



## **Less Meat Initiatives: An Initial Exploration of a Diet-focused Social Innovation in Transitions to a More Sustainable Regime of Meat Provisioning**

CAROL MORRIS, JAMES KIRWAN AND RHONWEN LALLY

*[Paper first received, 31 October 2013; in final form, 16 May 2014]*

**Abstract.** Meat production and consumption as currently configured in developed countries is seen by a growing number of actors as compromising food system sustainability, with the situation likely to worsen as globally meat consumption is predicted to double by 2050. This article undertakes an initial investigation of less meat initiatives (LMIs), which have recently emerged to encourage a reduction in meat eating at a number of different sites and scales. Prominent examples include Meat Free Mondays and Meatless Mondays, which have originated in the UK and the US respectively. Drawing on the socio-technical transitions literature, the article conceptualizes the notion of eating less meat as a predominantly civic-based social innovation, focused on diet, with LMIs representing socially innovative niche projects that have the potential to facilitate a transition towards a more sustainable regime of meat provisioning. Initial empirical evidence derived from primary and secondary sources is used to examine the ‘diffusion’ of LMIs, both in the UK and internationally. A key conclusion is that although LMIs are both replicating and scaling-up they are not translating the idea of eating less meat in any significant way into the mainstream, principally because their demands are too radical. A further conclusion is that while commercial organizations, the media and the state continue to promote high and unsustainable levels of meat consumption, the ability of LMIs to facilitate the diffusion of an innovative social practice – eating less meat – is likely to be limited. Nevertheless, LMIs do have the potential for raising awareness of and fostering debate about meat eating and the arguments for reducing overall levels of meat consumption.

### **Introduction**

The recent controversy in the UK over the ‘contamination’ with horse meat of processed meals purportedly made from beef is the latest in a long line of scandals of meat provisioning, with the outbreak of bovine spongiform encephalopathy (BSE) in cattle and the contamination of ground beef with the bacteria *Escherichia coli* rep-

Carol Morris is Associate Professor at the School of Geography, University of Nottingham, Nottingham, UK, NG7 2RD, United Kingdom; email: <carol.morris@nottingham.ac.uk>. James Kirwan is Reader at the Countryside and Community Research Institute, University of Gloucestershire, Gloucester, United Kingdom. Rhonwen Lally is Geography Graduate from the School of Geography, University of Nottingham, United Kingdom.

resenting other crisis episodes in the UK and US respectively. Such events speak to the idea that meat is a particularly controversial food, albeit periodically.<sup>1</sup> This article explores a new way in which meat is being (re-)politicized that has only recently begun to receive attention from agri-food scholars (Bakker and Dagevos, 2012; Vinnari and Tapio, 2012; Lombardini and Lankoski, 2013; Vanhonacker et al., 2013; Sage, 2014), associated with a series of intersectional concerns about the current configuration of meat provisioning in the developed world. Increasing numbers of actors have identified livestock production as a major contributor to climate change through greenhouse gas emissions, and an inefficient use of natural resources (Steinfeld et al., 2006). Alongside these environmental concerns excessive levels of meat eating have been associated with various chronic diseases. Although meat consumption levels vary between countries in the developed world, overall it is in excess of 220 gr. per person per day, leading health experts to recommend a decrease by more than half (McMichael et al., 2007). Meanwhile meat production, particularly in its most intensive forms, has long been the target of animal rights and welfare groups. Taken together, these meat consumption and production impacts have been conceptualized by some commentators as a 'meat crisis' (D'Silva and Webster, 2010), which is likely to worsen as meat consumption is predicted to double globally in a business as usual scenario by 2050 (Steinfeld et al., 2006). As such, a reduction in the consumption of meat has been highlighted as likely to have the most significant and immediate impact on making diets more sustainable (Garnett et al., 2013), i.e. socially just, environmentally benign,<sup>2</sup> and economically sound.

This recommendation, however, ignores a number of highly significant counter tendencies. First, there is a growing recognition that different meats and different meat production systems vary substantially in terms of their environmental impacts: for example, in relation to their feed conversion ratios, or whether animals have been fattened on imported concentrates or are grass fed (Hamerschlag, 2011). Likewise, changes in breeding practices, including the use of genetic modification and the development of new technologies such as in vitro meat, might help to reduce the environmental impacts of meat production (Beddington, 2010), thereby lessening the imperative to eat less meat. Second, meat retains a potent symbolic status in western culinary and nutritional culture (Fiddes, 1991), suggesting that directives to reduce the amount of meat consumed are likely to face some, if not considerable, resistance from individual meat eaters. Third, and perhaps most significant, are the institutional barriers associated with the considerable economic capital tied up in the meat and livestock industry (D'Silva and Tansey, 1999). This is demonstrated very powerfully in Robinson Simon's (2013) recent analysis of 'the rigged economics' of the US meat and dairy industry. The 'meatonomic' system, Robinson Simon argues, encourages both an overproduction and overconsumption of animal foods – for example, through the high levels of public subsidy to livestock agriculture and the undue influence of the livestock industry on the regulation of the food system.

Nevertheless, steps are being taken to address the apparent excess of meat production and consumption. This article focuses on one of them, 'less meat initiatives' (LMIs). LMIs are organized and formalized efforts that are attempting to mobilize action to reduce meat eating at a number of different sites and scales. Prominent examples include Meat Free Mondays and Meatless Mondays, which have originated in the UK and the US respectively and are having an influence beyond their original geographical contexts, and the Belgium town of Ghent's pioneering weekly meat-free day. Although a recent phenomenon, LMIs are growing in number, are

attracting increasing media attention and have characteristics that distinguish them from more established initiatives that organize to eliminate meat and other animal products from the diet, such as vegetarianism and veganism (Maurer, 2002; Morris and Kirwan, 2006).

Drawing on primary and secondary information sources, the aim of this article is to undertake an initial investigation of LMIs in order to explore their potential to contribute to a transition towards a more sustainable system of meat provisioning. In framing the rationale for our task in this way, we draw on a particular branch of the socio-technical transitions literature, namely strategic niche management (SNM) (Schot and Geels, 2008), which has been mobilized increasingly to explore various means of effecting governance' of transitions to greater sustainability. More specifically, the concept of 'grass-roots innovations' enables a focus on the development of social innovations within civil society contexts (Seyfang and Haxeltine, 2012). The article argues that this approach can be employed to conceptualize the notion of eating less meat as a predominantly civic-based social innovation, focused on diet, with LMIs representing socially innovative niche projects that may facilitate a transition towards a more sustainable regime of meat provisioning. The remainder of the article is structured as follows. The next section discusses the sustainability transitions literature and a particular dimension of this that focuses on the growth and diffusion of innovative niches and their projects into wider society. After describing briefly the methods employed to produce information about LMIs, the article then utilizes aspects of the empirical evidence to elaborate how eating less meat can be framed as a social innovation, with LMIs as innovative niche projects. Drawing on other parts of the empirical material the diffusion of LMIs, both in the UK and internationally, are then explored in terms of their 'replication', 'scaling-up' and 'translation' of the ideas underpinning these niche projects. In concluding, the article argues that although there is evidence for the first two dimensions of diffusion, LMIs do not appear to be contributing in any significant way to the translation of the idea of eating less meat into the mainstream, because their demands are too radical. However, in spite of the conflicts and contestations associated with this social innovation, the article suggests that LMIs do have a useful role to play in raising awareness of and fostering debate about meat eating and the arguments for reducing overall levels of meat consumption. Further, in particular spatially delimited sites such as schools and other institutions, LMIs can also provide an introduction to the *practices* of eating less meat. Finally, suggestions are made for further research into this significant sustainability challenge.

### **Socio-technical Regimes, Green Niches and Grass-roots Social Innovations**

Debate about how to improve the sustainability of modern industrial societies has led to a growing interest in how such transitions can be governed in practice. In this respect, the work of Geels and Schot (2007), amongst others (e.g. Rip and Kemp, 1998; Wiskerke, 2003; Geels, 2005; Lawhon and Murphy, 2011), provides a useful starting point in helping to understand the complexity of governance' of transitions to greater sustainability, through developing the notions of a multilevel perspective (MLP) and socio-technical transitions (STT). In this approach, transitions are defined as being changes from one socio-technical regime to another, involving different actors aligning their interests in order to stabilize their activities within a particular regime of operation. The notion of socio-technical highlights that a regime is a com-

plex assemblage of both technical artefacts and social relations (Smith, 2007). Geels and Schot (2007) identify three key elements within the MLP: the socio-technical landscape, the socio-technical regime, and niche innovations. Within the context of this article, the *socio-technical landscape* represents pressures that are exogenous to the specific context of meat provisioning and yet have an influence on it – for example, concerns about climate change and resource use. Not all of these pressures may be focused directly on meat provisioning, and yet are increasingly creating an imperative for change. The *socio-technical regime* of meat provisioning can be thought of as being the existing mode of operation, or status quo, which includes how issues are framed, normalised practices, and the way in which the regime is embedded within particular institutions and governance mechanisms (as illustrated by Robinson Simon, 2013). This constellation has stabilized over time, making it difficult for new modes of organization, such as diets based on lower levels of meat eating, to develop and bring about change. The third element, *niche innovations*, can be understood as small-scale initiatives that at present may not be putting pressure directly on the socio-technical regime to change, and yet have the potential to do so. They are usually developed from the bottom up rather than being imposed from the top down, and they are the likely source of ‘revolutionary’ change as opposed to the ‘incremental and path dependent’ changes taking place *within* the regime (Smith, 2007).

The relationship between niches and regimes is key to understanding the nature of transitions to greater sustainability, notwithstanding that pressures may also be exerted on an existing regime from the landscape level. In this respect, the notion of ‘transition’ to a different socio-technical regime is helpful, as well as a recognition that it is highly contingent on a range of processes and constituent parts, not least the ‘multilevel dynamics’ that are likely to be involved (Wiskerke, 2003). In practice, the outcome of the interaction between a given regime and niche innovations is dependent upon the relative strength and stability of each. For example, how much pressure is the existing regime under to become more sustainable? How well developed is the niche, and how much financial, institutional and political support does it have? Unless niches secure this support, they are likely to have little impact (Smith, 2007). This signals the role of power and the politics of transitions, issues that Lawhon and Murphy (2011) argue have been given insufficient attention in transition research, but which can be understood through a language-based approach, i.e. the discourses mobilized by actors as they seek to effect or block change.

A number of further perceived weaknesses have been identified in the STT approach, including an overemphasis on technological artefacts as agents of change, rather than examining the social context and behavioural response that results from the pressures for change. The framework has also been criticized for failing to address the spatialities of transition and for focusing on those actors who are responsible for developing policy changes, rather than on those who may be directly affected by them or actually need to implement them in their daily lives in order to make the transition towards a more sustainable lifestyle (Lawhon and Murphy, 2011). In response, Seyfang and Smith (2007, p. 585) introduce the concept of ‘grass-roots innovations’, which they define as ‘networks of activists and organisations... experimenting with social innovations’ in order to develop innovative niche-based approaches that offer a more sustainable alternative to the mainstream. The inclusion of the *social* dimension is distinctive, which Seyfang and Haxeltine (2012, p. 382) argue ‘provides a conceptual framework for examining the role of a civic society in the emergence and governance’ of transitions to greater sustainability. Although

some authors express concern about the ‘fuzziness’ of the term *social innovation* (e.g. