. Rawls J. *A theory of justice*. Cambridge, MA: Harvard University Press; 1971.
20. Lang T, Rayner G, Kaelin E, Crossley R, Backman P. *The Food Industry, Diet, Physical Activity and Health: a review of reported comittments and practice of 25 of the world's largest food companies, measured against the goals of the World Health Organisation Global Strategy on Diet, Physical Activity and Health*. London: City University Centre for Food Policy; 2005.
21. Gabriel Y, Lang T. *The unmanageable consumer*. London: Sage; 1995.
22. Cranston R. *Consumers and the law*, 2nd ed. London: Weidenfeld and Nicolson; 1984.
23. Gabriel Y, Lang T. *The unmanageable consumer: contemporary consumption and its fragmentation*, 2nd Edn. London: Sage; 2006 (2nd Edn.).
24. Lang T. Going public: food campaigns during the 1980s and 1990s. In: Smith D, editor. *Nutrition scientists and nutrition policy in the 20th century*. London: Routledge; 1997. p. 238–60.
25. Better Regulation Task Force. *Make it simple make it better*. London: Better Regulation Task Force (now Better Regulation Commission of the UK Government); 2004.
26. Kennedy JF. Special Message on Protecting the Consumer Interest: Statement read by President John F Kennedy Thursday, 15 March 1962. Washington, DC, 1962.
27. Consumers International. *Consumer rights*. London: Consumers International; 2006.
28. Black AE, Rayner M. *Coronary Prevention Group. Just read the label : understanding nutrition information in numeric, verbal and graphic formats*. London: HMSO; 1992.
29. Lang T. The contradictions of food labelling policy. *Information Design Journal* 1995;**8**(1):3–16.
30. Millstone E. *Food additives*. Harmondsworth: Penguin; 1986.
31. London Food Commission. *Food adulteration and how to beat it*. London: Unwin Hyman; 1987.
32. Cannon G. *The politics of food*. London: Century; 1987.
33. Nestle M. *The Politics of Food*. Berkeley, CA: University of California Press; 2002.
34. Food Standards Agency. *Food labelling: signposting*. London: FSA; 2006.
35. Mowbray S. The Green Light for GDA Labels? *The Grocer* 2006;**229**(7742):38–9.
36. Wiggins J. Retailers clash with food companies over nutritional labelling scheme. *Financial Times* February 11 2006, p. 2.
37. Wiggins J. Food companies go their own way on labelling. *Financial Times* February 9 2006, p. 17.
38. Mowbray S, Doult B. Industry jumps the lights. *The Grocer* 2006;**229**(7741):4–5.
39. Harrison R, Newholm T, Shaw D, editors. *The ethical consumer*. London: Sage; 2005.
40. EC. Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products from genetically modified organisms and amending Directive 2001/18/EC (OJ No L.268/24, 18.10.2003). Official Journal 2003;L:268/24.
41. Fallows SJ. *A user's guide to British food law*. Bradford: Horton; 1991.
42. Thompson EP. The moral economy reviewed. In: Thompson EP, editor. *Customs in common*. Harmondsworth: Penguin; 1993. p. 259–351.
43. Thompson EP. The moral economy of the English crowd in the eighteenth century. In: Thompson EP, editor. *Customs in common*. Harmondsworth: Penguin; 1993 [1971]. p. 185–258.
44. Birchall J. *Co-op: the people's business*. Manchester: Manchester University Press; 1994.
45. Paulus I. *The search for pure food*. Oxford: Martin Robertson; 1974.

