

Article

What Food is to be Kept Safe and for Whom? Food-Safety Governance in an Unsafe Food System

Martha McMahon

Department of Sociology, University of Victoria, Victoria, BC V8W 3P5, Canada;

E-Mail: author1@mcmahon@uvic.ca; Tel.: +1-250-721-6351; Fax: +1-250 721-6217

Received: 30 August 2013; in revised form: 23 September 2013 / Accepted: 8 October 2013 /

Published: 22 October 2013

Abstract: This paper argues that discussion of new food-safety governance should be framed by the realization that the dominant food system within which food-safety governance is designed to makes food safe is itself a structural and systemic sources of food un-safety, poor health and a future of food insecurity for many. For some, an appropriate policy response lies in addressing the connections between the food system and diseases such as heart disease, obesity and diabetes. For others it means subsuming food-safety governance within food security governance. For yet others, safe food implies food sovereignty governance and the primacy of a climate change resilient food system. Conventional approaches to food-safety governance are typically framed within a liability model of responsibility that has limited usefulness for addressing institutional, structural or systemic sources of harm such as those critics increasingly attribute to the dominant food system and which are not amenable to remedy by food-safety governance as it is widely understood. One cannot identify critical hazard points where risk is to be managed. These are food-system safety challenges. Because food-safety governance is so deeply political there needs to be greater attention to issues of governance rather than the more usual focus on the technologies of food-safety. Feminist political theorists have much to contribute to re-thinking food-safety governance in the context of diversity and the complexities of power. One could usefully start with the simple questions, “what food is to be kept-safe, for whom and who is the subject of food-safety governance in a post-Westphalian political economic order?” These questions can help unpack both the narrow parochialism and the misleading universalism of food-safety talk. This paper answers that neither the citizens of a particular state (or network of states) nor the falsely universalizing identity of ‘the consumer’ are adequate answers to these questions about ‘who’ and ‘what’. Answering these questions about who and what with respect to food-safety governance brings issues

of justice, ecology, public health and the legitimacy and nature of governance itself into the heart of food-safety discussions.

Keywords: food-safety governance; unsafe food-system; feminist theory; ecological public health

1. Background

Are food-safety programs for fruit and vegetable producers voluntary or mandatory, (asks the reporter for *Country Life* in BC farm magazine)? Both, was the consensus of opinion at the Pacific Agriculture Show food-safety session, Jan 25 [2013]. Although such food-safety programs are not yet mandatory in Canada, it is almost impossible to do business without one.

We (Overwaitea/Save-on Foods) demand food-safety programs (of our growers and suppliers). We also want full traceability on all the products we sell... If you don't want to do it, get into another business.

We (at South Alder Foods) are continually being audited by CanadaGAP, GlobalGAP, the Canadian Food Inspection Agency and others... We are even starting to get social compliance audits [1]¹.

Between 2007 and 2010, I studied the impact of new food-safety regulations on local small-scale farmers near where I live in British Columbia (BC), Canada [2]. What I learned about the potential consequences of current trends in food-safety governance and the harmonization of regional or global standards raised troubling questions about the future of vibrant small-scale farms and thriving local economies. While much recent research literature now stresses the need to recognize the connections between human and environmental health [3–6], my research showed me how easily efforts for greater local food security² and ecological and resilient agriculture can be undermined in the name of food-safety. The context for changes in BC's food-safety governance is important. These changes appeared to have had more to do with issues of trade, concerns about consumer confidence, and regulatory changes in other jurisdictions in response to problems such as BSE in cattle than with actual empirical problems of food-safety. In my study, I came to see that the historical shift in agri-food policies nationally from market intervention to liberalization and globalization has introduced not just new kinds of food-safety and economic challenges but it has moved governance in these arenas towards greater private agri-food governance and the adoption of regional and global standards by the nation state. As part of the enormous growth in international trade in food since the 1990s, there have been significant changes in supply chain management, production, transportation, consumer tastes, retailer-competition and so on. As global and regional governance arrangements have been liberalizing trade, non-trade measures such as quality and phytosanitary standards (public and private) have become an important and constantly changing arena for policies that in their consequences extend well beyond the invoked concern for food-safety [7–9]. Regional trade agreements and private agri-food

¹ All of these quotations were taken from a farmer news magazine report on a recent food safety conference in British Columbia, Canada on Jan. 25, 2013 [1].

² I use the term food security here because it is still the more widely used and understood term, but the better concept is probably food sovereignty.

governance have increased the complexity of the political and economic significance of food-safety regulation [10]. Contemporary food-safety regulations are about a lot more than food-safety and sometimes seem to have little to do with food-safety at all. The efforts by the local farmers that I studied to build local food economies and economic viability seemed so easily blown around by such regional and global food-safety regulatory forces totally beyond their and their communities' control.

My original research findings about the costs of the new food-safety governance for local food security in BC have been supported by more recent work [11–13]. There is also a growing body of research on the impact of food-safety standards on small-scale farmers globally. Those findings are often contradictory and the impacts of such standards are contingent on a range of factors and the nature of the governance [9,10,14,15]. Although there is considerable evidence about how new kinds of food-safety governance, especially private governance, can have harmful outcomes for many-small-scale farmers, there is also evidence to show that some small-scale farmers can benefit from inclusion in modernized or globalized markets [9,15,16]. For example, compliance with private standards can sometimes provide some farmers with access to more lucrative markets and also improve food-safety standards for (some) local consumers. Benefits, however, often come at the political cost of retail corporations or exporters having disproportionate power to determine who gets market access and whose livelihoods are enabled [17]. It would be a challenge if not impossible to provide some global tally of the overall outcome of food-safety governance generally and full cost-benefit analyses are seldom applied [8]. One could say that there are winners and losers, advantages and disadvantages attached to changes in food-safety governance [18]. However, if one is among the losers or if some very important things are lost or not attended to, then one cannot be so sanguine.

2. Shifting Focus from Farmers' Problems to Problems in the Food System

It was not until after the original research that I started to better appreciate the connections between what I had looked at primarily as small-scale farmers' problems and new kinds of public health issues such as those Lang [3] calls ecological public health. Diet related poor health has become a pressing public health problem, although there is some debate about the factors responsible for changing eating patterns towards what some call the industrial diet [19–22]. The paradoxical outcome of making an unhealthy industrial diet globally 'food-safe' seems almost perverse.

This paper started with two simple questions: how can a good idea—food-safety—have the disturbing outcomes found in the BC case? Also, was the BC experience just hard luck to BC small-scale farmers and the price paid for pursuing the public good? Clearly there is a need for good food-safety governance. Safe food is a public good. However, I was struck during the initial research by the difficulty of politically discussing the notion of public good or of contesting any new governance that invoked the justification of food-safety. Who can question food-safety? The rhetorical reference to protecting consumers is a powerful legitimating discourse that closed down the kind of democratic debate that could have accompanied those changes in governance.³ If food-safety governance is now a site for doing politics and economics under a different guise, perhaps is it time to

³ Joel Salatin well known farmer and food activist in the US stresses the need for greater democracy as he describes his life's work as a farmers to provide good ecologically sustainable food as being in a kind of war zone where food safety and other regulations make everything he wants to do illegal.

openly recognize this. If we did, a focus on governance would claim as much attention as the technologies of food-safety.

Would acknowledging that food-safety governance is deeply political in its outcomes help open questions about who is the public, and what is good, and for whom are things made safe, and for whom un-safe? Science is often referenced in international conflict over food-safety regulations as a way to settle disputes that avoids politics. Does this imply a belief that allowing the working of power to be made visible is a bad or dangerous thing? However, Latour points out that science itself is now subject to intense public contestation and can no longer be innocently appealed to in order to avoid or resolve political conflict [23,24]. This is not an incitement to abandon science and evidence. It means adding the requirements of (a) genuine public debate and (b) making the connections between power and knowledge and (c) recognizing social and ecological consequences for those differently situated into decision making processes that profoundly affect people's lives.⁴ In this future, the social sciences and civil society organizations (CSOs) would have important roles to play. If this had been done in the BC case I studied, the new regulations would not have been enacted, as later efforts to mitigate the problems from the legislation testify [11,12].

I will argue that discussions about new food-safety governance could usefully start with simple questions such as what food is to be kept safe? Safe for whom? At what costs and benefits? Who decides and on what grounds? These questions call for political answers.

The paper started from small-scale farmers' local problems with new food safety rules. It ends by advocating for different and higher standards in food-safety governance. Such standards would hold justice and fairness, healthy diets, thriving farms, vibrant local economies, ecological sustainability and climate change resilience central to new understanding of food-safety [16]. Many urban-based food policy councils in Canada and elsewhere now enshrine similar policy goals. Constance, in his 2008 keynote address to the Society for the Study of Agriculture and Human Values, offered four questions that could guide such standards and move us from a preoccupation with best practices to a focus on the agri-food system itself [25]. A broader framing for food-safety governance would not lessen the concern with contamination or adulteration but re-frame these concerns. In this reframing, agri-food governance would be released from the 20th century's intensive food regimes' policy compromise between food security, productivist agriculture, cheap food and environmental destruction, and be oriented around connections between food, health and ecology [4–6].

Food-safety governance is contested terrain. Despite the complexity and diversity in food-safety governance [9], it appears that the kinds of non-democratic universalizing and standardizing food-safety programs references in the opening quotations of this paper are becoming ubiquitous in the food system. Although the research literature often attests to the distinction between public and private agri-food governance, the deeper questions about food-safety governance cannot be contained by the distinction between public and private governance. Even public food-safety governance seldom meets the broader social and ecological concerns mentioned above that a broad concern with food, health and safety should address.

⁴ For Latour this would mean the total transformation of what it means to do politics (so as to include nonhumans) and what it means to do science (so as to include entangled and controversial and highly disputable matters of concern), rather than conjoining the worst of both science and politics, as is currently too often the case [23,24].

3. Moving from Food-Safety to Food-System Safety

Increasingly, food-safety governance, whether public or private, is designed and imposed from the perspective of large corporate food retailers and now constitutes a powerful dynamic helping re-organize the agri-food-system [17]. It typically embodies the assumption that those people who are to be kept 'food-safe' will be fed through the corporate, globalized, supermarket model. However, what if that is not true? What if climate change, social justice and new approaches to health, the needs of the poor and new kind of communities are better addressed by different kinds of food systems? What if we recognize that millions of people are not being fed well or fed at all by the globalized, corporate, agri-food retailer model, whatever the food-safety protocols? Would it still make sense to focus on developing the kinds of mono-cultures of food-safety governance that are referenced in the opening quotations at the start of this paper? Even the UN Food and Agriculture Organization (FAO) now recognizes the need for an alternative to globalized agri-food and is developing more territorial food system planning based on more localized approaches and policy tools that link human and environmental health more directly [22].

For some, a key attraction of globalizing food-safety standards is that this can limit efforts to use such standards as barriers to liberalizing the global food trade. Whether one sees the liberalization of food trade as a good thing or not may well depend on one's politics. The kind of globalizing food-safety governance talked about in the opening quotations to this paper makes some food safer for some people. It harms others in often invisible ways. It is a dynamic part of new kinds of food-system borne risks. These risks are system-based structural risks. Food-safety governance is now shaping the food-system not simply responding to safety problems in it. The food that is being made safe is being made safe in an un-safe system.

To support my argument I will point to evidence that indicates, directly or indirectly, food-safety governance is implicated in facilitating corporate concentration in the retail food market which in turn helps shape poor diets and extends an unhealthy 'industrial diet' globally [19], and is inscribed in limiting modernist understandings of nature in cultural understandings of food that are now barriers to food security in the future [26]. These changes in turn also empower globalized food supply chains that are often unjust; enabling them to discipline small-scale farmers and to re-organize food production in accordance with the interests of northern retail conglomerates and privileged consumers. As in the BC case, food-safety governance can create barriers to people's efforts to build local and regional sustainability and food security. I am not arguing that everything about food-safety governance or the global food system is bad. Of course it is not. However, just as conventional food-safety governance is intended to help eliminate unwanted harms in our food, so too can better food-safety governance help protect people from other kinds of yet often unrecognized harms. Injustice and the loss of food security for sections of the world's population and the rise of non-communicable diseases such as obesity and diabetes are not acceptable food-borne pathological outcomes of contemporary food governance, even if they are indirect or unintended outcomes.

By way of introduction to this paper I asked myself why farmers' magazines are so full of incitements to farmers and processors to get involved in what will soon become mandatory GlobalGap-like food-safety programs. Of course food-safety is very important but there were few such ads and articles 15–20 years ago. Then, as now, there were public health regulations and legal remedies

to address issues related to food-safety, adulteration and harm resulting from the consumption of contaminated food. Food offered for sale for human consumption was expected to be fit for human consumption. Why, then, do I read that “[Private agri-food regulatory] audits [are] essential to keep food-safety systems viable” in the headlines of my province’s major agriculture publication? Have the legal remedies for harm done to consumers from contaminated food been repealed? Are they unenforceable? Has the public lost trust in laws to protect them? The preventative rather than reactive approach of HACCP-like programs and audits become particularly attractive and useful in a globalizing food-system where trust must be established outside the framework of direct relationships.

Fuchs and Kalfagianni [27] explain that the rise to dominance of private agri-food governance depends on two key conditions: the power to govern and the authority to govern. The power to govern is a function of the structural power of agri-food corporations and grocery retailers in particular. Giant food retailers, whether Tesco in the UK or Wal-Mart in the US, use their oligarchic position in the marketplace, together with their ability to source products from around the globe, to establish themselves as the primary gatekeepers to consumer markets [28]. Authority to govern is a function of the perceived legitimacy of retail food corporations as political actors. The power of corporate food retailers to govern has been enabled and enhanced through trade liberalization policies. The perceived legitimacy and authority of retailer-driven governance has been achieved partly through the endless public spectacles of dangers from food. Such spectacles have helped erode public trust. Loss of trust in the public regulatory food-system has been both a consequence and also an enabler of a corporate-driven globalizing food system. In light of all the food scares, tragic deaths, a disturbing number of food recalls and the wider culture of food fears [29], as well as the challenges of a globalizing food system, surely anything to keep food safer is a good thing. A recent report from the US Centre for Disease Control (CDC) reported that between 1998 and 2008 roughly one in six Americans—48 million people—got sick from food poisoning [30]. That included 128,000 hospitalizations and 3,000 deaths.⁵ Illness from fruit and vegetables was the most common source of these illnesses (one in five) although more of the deaths came from eating poultry.⁶ Food provides a particularly important arena for the ideological legitimation of governance. Empirically over recent decades, food has been a site for the loss of trust in the public sphere. Food is a place of moral contestation because food is not only an economic object and basic necessity for humans, but is also “part of a physiological, psycho-sensorial, social and symbolic environment” ([31], p. 23). Thus, food governance and the future of democratic public governance are intertwined.

Both national governments and food corporations are very concerned about the loss of public confidence in the safety of food. Public debate and media attention has focused more often on the contaminated food itself, the failures of inspection processes and safeguards, and on individuals’ mistakes rather than on the food system. Hence, public inquiries are narrowly framed and policy is preoccupied with the regulatory system and food-safety standards rather than on food system governance.

⁵ Deaths from food borne sources seem to excite far greater concern than the higher death rates from traffic accidents or even chronic disease associated with poor diets.

⁶ The report goes on to point out that many of the vegetable-related illnesses come from norovirus, which is often spread by cooks and food handlers. So food-safety problems often have more to do with kitchens or restaurants and cultural loss of food knowledge.

4. Food-Safety in an Unsafe Food System

The call for papers for this special issue explained that the rise of large urban centers and the growth of globalized food trade have generated a new kind of food system, one never seen before. This, in turn, has led to increased international concern around food-safety. Scale of production, the multiple links in commodity chains and distance between field and fork do create new food-safety challenges, but the dominant food system itself is a pressing food-safety problem for human health. New food-safety governance will need to address this broader context. For some years now, critics such as Oliver de Schutter, the UN Special Rapporteur on the right to food, have been pointing out in report after report that the international agri-food system is clearly failing to fulfill the human right of all to an adequate and healthy diet [32–35].

In the next two sections I make the case that the food system itself should be seen as unsafe and should be the subject of differently conceived kinds of ‘food-safety’ governance. To do this I take up four themes. These are that the dominant food system (a) has encouraged a nutritional transition to unhealthy diets leading to chronic diseases and that it is also subject to unmanageable internal risks for contamination and diseases; (b) will inevitably be characterized by price volatility, especially as the agri-food sector is increasingly financialized and energy prices rise; (c) produces external safety risks by undermining local food security and contributing to agrarian and ecological crises; and (d) presents a barrier to the development of climate change resilient locally adaptive foodways or systems.

For much of the 20th century, thinking around public health and food was shaped by the perceived need to increase the supply of food [36,37] and the responsibility to protect the public from food borne illness and disease. One could argue that agri-food governance was productivist and protectionist. Tariffs, taxes, subsidies and quotas helped protect the security of national food supplies and food-safety governance helped protect the populous from food-borne illness and disease. Productivist agri-food policies encouraged the transition to large industrial-scale food production of cheap food. This in turn necessitated new public health food-safety programs and professional expertise capable of designing, implementing and monitoring such programs. Food-safety standards were therefore developed for productivist and industrial scale agriculture. Critics of the food system argue that outbreaks of food borne illness (such as the recent *Escherichia coli* (*E. coli*) O157:H7 contamination of Canadian beef from the XL slaughter plant) are best understood as proximate manifestations of more systemic causes. While the bacteria *E. coli* O157:H7 may come from cattle and get into the food chain through meat contamination because of inadequate food-safety practices, the growth of cattle feedlots, the speeding up of the production line and the drive for greater ‘efficiencies’ are part of the distal causes. Leibler *et al.* [38] explain that although not typically recognized as such, industrial food-animal production generates unique risk-filled ecosystems. These are ‘man-made’ environments that facilitate the evolution of zoonotic pathogens and their transmission to human populations. Contrary to the assumption that properly managed confined food-animal production reduces risks of emerging zoonotic diseases, it can increase the public-health risks unless there is new understanding of the bio-hazards of industrial or intensive animal confinement systems [38]. The massive concentration of the slaughter and meat processing industries and the global trade in meat explain why a local mistake on one production line turns into an international food-safety debacle. The mistake is globally distributed along with the global distribution of the meat. The extensive traceability protocols in food

are food-safety responses to new food-safety problems created by the global scope of the food system. Mistakes will also happen in a more localized food system but the risks and consequences would be far more contained. In light of recent reports about the emergence of new forms of avian flu one can reasonably question whether any new food-safety regime could possibly be adequate to manage the new kinds of food-safety risks generated by a food system that is global in scale. Perhaps the scale and nature of the risks are too great.

The emergence of the contemporary global industrial food system has meant a widespread shift to diets of a limited range of low-cost cereals or grains, highly processed foods lacking in nutrition and rich in sugar, salt, meat products and saturated fats with the attendant health problems of overweight, obesity, heart disease and diabetes. Thus, from a public health policy perspective, the policy of relatively cheap abundant food has not led to healthy diets even in privileged parts of the world. In recent reviews of food and public health Nestle [20], Stuckler and Nestle [39], and Winson [19] conclude that the industrial, now global, food-system is making people sick.

Claims that the food system is making people sick might be easier to incorporate into a journal article such as this one on food-safety governance if these researchers were pointing to food borne diseases in the food system such as *E. coli* 0157:H7, but they are not. They are pointing to *food-system borne disease*, rather than food borne disease. They identify economic features of the global food system (including corporate concentration, global supply chains, and profit maximization) and not microbes or pathogens as the most pressing source of public health food problems. They short-hand this food system as ‘Big Food’. They document how eating from within the global food system now correlates closely with rising levels of obesity and diabetes and conclude that the food industries are a main reason why the “nutrition transition” from traditional, simple diets to highly processed foods is accelerating. For Hawkes *et al.* the health problems stem less from agricultural policy or from what farm commodities are produced and more from how the food consuming industries substitute, transform, distribute and market these through the supply chain, for example, by converting vegetable oils into trans fats [21].

Stuckler and Nestle [39] also argue that one of the reasons for the failure of public regulatory responses to health problems in the food system is that such action requires tackling vested interests and that powerful Big Food companies have strong ties to and influence over national governments. Look at how long it took for legislation to deal with the relationship between cigarettes and cancer, they add. Social scientists speak of regulatory capture to refer to the ways in which private interests shape public food governance. The institutional relationships between private and public interests in the area of public health, however, are complex [40]. If we return to the example of the meat regulations in BC one can see that the broader political economic context of neoliberalization shapes food-safety governance even when that governance is public [2]. There are many ways to produce food that is safe to eat. However, there are not many ways of producing food that can be globally traded as safe. This food must meet particular kinds of global standards that embody specified ways of organizing food production into a tradable, food-safe commodity. Food-safety has to be accomplished and documented in standardized ways in order to create ‘trust at a distance’. Dorothy Smith’s [41] work on the conceptual practices of power shows how it is increasingly the case that only textual documentation is taken as trustworthy and manageable information. It is the documented, standardized processes, not simply that it is safe or good to eat, that has come to matter. In this context, policy

makers will unavoidably advocate for the adoption of the kinds of food-safety standards and protocols that facilitate international trade and the growth of an export market as they work towards the ideal of a seamless regional or global food market. This is an institutional feature of the world of food-safety regulation in the contemporary context and it has been greatly enabled by internet based communication technologies. This helps explain Post's [42] findings that powerful trade actors shape national food-safety standards in regulatory capitalism and weaker states adapt their regulations to match those of their major trading partners. In a period of neoliberalization such as we have experienced the economy appears to govern the political sphere. Many of the farmers in my study believed that the regulators were simply writing the food-safety rules the way the food corporations wanted. A more subtle understanding recognizes that the harmonization of public and private and global standards is now part of the institutional character of a neoliberalizing political-economy. Different local or national food-safety standards can be seen to act as barriers to trade and, thus, there has been considerable institutional effort exerted to remove such 'distortions'. Food must be made trade-safe and trade made 'food-safe'. The food trade is now a global trade. Food-governance is designed with trade in mind and the global trade is to be kept safe from being disrupted by losses of confidence in the safety of traded food. The charge that food is unsafe provides a legitimate reason for food producers or regulators in one region to close their national or regional trade borders to their competitors' products. This can have significant economic consequences. These were key lessons learned by politicians and policy makers from food safety problems such as BSE in cattle in the UK and Canada. Food scares turn the global food trade system into a very unstable and unsafe business. Working from within this perspective, food-safety inevitably becomes food-made-safe for global trading even if the particular food, like the BC local chicken and lamb, will not be globally traded. Farmers in BC knew their food was safe to eat. They also knew that this was not what drove changes in food-safety governance. It was keeping the food-trade safe and the export market stable that counted.

Far from simply being a technical problem of preventing food borne disease or contamination contemporary food-safety governance is a political project. Increasingly it is food-safety for a neoliberalizing and globalizing food market, a project over-determined by particular kinds of economic relationships rather than by the health or other kinds of social and ecological relationships that are embedded in food.

5. Food Insecurity, Food-Price Volatility, Agrarian Crises and Loss of Environmental Resilience

I am making the case that the dominant, globalizing food-system is unsafe and that discussions of food-safety governance should attend to this. This system produces vast quantities of relatively inexpensive food commodities (albeit not necessarily that cheap in the grocery store). If one discounted social, health and environmental externalities, it could be seen as very efficient. Many are convinced that it is the only way to 'feed a hungry' world. So how then can it be reasonably argued that the food system that produces so much food in a hungry world is unsafe and constitutes a global public health problem? In response to critics of the dominant system could one not answer that the problem of hunger will be ended by increased food production? Could one also not reply that the problems of poor nutrition and diet discussed above could be resolved by public education and taxes on soft drinks and junk food? Furthermore, could food-safety problems not be solved with better

food-safety programs? Surely this should satisfy critics. However, food-system based safety problems cannot be so easily fixed.

Hunger and malnourishment are caused primarily by lack of access to food due to inequality and poverty, not by an insufficient global food supply [43]. People typically go hungry when they cannot afford to buy food, not simply because it is not available in the market place. Van der Ploeg outlines how initially through food aid programs and later through the neoliberalization of trade in food and agricultural products, local production and markets were depressed in many regions of the world, investment in local agriculture neglected and local food security undermined, producing an agrarian crisis and increased inequalities [44–46]. As witnessed in 2008 and again more recently, if access to food depends on imports from the global market place then global food-price-volatility leads to dangerous food-system related health risks, particularly among the poor both in the North and Global South. The socio-economic organization of the dominant food system rather than primarily the technical challenges of producing enough food for the global population has become a major determinant of health.⁷ Food price volatility is now an endemic feature of the global food system and the financialization of agricultural commodity markets (and agricultural land) and moving agricultural land into agri-and bio-fuel production now constitute chronic food-safety/safe-food system problems.

Some of the strongest evidence about the lack of safety of the dominant food system comes from outside the area of food-safety or public health. If read for their implications for safe-food system governance, the agri-food regime theories and political economic analyses of Friedman [47], Friedman and Patel, [48], McMichael [49], McMichael and Schneider [50] or the work of Holt-Gimenez, Shattuck, Altieri, Herren, and Gliessman [51], Weis [52], Clapp [53] Winson [54] and others or the agro-ecological and food sovereignty work of Altieri [55], Koohafkan *et al.* [56] alert us to the risks of not having an ecologically resilient and socially just food system. Food-system generated risks exposed in these works do not show up on any food-safety test. They cannot be protected from by any HACCP food-safety protocols, are not visible through pathogen tests or microscopes and are not yet found on the dinner plates of the privileged, although they increasingly shape the food supply of many of the world's poorest people. The lines of analysis and inquiry offered by that kind of research direct one to look beyond programs, audits, or certification to find a better path for food-safety governance. It shows that agri-food governance, including food-safety, is profoundly political, ethical and ecological in its consequences.

Though, even if the food system is so unsafe, is it reasonable or fair to suggest the food-safety governance is centrally implicated in the food-system problems?

6. Food-Safety Governance as a Dynamic in an Unsafe-Food System?

The evidence is strong that food-safety and quality standards are now a dynamic power in the global value chain and are re-organizing the food system in ways that have significant

⁷ Contrary to media representations and popular belief, food price volatility is not caused primarily by supply problems but by a cluster of causes ranging from speculation associated with deregulation of the agricultural commodity markets, the financial collapse of 2008 and associated shifts in the investments of financial capital, shifts from food production into bio-fuels and exacerbated by localized environmental challenges, government mandated bio-fuel use, localized environmental events and the role international food trade played in undermining local food production.

consequences [17,28,57–59]. As captured by the opening quotes, *de jure* voluntary private food-safety standards are becoming *de facto* compulsory for almost all farmers and others in the agri-food sector. Like other agri-food standards, these are not simply technical specifications and politically neutral tools for making food safe, keeping quality high, protecting consumers or ensuring certain procedures are followed. Governance through standards allows social actors to ‘act at a distance’ [57,60], reorganizing and re-ordering relations and power in the food system across time and space [28,57–59,61]. Change in food-safety governance re-orders moral relations among the state, industry and the public [62]. Food has symbolic, cultural and physiological importance. Food-safety governance shapes moral and material economies and is a key site for establishing the legitimacy of governance, public and private [62,63]. Food governance can strengthen or weaken democracy.

Contemporary food-safety governance typically operates through standards. Standards provide tools of coordination to standardize production processes across geographically distant locations and in conjunction with new communication technologies introduce powerful tools of management for the re-centralization of control in fragmented supply chains. This is a more productivist [64] operation of power than in traditional colonial relations as now typically farmers and food suppliers voluntarily sign on for these programs. Global food-safety governance through such private food-safety governance as GlobalGAP allows corporate food retailers to source food globally with confidence that their production standards are met. GlobalGAP is an example of how extensive private food-safety governance has become. It was initially developed by a consortium of major European retailers, the Euro-Retailers Produce Working Group (EUREP), at first with a focus on food-safety standards around consumer food-safety and hygiene for fresh fruit and vegetables. It later came to include labour conditions, animal welfare, as well as farm level environmental issues. It now also can cover crops, livestock and so on. It has become the basis of many national programs. In 2010, there were 102,586 GlobalGAP certified growers in 108 countries, and 122 independent accredited certification bodies worldwide [63]. Depending on how one looks at it, one can see that these food-safety programs allow retailers to be sure food is safe and allow local producers and exporters to access lucrative global markets. Alternatively one can see this as a case where global markets or corporate retailers are disciplining and re-organizing local production to better serve the models of corporate food-retailing. Increasingly, there will be fewer markets existing outside such programs. The growing popularity of farmers’ markets may appear to buck that trend although there is some evidence that the same kinds of food-safety programs are being imposed even there, and some corporate retailers are arguing that this should be the case. The future is still open here.

From a food-safety perspective, the extension of food-safety standards seems like a good thing. Does it not mean that more and more food is food-safe? Standardization impose uniformities and equivalences among the diversity of people, places and things [12,13], and this has ecological, socio-political, cultural, economic and health outcomes. One can see standards as key enablers of a globalizing food system because, as Bain *et al.* [28] explain, they in themselves act as a kind of governance process. They order and discipline relationships across time and space, imposing uniformity on the heterogeneity that exists between places, cultures, languages, political systems, and markets [28,57–59,65,66]. It is not only national governments, international legal authorities or corporations who govern through food related standards. Non Governmental Organizations (NGOs) also use private agri-food governance to achieve social and environmental positive outcomes.

There is no easy fit between governance intentions and practical outcomes. Critics of fair trade and organic standards, for example, observe that regulatory processes may sometimes help reproduce the problems they were intended to solve [67–69]. The relationship between the new globalizing food system and new kinds of food-safety governance is dialectical. They both serve to co-produce each other. The challenges of creating trust and managing new kinds of risk in the globalizing food system leads to the creation of new ways to create trust at a distance, hence the proliferation of programs, certification processes, certifying and accrediting bodies and audits. However, as this article argues, emerging food-safety governance itself helps to produce a food system with new kinds of food un-safeness and food-safety problems. Before considering new food-safety governance, therefore, one needs to ask questions about how agri-food governance, including food-safety, actually works and what are the direct, indirect and unintended consequences. The government of BC probably did not consciously intend to put small-scale farmers out of the livestock business, for example, though many farmers believe they did. However, from my research I also learned that at least some policy makers were willing to accept the loss of small farmers as an acceptable cost. Persistent organized local resistance by agri-food activists later increased the political costs to this new legislation and some minor changes were made [11,12].

A key question is what kinds of food-safety governance policies and programs are likely to emerge in the context of current neo-liberal political and economic arrangements? In the context of neo-liberalization the answer appears to be private, retailer-driven food standards. Whose food is to be kept safe? The answer appears to be that food for more privileged consumers is privileged in new food-safety arrangements. What is the cost and to whom; who creates the standards, what values and cultural understandings do they embody or how is food-safety linked to broader goals of public health and food security? These are the unanswered socio-political questions surrounding food-safety governance that should be addressed, but seldom are. Agri-food governance however, is getting more academic attention.

7. The Dynamic Nature of Food-Safety Governance

Bain *et al.* [28] examine how private agri-food governance offers both business and NGOs emerging tools that are used strategically to achieve a range of objectives. These can include access to new markets, supply chain management, control and coordination of operations, protection of market share, quality and safety assurances for consumers, development of new markets around brands, niche markets and so on as well as public goods such as social justice and ecological goals. My own research on food-safety governance in BC highlighted how closely public regulators' responses to food-safety concerns are connected to concerns about supporting industry, furthering international trade and harmonizing and standardizing the regulatory environment.⁸ The close connection between food-safety governance and trade is well captured in the Canadian Food Inspection Agency's (CFIA) official dual mandate of ensuring food-safety and providing support for competitive domestic and international markets.

⁸ This is not conspiratorial. Bureaucrats will often use standards from elsewhere as models for new local standards because they are available and because having a new process already worked through elsewhere makes life easier and provides legitimacy to the changes.

Much of the literature on private food governance accepts that there is a significant distinction between public and private governance. This is an important analytical distinction. Empirically, however, in the context of neoliberalization, public governance may come to take on many of the characteristics of private agri-food governance, as in the case of new food-safety standards in BC. National governments and national producer organizations are increasingly harmonizing their public field-level food-safety standards with private standards such as GlobalGap. Guthman captures this regulatory affinity in her research on how even NGO-produced organic or ethical standards and labels intended to fix problems in the food system caused by neoliberalization paradoxically reproduce neoliberal governmentalities [67,70]. In the context of neoliberalization, there is a strong tendency for institutional responses, whether public or private, to fit within a governance paradigm of ecological modernization when dealing with problems emanating from the intersection of the social and the natural. Food-safety governance is an institutional response to one such intersection. Ecological modernization offers a paradigm of governance for problems emanating from risky nature. It is widely used in both public and private environmental governance [71]. Ecological modernization, whether public or private, lends itself to remedies that might be described as hyper-modern. By this I mean its faith that science, industry and the rational state can promote emancipation from problems in the natural world and that this can be accomplished by more efficient and cleaner technologies that create eco-efficiencies and thereby overcome nature-based and ecological barriers to economic growth. Ecological modernist responses to problems of nature (of which food-safety is one) typically entail investment by industry into clean and eco-efficient technologies, social and material technologies of hygiene and a design shift towards the prevention of problems. They are also characterized by a more decentralized state and more flexible and consensual styles of governance and a bigger role for the private sector [71].⁹ The affinities between ecological modernization, the governance technologies of neo-liberalism and food-safety programs like GlobalGAP and other HACCP programs are pronounced [63,70–72].¹⁰ This helps explain why even public safety-standards tend to mirror private ones.

It may seem like an oxymoron to argue that agri-food governance and food-safety standards in particular can have consequences that are un-safe. If one sees the loss of livelihood for the rural poor, decreasing agri-food bio-diversity, loss of resilience and restricting opportunities to develop climate-change adaptive alternatives to the dominant food system as health issues, the claim makes sense. However, is food-safety governance really complicit in reproducing such health risks? Sodano [73], for example, answers yes, albeit she recognizes this happens by default. She argues that food-safety policy persistently fails to address the profound threats to food-safety and food security coming from climate change. If policy makers fail with respect to locating issues of food-safety within the context of health, sustainability and food security, many agro-ecological small-scale farmers and

⁹ Ecological modernization is a reformist approach that attempts to deal with ecological problems caused by neoliberal capitalism rather than change the economic system. This makes it attractive to many as it seems to offer realistic opportunities for change within capitalism rather than radical programs to end capitalism. There is also a bigger role for the regulatory state than in the neoliberal approaches of *laissez faire* capitalism

¹⁰ Roy [27] cautions against the increasing use of neoliberalism as a kind of catch all concept and stresses the need to recognize the diverse and fluid political and spatio-temporalities referenced by the term.

food activists do not so fail. The small scale farmers I interviewed in BC were adamant that food-safety rules often undermined their livelihoods and efforts to build greater local food security and produce healthy food. Given the ideological power of the concept of food-safety, however, it is hard for such farmers or producers to effectively challenge the legitimacy of the array of new regulatory programs dedicated to food-safety, or the growing dominance of private agri-food governance in the areas of food-safety and quality [74]. Those who do so often invoke a response with the authority of technical and scientific expertise and may risk public humiliation for appearing to be willing to endanger human health. Bain, Ransom and Worosz [75] remind us how common it is for food-safety regulators to appeal to techno-science justifications for regulations in ways that silence dissent and mask controversy and vested interests, thereby mystifying the possibility of alternative ways of dealing with food-safety. The unquestioning adoption of the new kinds of agri-food-safety programs referenced in the opening quotations of this paper needs to be interrogated within a framework of ecological public health [3,76]. For Lang and Lang and Rayner [3,76], the concept of ecological public health expresses the profound interdependence of human health and the environment that should be embodied in public health policy. This, I argue below, will require an epistemic transformation, a greater democratization of food governance [63] and an extension of the political boundaries of responsibility for justice [77].

8. New Safety-Glasses: The Need for Epistemic Transformation

How then is one to think about food-safety governance in an unsafe food system? Food-safe/safe food governance needs to be able to deal both with threats to health from food contamination outbreaks such as *E. coli* 0157:H7 on spinach and also the broader risks of an unsafe food system. I am arguing that these latter broad ‘food-safety’ threats include poor nutrition, unhealthy diets, and risk for diabetes, malnourishment and obesity. They also include the agri-food system’s role in exacerbating inequality, agrarian crisis and environmental problems [32–35,78–80]. Viewed from this perspective, meeting this dual governance responsibility would require political-economic transformation of the dominant food system [16,20,33,46,48,76,78,81–83], not just better food-safety policy and legislation. Such new governance for a food-safe/safe food system would involve an epistemic transformation [16,29,49,60,79,84,85]. This epistemic transformation is needed not least because the benefits of the global food system are visible on supermarket shelves and most of the health, social justice and ecological costs are usually invisible, unless, for example CSO organizations such as Fair Trade’s networks campaign make them visible. Food-safety governance seems trapped by modernist traditions of trying to control nature, an approach which now create barriers to dealing with the new kinds of safety problems of late modernity [23,24,49,60,84–87]. It will need to be reframed in the context of our profound interdependence with the natural world and the inescapable requirement of confronting social injustice [88]. If the new collective health-determining fundamentals in the 21st century include climate change, water stress, energy costs, demographic change, the rise of chronic diet related disease, rising inequalities within and between nations, vulnerabilities to pandemics from industrialized and globalized production chains and so on, is it not time to ask whether the established policy-making and governance structures around food-safety, food, and health are able to address these new fundamentals?

Food fears and anxieties about food-safety are common media themes. Public and private regulatory responses may help reassure an anxious or outraged public and restore consumer confidence. The kinds of food system issues discussed above more often enter the food policy environment through the concept of food security and debates about sustainable development. The connections between food-safety and food security is complex and only became visible to me from my research in BC. I had assumed that food-safety governance would enhance food security, but I was wrong. The complex and sometimes contradictory connection often emerges from research that links agri-food governance and social justice [9,14–17,59,63]. One learns that achieving retailer driven food-safety standard certification, such as GlobalGAP, can be very costly and often inappropriate for many small farmers. Small-scale farmers or food-suppliers may be required to invest in new technologies, equipment, buildings, training or other capital costs thus forcing the cost of corporate food-safety assurance programs for northern consumers onto farmers up-stream, many of whom are poor¹¹. Exporters, certifiers and retailers often find it more convenient to work with larger producers. For example, 60% of the Kenyan small-scale growers initially involved in a food-safety certified export sector were later dropped by their export company or had withdrawn from compliance [63]. Similarly, Amekawa reported that in Uganda the number of small-scale farmers exporting fruit and vegetables declined from about 2150 in 2005 to about 1260 in 2006 [63]. Okello's work points to political remedies to some of the justice issues raised by food-safety standards in the globalizing food system [89]. Developing countries, he argues, have the potential to start addressing the problems by mobilizing small suppliers into groups that help small suppliers to meet the standards through joint investment in costly assets. This of course supposes the political and economic capacity and/or political will.

For organizations such as Via Campesina, the global network of peasant and small-scale farmers, fishers, indigenous people and landless rural dwellers, such remedies would require a shift towards food sovereignty [90]. Food sovereignty is a political project in opposition to the neo-liberalization of food and agriculture in which food-safety governance has come to play so dynamic a role [91]. Remedies such as Okello's that try to make food-safety governance fairer bring the political tensions hidden in food-safety governance to the fore. They beg the questions of which food is to be kept safe and for whom, no doubt because right now these questions cannot be put on the table. For Jarosz, avoiding such questions is now much easier in an era of neo-liberalization where individualized measures of food security have replaced more collective and national ones in governance and policy making [92]. Is it taken-for-granted that the relatively poor of the world will always service the food choices of the relatively privileged and that short run food-safety concerns trump long term food security concerns, whether that be in Kenya or California [92,93]? Borrowing from Coates' [16] analytic imagery, it seems that power and justice may be elephants in the room when it comes to epistemic blindness in developing food-safety governance for a safer food system for all [9,16,94–97].

In thinking about social justice and the impact of food-safety governance on small-scale farmers it is not enough to focus on issues of distributive justice and who gains and who loses economically.

¹¹ From my own experience locally this also happens as food-safety programs impose what many organic farmers see as unnecessary and un-ecological practices on their farm-level operations. GlobalGAP like programs do sometimes include environmental standards but not ones that are necessarily consistent with good local ecological practices. More often they are generalized if not globalized 'good practices' rather than ecologically and locally appropriate ones.

Feminist political theorist Nancy Fraser explains that issues of justice and governance involved in the global re-organization of people's lives go beyond distributive justice to include political participation and what Fraser calls representation [77] or others may refer to as identity or culture. The work of Amekawa [63], Friedberg [94] and others [95–97] show the kinds of profound political, economic and cultural disconnections between enhancing food-safety assurance for northern markets and declining social inclusion for many in the Global South. Amekawa argues for the need for greater democracy in food-safety governance while Fraser struggles to theorize governance and justice in a context where nation state borders have lost much of their relevance: a post-Westphalian political economic order.

9. Barriers to Seeing Food-Safety Differently

The food-safety policy makers in BC's meat regulations did not see themselves as simply acting in the service of agri-food corporations or neoliberalization. They spoke in terms of protecting the Provincial and Canadian meat industry and the consumer. The concept of epistemic blindness helps us understand how well intentioned professionals and policy makers may be unable to tackle the new kinds of food-safety/safe food issues generated by the globalizing food system. Carolan's concept of epistemic blindness [79,80] helps one to appreciate the paradox that food-safety governance cannot keep food safe. It explains why the power of corporations to shape food governance isn't the only reason why the State cannot or does not act. On supermarket shelves is found plentiful, relatively cheap food, uniform and blemish free produce, an apparent abundance of choice, out-of-season produce and extensive public and private food-safety programs designed to ensure the food is free of pathogens or contaminants. The availability and convenience of this kind of food, as Winson reminds us, co-emerged with the time pressured re-organization of people's lives that came with industrialization and urbanization, and more recently, women's paid employment [19].

There is now a veritable cornucopia of processed and what is called convenience food that conceals the fact that so much of our food depends on a small number of inputs, most particularly corn, wheat, soya, sugar and fats. The public-health-related costs, however, are largely invisible. The relationship between food and chronic disease or poor health is invisible. The disappearance of small and medium farms, the consolidation of corporate power in the food system and food price volatility are all invisible costs that have health related consequences. The shift from food production into agri-fuel production is invisible as a food-safety or health issue. Rural poverty and exploitative farm labor, loss of biodiversity and ground water depletion or soil erosion are also all invisible as food-safety issues.¹² Yet all of these make the food system unsafe. These costs could hypothetically be measured in the currencies of social justice, public health, environmental sustainability, animal welfare, community decline and gendered and racialized inequalities. However, there are no such currencies. The closest we come are various kinds of fair trade certification, organic standards or various labels and niche brands. How such invisible costs are framed (or not) within food governance is a critical question because without ethical, agro-ecological and other broader points of reference, existing economic and power interests will prevail [98,99].

¹² This is not the full story of course. A wide number of documentaries, websites and other forms of communication are now being used to make the costs of the dominant food system visible. How successful these are and the implications for the future of food is yet to be decided.

These issues are more than food-safety/safe food system blind spots. Such issues, according to Hospes, are at the heart of agri-food governance policy deadlocks [100]. The BC example showed how easily debate about agri-food governance was closed down in the name of food-safety. For some, like Lang, the concept of ecological public health can help avoid such deadlocks and better capture connections between food, justice, environment and health [3–5,101–103]. Others theorists, however, suggest that some of the most intractable safety related problems and risks of late modernity, whether of the environment and climate change, food borne diseases, health problems, new kinds of bio-insecurities and so on are in part products of modernity itself [26,86], or capitalism in late modernity [104]. They speak of the dystopian underside of modernity and construct an image of modernity as a kind of victim of its own success. From this perspective one could argue that the institutions of modernity can no longer deal with the problems produced by the success of modernity. That is to say that the technical and institutional arrangements of modernity which have privileged science and technological solutions to problems of food production, such as productivist agriculture, chemical fertilizers and pesticides, globalized food-handling and new food-safety technologies are now inadequate to address new kinds of risks and safety problems. This line of argument also suggests that new epistemologies, new paradigms, and ontological shifts in understanding of nature are needed [24,60]. If 19th and 20th century food-safety worked within a bio-security model in which protocols and practices of protection from nature, the question now becomes whether this can be integrated into emerging 21st century thinking about the interdependence of environment, food, health and justice in the future of human life on earth. The work of Latour and Douglas help us see that modern food-safety has been shaped by cultural imaginaries of struggles with dangerous or contaminating nature versus the socially clean [23,24,105]. Whatever the specific historical usefulness of such tropes as pure food and dirty microbes in advancing historical projects such as the pasteurization of milk, it is risky to build the governance of future food systems on such cultural dichotomies. Twenty-first century food policy, including food-safety governance, as Lang and others emphasize, will have to address a new set of fundamentals [3,4,102] in which the food system will be held to new policy goals and standards of safety and goodness.

10. Conclusions

The food system is giving rise to new concerns about food-safety. This paper argues that there need to be new approaches to food-safety governance that include a concern with the safety of the food system itself, and not just the food. The questions of what food is to be kept safe, for whom, how and who decides bring issues of justice, health, ecology, and politics to the fore. From the perspective of many of those working in alternative agri-food networks, much of contemporary food-safety governance is protecting the status quo and risking the future.

Understandably, policy makers may prefer to appeal to science rather than politics to settle debates and disputes about food-safety. In the 21st century, however, science itself is open to political contestation, and even if it were not, contemporary debates about what constitutes a safe food system cannot be settled by science. Even the simple questions of what food and for whom quickly confront one with the politics of food. Food-safety issues may appear as technical issues that arise from the globalized and industrialized sourcing of food. Though, even this needs to be historicized within the

cultural politics of food as well as the political economy of agri-food. The increased importance of non-locally sourced fresh fruit and vegetables on supermarket shelves, for example, is not simply the expression of new health consciousness among consumers and of retailers' concern to meet those health needs. Are out-of-season air-shipped iceberg lettuce and tomatoes really healthier than in-season, locally sourced cabbage or kale? The cultural politics of new ideas of healthful eating, as the work of Guthman and Depuis [106] and also of Johnstone and Baumann [107] makes clear, embody class dynamics, status distinctions and more recently cultural shifts that are connected to neoliberalism as a political, social and economic project that embodies new forms of governmentalities. What and how people eat has always been shaped by social status. Today, the body, and the culturally proper management of and care for the body, have become a central project of the middle classes, they explain. Certainly cultural turns to globally-sourced food with complex supply chains raise new food-safety and bio-security challenges. Changing patterns of eating, whether of fresh, exotic produce, more meat or Coke and Pepsi embody issues about capitalism and class, distributive justice and climate change, animal welfare and gendered inequalities and so on. Food is political. Cultural shifts in diets among particular segments of the population are not simply health determined but are deeply connected to transformations in the relations of power and status hierarchies of late modernity and globalizing capitalism. I conclude that because food-safety governance is so deeply political the project would be better served by greater attention to issues of governance rather than the more usual focus on the technologies of food-safety.

The centering of governance begs the question of who is the subject of food-safety governance. In a post-Westphalian political order [108] and in the context of neoliberalization, the concept of public food-safety governance embodying the 'public good' or acting in the service of public health is ambiguous. Who is the public in such public governance? The public good can no longer be identified with the citizens of a state when food systems span the globe. Private agri-food governance typically invokes the universalizing image of 'the consumer' as the subject to be protected.

I have argued that new models of food-safety governance may help to make food safe for some people but are blind if not indifferent to the ways in which the food system itself is an unsafe system for much of the world's population. Conventional approaches to food-safety governance are framed within what feminist political theorist Iris Marion Young [109,110] calls a liability model of responsibility that has limited usefulness for addressing institutional, structural or systemic causes of harm such as those to health resulting from the dominant food system. The most common model of assigning responsibility in modern societies, Young explains, derives from legal reasoning about guilt or fault for a harm inflicted. That is, under the fault model, responsibility is attributed to an agent (this could include a corporate entity) who can be shown to be causally connected to the harm and thus deemed responsible, allowing for mitigating circumstances such as coercion. Under a concept of strict liability even if there were no intention to harm, responsibility and liability can be assigned. Hazard analysis and critical control points (HACCP) derived programs with their focus on documentable process and managing risks still have this kind of liability driven, individualistic framing. In the case of food-system generated harms such as those discussed in this paper, however, the connections between actors and harms are indirect and usually mediated through market and institutional relations and complex structural processes. There are few institutional ways of addressing those food system harms other than symbolic but largely ineffectual gestures such as limiting the size of soft drinks in

restaurants or the fat in burgers or labels advocating consumers to act through their purchasing dollar. How can the harm done to small-scale BC farmers or local food security by globalized HACCP-like food-safety regulations be institutionally addressed? It cannot. The institutional arena was global and the harm done was local and insignificant from a globalizing perspective. It was just the usual kind of fall-out or externality from doing global business in the business as usual, institutionalized way. As such, the usual thinking about responsibility and liability is not the most useful way of thinking about remedies. Instead of blame and liability, Young offers the concept of political responsibility as a way of thinking about responsibility for outcomes that are a result of structural process involving many people acting in normal and accepted activities. This allows one to recognize that harm can come from business as usual rather than someone breaking the rules or being negligent. This generates new kinds of responsibility for structural processes that connect us. Young's approach is particularly useful for thinking about how to respond to system-generated harms that avoids the limitations of the liability model and focuses instead on creating institutional alternatives. Discussions of food-safety governance, I have argued, needs to be re-situated more broadly within a framing of a safe food system(s). Following Young's analysis, we need institutional alternatives and alternative institutions.

The question of what food is to be kept safe and for whom can help unpack both the narrow parochialism and the misleading universalism of food-safety talk. These questions bring issues of justice, global public health and the nature of governance into the heart of food-safety discussions. In what social justice theorists Nancy Fraser calls a post-Westphalian political-economic order one can no longer politically or ethically implicitly assume that only citizens of a territorial state count as subjects of food-safety governance nor can one invoke the false universalism of 'the consumer'. Far from substituting a single global "who" for the Westphalian "who", Fraser explains governance principles should avoid homogenizing a 'one-size-fits-all' framing of governance. In the contemporary world, she continues, people are subject to a plurality of different governance structures, some local, some national, some regional, and some global. There needs to be, therefore, a variety of different frames for different issues that are able to mark out a plurality of "who's" for different purposes ([77], p. 294). What would new food-safety governance look like? Feminist theorists have particularly valuable contribution to make in thinking of governance in the context of diversity and the complexities of power [108,111,112]. Their work would encourage us to look beyond the limitations of the liability model and towards creating diverse institutional arrangements for safe (and ecological) food systems that are responsive to the complexities of power, difference, capacities and context rather than a globalized food-safe system that privileges the few. We are also challenged to recognize that governance in a post-Westphalian order can no longer legitimate itself by reference to the inhabitants of a particular state or the falsely universalizing referent of 'the consumer'. Thinking about good-safety governance can usefully start with the deceptively simple questions, "what food is to be kept-safe and for whom?"

How is social change to be made? CSOs sometimes take up problems of food-safety. Containing the politics of food within the discourses of food-safety, however, can depoliticize the issues, even when raised by CSOs, health or consumer advocacy groups. Their discourses are too vulnerable to being absorbed into the neoliberalizing discourses of individual health and responsible consumption and technico-economic expertise and fixes [113] and being reduced to matters of choice. Vedwan's work on responses to pesticide contamination in Coca Cola in India cautions that one should not easily

accept a belief in the democratizing or the transformative potential of consumer politics by itself [114]. Consumer activism can easily lead to elitist lifestyle politics, for example. However, she concludes that the multiple disjunctures that constitute the experience of consumerism, such as finding that the food one is consuming or giving to one's children is contaminated, can generate a charge potent enough for a way forward. To realize its socially progressive potential, she concluded, consumer activism has to be grounded in a reworked state–society relationship. This moves us beyond seeing justice and ecology as matters of individual consumer choice to be voted on with one's dollar. The neo-liberal state itself would need to be transformed, which once again puts governance central to issues of food.

Making social justice, ecology and public health central to the conceptualization of food-safety opens up spaces for political alliances between urban CSOs and consumer groups, North and South, and peasants', indigenous and tribal peoples' and small-scale farmers' social movements such as Via Campesina, agro-ecological and fisher networks and other more rural based and natural resource dependent networks. Such alliances cannot be easily absorbed into neoliberalizing reformism will not be easily forged but, according to Holt-Gimenez and Shattuck's review of food movements, are critical [113]. Because of its role in building sociability and its moral meanings and symbolic capacities to build inclusion food is perhaps one of the most fruitful sites for re-making forms of governance, most particularly state-like bodies built on public forms of authority.

Like food itself, the future politics of food will be even more boundary and border transgressive. Conceptually and politically transgressing the power inflected cultural boundaries between the social and the natural is one of the most important sites for such transgressions, and in this nature itself has become a key political actor. This, I would argue, cannot be accomplished within the social relations of consumption but is dependent on political alliances with those, North and South, embedded in transformed and agro-ecological relations of food production.

Conflicts of Interest

The author declares no conflict of interest.

References and Notes

1. David Smith. "Audits essential to keep food-safety system viable." *Country Life in BC*, 21 March 2013, vol. 99, no. 3, pp. 21–23.
2. Martha McMahon. "Standard fare or fairer standards: Feminist reflections on agri-food governance." *Agriculture and Human Values* 28, no. 3 (2011): 401–12.
3. Tim Lang. "Reshaping the food system for ecological public health." *Journal of Hunger & Environmental Nutrition* 4, no. 3–4 (2009): 315–35.
4. Lang Tim, David Barling, and Martin Caraher. *Food Policy: Integrating Health, Environment and Society*. Oxford: Oxford University press, 2009.
5. Aleck Ostry, Christiana Miewald, and Rachelle Beveridge. "Climate Change and Food Security in British Columbia." Victoria: Pacific Institute for Climate Solutions, 2011.
6. Terry Marsden. "Mobilizing the regional eco-economy: Evolving webs of agri-food and rural development in the UK." *Cambridge Journal of Regions, Economy and Society* 3, no. 2 (2010): 225–44.

7. Chad Lavin. "The year of eating politically." *Theory & Event* 12, no. 2 (2009): 10.1353/tae.0.0074.
8. Mario Mazzocchi, Maddalena Ragona, and Agostina Zanolì. "A fuzzy multi-criteria approach for the ex-ante impact assessment of food safety policies." *Food Policy* 38 (2013): 177–89.
9. Spencer Henson, and John Humphrey. "Understanding the complexities of private standards in global agri-food chains as they impact developing countries." *The Journal of Development Studies* 46, no. 9 (2010): 1628–46.
10. Maria Angela Perito, and Abdelhakim Hammoudi. "Food safety standards and their impact on the small farms of developed countries." *Pagri/Iap* (2013): 7–19. http://www.informatoreagrario.eu/ita/riviste/Pagri/12Pa04/Pagri_04_2012.pdf#page=6.
11. Christiana Miewald, Aleck Ostry, and Sally Hodgson. "Food safety at the small scale: The case of meat inspection regulations in British Columbia's rural and remote communities." *Journal of Rural Studies* 32 (2013): 93–102.
12. Christiana Miewald, Sally Hodgson, and Aleck Ostry. "Unintended consequences of food safety regulation on community food security." *Local Environments*, 2013, forthcoming.
13. Barbara Seed. "Food security in public health and other government programs in British Columbia, Canada: A policy analysis." Ph.D. Dissertation, City University London, London, UK, 2011.
14. Julius J. Okello, and Scott M. Swinton. "Compliance with international food-safety standards in Kenya's green bean industry: Comparison of a small-and a large-scale farm producing for export." *Applied Economic Perspectives and Policy* 29, no. 2 (2007): 269–85.
15. Caspar van Vark, John Humphrey, Raghavan Sampathkumar, Linda Nicolaides, Pamela Robinson, Heather Ducharme, and Jeanette Longfield. "What do food traceability crises in the North mean for people working in food chains in the global South?" *Food Chain* 3, no. 1 (2013): 5–17.
16. Lea Coates. "How do you eat the elephant in the room? Agri-food Sustainability and King Island." In *Food Security in Australia: Challenges and Prospects for the Future*. Edited by Quentin Farmer-Bowers, Vaughan Higgins and Joanne Millar. New York: Springer US, 2013, pp. 297–309.
17. Jennifer A. Clapp, and Doris A. Fuchs, eds. *Corporate Power in Global Agrifood Governance*. Cambridge: The MIT Press, 2009.
18. Thomas Reardon, Christopher B. Barrett, Julio A. Berdegue, and Johan F.M. Swinnen. "Agrifood industry transformation and small farmers in developing countries." *World Development* 37, no. 11 (2009): 1717–27.
19. Anthony Winson. *The Industrial Diet: The Degradation of Food and the Struggle for Healthy Eating*. Vancouver: UBC Press, 2013.
20. Marion Nestle. *Food Politics: How the Food Industry Influences Nutrition and Health*. Berkeley: University of California Pr, 2013, vol. 3.
21. Corinna Hawkes, Sharon Friel, Tim Lobstein, and Tim Lang. "Linking agricultural policies with obesity and noncommunicable diseases: A new perspective for a globalising world." *Food Policy* 37, no. 3 (2012): 343–53.

22. FAO. "The State of Food and Agriculture 2013." <http://www.fao.org/docrep/018/i3300e/i3300e02.pdf>.
23. Bruno Latour. "Politics of nature: East and West perspectives." *Ethics & Global Politics* 4, no. 1 (2011): 71–80.
24. Bruno Latour. "An attempt at a 'Compositionist Manifesto'." *New Literary History* 41, no. 3 (2010): 471–90.
25. The 4 questions were the agrarian, environmental, food, and emancipator questions. See Jeffrey L. Jordan, and Douglas H. Constance. "Sustainable agriculture and the social sciences: Getting beyond best management practices and into food systems." *Southern Rural Sociology* 23, no. 1 (2008): 1–22.
26. Phil Hanlon, Sandra Carlisle, Margaret Hannah, Andrew Lyon, and David Reilly. "A perspective on the future public health: An integrative and ecological framework." *Perspectives in Public Health* 132, no. 6 (2012): 313–19.
27. Doris Fuchs, and Agni Kalfagianni. "The causes and consequences of private food governance." *Business and Politics* 12, no. 3 (2010): 1–39.
28. Carmen Bain, Elizabeth Ransom, and Vaughan Higgins. "Private Agri-food Standards: Contestation, Hybridity and the Politics of Standards." *International Journal of Sociology of Agriculture and Food* 20, no. 1 (2013): 1–10.
29. Alison Blay-Palmer. *Food Fears: From Industrial to Sustainable Food Systems*. Aldershot and Burlington: Ashgate Publishing, Ltd., 2008.
30. Mike Stobbe. "Study finds leafy greens top source of food poisoning; more deaths tied to poultry." Available online: <http://globalnews.ca/news/385667/study-finds-leafy-green-vegetables-top-source-of-food-poisoning-more-deaths-tied-to-poultry/> (accessed on 28 April 2013).
31. Jacinthe Bessière. "Local development and heritage: Traditional food and cuisine as tourist attractions in rural areas." *Sociologia ruralis* 38, no. 1 (1998): 21–34.
32. Olivier de Schutter. "Report submitted by the Special Rapporteur on the right to food." UN Report to Human Rights Council. United Nations Human Rights Commission, New York, 2010. <http://www2.ohchr.org/english/issues/food/docs/A-HRC-16-49.pdf>.
33. Oliver de Schutter. "The Right to Food and the Political Economy of Hunger." Paper presented at 26th McDougall Memorial Lecture Opening the 36th Session of the FAO Conference, Rome, Italy, 18 November 2009. <http://www2.ohchr.org/english/issues/food/docs/McDougall18November2009.pdf>.
34. Oliver de Schutter. "Governing World Food Security: A New Role for the Committee on World Food Security." *Right to Food Quarterly* 4, no. 1 (2009): 2–3.
35. Oliver de Schutter. "Building resilience: A human rights framework for world food and nutrition security" Report of the Special Rapporteur on the right to food. Human Rights Council Ninth Session, A/HRC/9/23. United Nations, Geneva, 2008. <http://www2.ohchr.org/english/issues/food/docs/A.HRC.9.23.pdf>.
36. Reidar Almås, and Hugh Campbell. *Rethinking Agricultural Policy Regimes: Food Security, Climate Change and the Future Resilience of Global Agriculture*. Bradford, UK: Emerald Group Publishing, 2012, vol. 18.

37. Nick Evans, Carol Morris, and Michael Winter. "Conceptualizing agriculture: A critique of post-productivism as the new orthodoxy." *Progress in Human Geography* 26, no. 3 (2002): 313–32.
38. Jessica H. Leibler, Joachim Otte, David Roland-Holst, Dirk U. Pfeiffer, Ricardo Soares Magalhaes, Jonathan Rushton, Jay P. Graham, and Ellen K. Silbergeld. "Industrial food animal production and global health risks: Exploring the ecosystems and economics of avian influenza." *EcoHealth* 6, no. 1 (2009): 58–70.
39. David Stuckler, and Marion Nestle. "Big food, food systems, and global health." *PLoS Medicine* 9, no. 6 (2012): e1001242.
40. David Stuckler, Sanjay Basu, and Martin McKee. "Global health philanthropy and institutional relationships: How should conflicts of interest be addressed?" *PLoS Medicine* 8, no. 4 (2011): e1001020.
41. Dorothy E. Smith. "Texts and the ontology of organizations and institutions." *Studies in Cultures, Organizations and Societies* 7, no. 2 (2001): 159–98.
42. Diahanna L. Post. "Standards and regulatory capitalism: The diffusion of food-safety standards in developing countries." *The ANNALS of the American Academy of Political and Social Science* 598, no. 1 (2005): 168–83.
43. Amartya Sen. *Poverty and Famine*. Oxford: Clarendon Press, 1981.
44. Jan Douwe Van der Ploeg. "Poverty alleviation and smallholder agriculture: The rural poverty report 2011." *Development and Change* 43, no. 1 (2012): 439–48.
45. Jan Douwe Van der Ploeg. "The food crisis, industrialized farming and the imperial regime." *Journal of Agrarian Change* 10, no. 1 (2010): 98–106.
46. Jan Douwe Van der Ploeg. *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. London: Earthscan, 2008.
47. Harriet Friedmann. "Feeding the empire: The pathologies of globalized agriculture." *Socialist Register* 41, no. 41 (2005): 124–43.
48. Raj Patel. *Stuffed and Starved: The Hidden Battle for the World's Food System*. Toronto: Harper Collins, 2007.
49. Philip McMichael. "Revaluing low carbon cultures: Learning to live with the earth." *Development* 54, no. 2 (2011): 169–71.
50. Philip McMichael, and Mindi Schneider. "Food security politics and the Millennium Development Goals." *Third World Quarterly* 32, no. 1 (2011): 119–39.
51. Eric Holt-Giménez, and Miguel A. Altieri. "Agroecology, food sovereignty, and the new green revolution." *Agroecology and Sustainable Food Systems* 37, no. 1 (2013): 90–102.
52. Tony Weis. "Breadbasket contradictions: The unstable bounty of industrial agriculture in the United States and Canada." In *Food Security, Nutrition and Sustainability*. Edited by Geoffrey Lawrence, Kristen Lyons and Tabatha Wallington. London: EarthScan, 2010, pp. 27–40.
53. Jennifer Clapp. *Hunger in the Balance: The New Politics of International Food Aid*. Ithaca: Cornell University Press, 2012.
54. Anthony Winson. "The demand for healthy eating: Supporting a transformative food "movement"." *Rural Sociology* 75, no. 4 (2010): 584–600.

55. Miguel A. Altieri. "Small farms as a planetary ecological asset: Five key reasons why we should support the revitalisation of small farms in the global south." *Third World Network (TWN)*, 9 May 2008.
56. Parviz Koohafkan, Miguel A. Altieri, and Eric Holt Gimenez. "Green agriculture: Foundations for biodiverse, resilient and productive agricultural systems." *International Journal of Agricultural Sustainability* 10, no. 1 (2012): 61–75.
57. Lawrence Busch. "The moral economy of grades and standards." *Journal of Rural Studies* 16, no. 3 (2000): 273–83.
58. Lawrence Busch. "Standards, law and governance." *Journal of Rural Social Sciences* 25, no. 3 (2010): 56–78.
59. Vaughan Higgins, and Geoffrey Lawrence, eds. *Agricultural Governance: Globalization and the New Politics of Regulation*. New York: Routledge, 2005, vol. 10.
60. Bruno Latour. *We have Never been Modern*. Cambridge: Harvard University Press, 2012.
61. Stephen S. Davey, and Carol Richards. "Supermarkets and private standards: Unintended consequences of the audit ritual." *Agriculture and Human Values* 30 (2013): 271–81.
62. Keiko Tanaka. "Redefining the moral responsibilities for food-safety: The case of red meat in New Zealand." *Rural Sociology* 70, no. 4 (2005): 470–90.
63. Yuichiro Amekawa. "Reconciling safety and fairness in global agri-food standardization." *Sociology* 3, no. 1 (2013): 32–38.
64. Michel Foucault. "Disciplinary power and subjection." *Power* 1981 (1986): 229–42.
65. Vaughan Higgins, and Wendy Lerner. "Standards and standardization as a social scientific problem." *Calculating the social: standards and the reconfiguration of governing*. Edited by Higgins and Lerner. Basingstoke: Palgrave Macmillan 1 (2010): 17.
66. Stefano Ponte, Peter Gibbon, and Jakob Vestergaard, eds. *Governing through Standards: Origins, Drivers and Limitations*. Basingstoke: Palgrave Macmillan, 2011.
67. Julie Guthman. *Agrarian Dreams: The Paradox of Organic Farming in California*. Berkeley: University of California Press, 2004.
68. Mark Moberg. *Slipping Away: Banana Politics and Fair Trade in the Eastern Caribbean*. New York: Berghahn Books, 2008.
69. Laura T. Raynolds. "Mainstreaming fair trade coffee: From partnership to traceability." *World Development* 37, no. 6 (2009): 1083–93.
70. Julie Guthman. "The Polanyian Way? Voluntary food labels as neoliberal governance." *Antipode* 39, no. 3 (2007): 465–83.
71. Arthur P.J. Mol, and David A. Sonnenfeld. "Ecological modernisation around the world: An introduction." *Environmental Politics* 9, no.1 (2000): 3–16.
72. Ananya Roy. "Book review symposium." *Progress in Human Geography* 36, no. 2 (2012): 273–81.
73. Valeria Sodano. "Food policy and climate change: Uncovering the missing links." In *Climate Change and Sustainable Development*. Wageningen: Wageningen Academic Publishers, 2012, pp. 253–58.
74. Ann Slater. "Safe food- from the viewpoint of farmers." *Union Farmer Quarterly* 18, no. 1 (2012): 16.

75. Carmen Bain, Elizabeth Ransom, and Michelle Worosz. "Constructing credibility: Using technoscience to legitimate strategies in agrifood governance." *Journal of Rural Social Sciences* 25, no. 3 (2010): 160–92.
76. Tim Lang. "Ecological public health: The 21st century's big idea? An essay by Tim Lang and Geof Rayner." *BMJ: British Medical Journal* 345 (2012): e5466.
77. Nancy Fraser. *Scales of Justice: Reimagining Political Space in a Globalizing World*. New York: Columbia University Press, 2009.
78. Tony Weis. "The meat of the global food crisis." *The Journal of Peasant Studies* 40, no. 1 (2013): 65–85.
79. Michael Carolan. *The Real Cost of Cheap Food*. Abingdon: Earthscan, 2011.
80. Michael Carolan. *The Sociology of Food and Agriculture*. New York: Routledge, 2012.
81. Ellen Desjardins, Rod MacRae, and Theresa Schumilas. "Linking future population food requirements for health with local production in Waterloo Region, Canada." *Agriculture and Human Values* 27, no. 2 (2010): 129–40.
82. Philip McMichael. "Food system sustainability: Questions of environmental governance in the new world (dis) order." *Global Environmental Change* 21, no. 3 (2011): 804–12.
83. Jennifer Clapp. *Hunger in the Balance: The New Politics of International Food Aid*. Ithaca: Cornell University Press, 2012.
84. Alan Smart, and Josephine Smart. "(Im) mobilizing technology: Slow science, food-safety, and borders." *Identities* 18, no. 6 (2011): 529–50.
85. Diana Stuart. "Science, standards and power: New food-safety governance in California." *Journal of Rural Social Sciences* 25, no. 3 (2010): 111–40.
86. Ulrich Beck. *Risk Society: Towards a New Modernity*. Twin Oaks: Sage Publications Limited, 1992.
87. Michael S. Carolan. "Do you see what I see? Examining the epistemic barriers to sustainable agriculture." *Rural Sociology* 71, no. 2 (2006): 232–60.
88. Eric Holt-Giménez, Annie Shattuck, Miguel Altieri, Hans Herren, and Steve Gliessman. "We already grow enough food for 10 billion people... and still can't end hunger." *Journal of Sustainable Agriculture* 36, no. 6 (2012): 595–98.
89. Julius Juma Okello. "The role of collective action in overcoming the challenges of european food safety standards: The case of kenya's french bean and nile perch industries." *Agricultural Science Research Journal* 1, no. 1 (2011): 30–37.
90. "La Via Campesina Policy Documents." Available online: <http://viacampesina.org/downloads/pdf/policydocuments/POLICYDOCUMENTS-EN-FINAL.pdf> (accessed on 15 June 2013).
91. Peter André, Jeffrey Ayres, Michael Bosia, and Marie-Josée Massicotte, eds. *Globalization and Food Sovereignty*. Toronto: University of Toronto Press, 2014, forthcoming.
92. Lucy Jarosz. "Defining world hunger: Scale and neoliberal ideology in international food security policy discourse." *Food, Culture and Society: An International Journal of Multidisciplinary Research* 14, no. 1 (2011): 117–39.
93. Lucy Jarosz. "A Review of "Cultivating Food Justice: Race, Class, and Sustainability." *Annals of the Association of American Geographers* 102, no. 6 (2012): 1529–30.

94. Susanne Freidberg. *French Beans and Food Scares: Culture and Commerce in an Anxious Age: Culture and Commerce in an Anxious Age*. Oxford: Oxford University Press, 2004.
95. Elizabeth Smythe. "In whose interests? Transparency and accountability in the global governance of Food: Agribusiness, the *Codex Alimentarius*, and the World Trade Organization." In *Corporate Power in Global Agrifood Governance*. Edited by Jennifer A. Clapp and Doris A. Fuchs. Cambridge: The MIT Press, 2009, 93–124.
96. Catherine Dolan, and John Humphrey. "Governance and trade in fresh vegetables: The impact of UK supermarkets on the African horticulture industry." *Journal of Development Studies* 37, no. 2 (2000): 147–76.
97. Elizabeth Ransom. "Botswana's beef global commodity chain: Explaining the resistance to change." *Journal of Rural Studies* 27, no. 4 (2011): 431–39.
98. Courtney McNamara. "The real cost of cheap food, by Michael Carolan." *Critical Public Health* 22, no. 3 (2012): 375–76.
99. Laura B. DeLind, and Philip H. Howard. "Safe at any scale? Food scares, food regulation, and scaled alternatives." *Agriculture and Human Values* 25, no. 3 (2008): 301–17.
100. Otto Hospes. "Food sovereignty: The debate, the deadlock, and a suggested detour." *Agriculture and Human Values* (2013): doi:10.1007/s10460-013-9449-3.
101. Phil Hanlon, Sandra Carlisle, Margaret Hannah, Andrew Lyon, and David Reilly. "A perspective on the future public health: An integrative and ecological framework." *Perspectives in Public Health* 132, no. 6 (2012): 313–19.
102. Geof Rayner, and Tim Lang. *Ecological Public Health: Reshaping the Conditions for Good Health*. New York: Routledge, 2012.
103. Laura Westra. "Life, Health and the Environment." In *Human Health and Ecological Integrity: Ethics, Law and Human Rights*. Edited by Laura Westra, Colin L. Soskolne and Donald W. Spady. New York: Routledge, 2012, pp. 7–19.
104. James R. O'Connor. *Natural Causes: Essays in Ecological Marxism*. New York: The Guilford Press, 1998.
105. Mary Douglas, and Aaron Wildavsky. *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers*, 1st ed. Berkeley: University of California Press, 1983.
106. Julie Guthman, and Melanie DuPuis. "Embodying neoliberalism: Economy, culture, and the politics of fat." *Environment and Planning D* 24, no. 3 (2006): 427.
107. Josée Johnston, and Shyon Baumann. *Foodies: Democracy and Distinction in the Gourmet Foodscape*. New York: Routledge, 2009.
108. Nancy Fraser. "Who counts? Dilemmas of justice in a postwestphalian world." *Antipode* 41, no. s1 (2010): 281–97.
109. Iris Marion Young. "Responsibility and global justice: A social connection model." *Social Philosophy and Policy* 23, no. 1 (2006): 102–30.
110. Iris Young. "From guilt to solidarity." *Dissent* 50, no. 2 (2003): 39–45.
111. Iris Marion Young. *Justice and the Politics of Difference (New in Paper)*. Princeton: Princeton University Press, 2011.
112. Martha C. Nussbaum. *Creating Capabilities*. Cambridge: Harvard University Press, 2011.

113. Eric Holt Gimenez, and Annie Shattuck. “Food crises, food regimes and food movements: Rumblings of reform or tides of transformation?” *The Journal of Peasant Studies* 38, no. 1 (2011): 109–44.
114. Neeraj Vedwan. “Pesticides in Coca-Cola and Pepsi: Consumerism, brand image, and public interest in a globalizing India.” *Cultural Anthropology* 22, no. 4 (2007): 659–84.

© 2013 by the author; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).