46. Accum F. *A treatise on adulterations of food and culinary poisons*. London: Longman; 1820.
47. Coley NG. The fight against food adulteration. *Education in Chemistry* 〈http://www.rsc.org/Education/EiC/issues/2005Mar/Thefightagainstfoodadulteration.asp〉 2005(March).
48. Coley NG. The fight against food adulteration. *Education in Chemistry (of the Royal Society of Chemistry)* 2006; 〈http://www.rsc.org/Education/EiC/issues/2005Mar/Thefightagainstfoodadulteration.asp〉.
49. Commission of the European Communities. Single European Act. Official Journal 1986;OJ L 169 of 29.06.1987(29 June 1987).
50. Cecchini P, Catinat M, Jacquemin A. *The European challenge 1992: the benefits of a single market*. Aldershot: Wildwood House; 1988.
51. Thatcher M. speech to the College of Europe in Bruges (Belgium), 1988.
52. Porter D. *Health, civilisation and the state. A history of public health from ancient to modern times*. London: Routledge; 1998.
53. European Parliament. Report on alleged contraventions or maladministration in the implementation of Community law in relation to BSE. Rapporteur: Mr Manuel Medina Ortega. 7 February. DOC EN
54. Santer J. Speech at the Debate in the European Parliament on the report into BSE by the Committee of Enquiry of the European Parliament. Speech 97/39 〈http://europa.eu.int/abc/doc/off/bull/en/9701/p203001.htm〉, 1997.
55. Elinde LS. *Public health aspects of the EU Common Agricultural Policy*. Stockholm: Statens Folkhalsoinstitut/National Institute of Public Health; 2003.
56. Lang T. European Agricultural Policy: is health the missing link? *Eurohealth* 2004;**10**(1):4–8.
57. Lang T. EU Food and Nutrition Policies and their impact on health. Report for EU Main Public Health Issues project, co-ordinated by Société Francaise de Santé Publique for the Commission of the European Communities. Paris: Sociéte Francaise de Santé Publique, 1998; EU Food and Nutrition Policies and their impact on health. Report for EU Main Public Health Issues project, co-ordinated by Sociéte Francaise de Santé Publique for the Commission of the European Communities. Paris: Société Francaise de Sante Publique.
58. Eide WB, Kracht U, editors. *Food and human rights in development, Vol I: legal and institutional dimensions and selected topics*, 1st ed. Antwerp, NL: Intersentia; 2005.
59. Farmer P. *Pathologies of power: health, human rights, and the new war on the poor*. Berkeley, CA: University of California Press; 2005.
60. Korten DC. *When corporations rule the world*, 2nd ed. Bloomfield CN: Kumarian Press Inc.; 2001.
61. Nader R. *Unsafe at any speed; the designed-in dangers of the American automobile*. New York: Knightsbridge Publishing; 1965/1991.
62. Langlois A, Zuanic PE, Faucher J, Pannuti C, Shannon J. *Obesity: re-shaping the food industry*. London: J.P. Morgan Global Equity Research; 2006. p. 112.
63. WHO. Obesity: preventing and managing the global epidemic. Report of a WHO Consultation. WHO Technical Series 894. *WHO technical series*. Geneva: World Health Organisation; 2000.
64. WHO. *Global strategy on diet, physical activity and health*. Geneva: World Health Assembly; 2004.
65. Strnad J. "Conceptualizing the "Fat Tax": The Role of Food Taxes in Developed Economies." Working Paper, September 2002. *Working paper*. Palo Alto, CA: Stanford Law School; 2004.
66. Caraher M, Landon J. The impact of advertising on food choice: the social context of advertising. In: Shepherd R, Raats M, editors. *The psychology of food choice*. London: CABI; 2005.
67. Abbott FM. *The Doha Declaration on the TRIPS Agreement and Public Health and the Contradictory Trend in Bilateral and Regional Free Trade Agreements. Occasional Paper 14*. Geneva: Quaker United Nations Office; 2004.
68. Wanless D. *Securing our future health: taking a long-term view*. London: H M Treasury; 2002.
69. Wanless D. *Securing good health for the whole population*. London: H M Treasury; 2004.
70. Lury C. *Brands: The logos of global economy*. London: Routledge; 2004.
71. Aaker DA, Biel AL. *Brand equity and advertising: advertising's role in building strong brands*. Hillsdale, NJ: Lawrence Erlbaum Associates; 1993.
72. Langlois A, Adam V, Powell A. *Food Manufacturing: obesity the big issue*. London: J P Morgan European Equity Research; 2003.
73. Henley Centre. *Fat is a strategic issue*. London: Henley Centre; 2004.

Commentary on "Food, the law and public health"

Tim Lobstein[a,b,*]

[a]*International Obesity TaskForce, London*
[b]*Science Policy Research Unit, University of Sussex, Falmer, Brighton, Sussex BN1 9SH, UK*

The word 'law' can be taken in two ways: it can refer to the use of legislation as a means of shaping social interactions (and, in the present case, as a

*Corresponding author.
E-mail address: T.J.Lobstein@sussex.ac.uk.

0033-3506/$ - see front matter © 2006 Published by Elsevier Ltd on behalf of The Royal Institute of Public Health.
doi:10.1016/j.puhe.2006.07.012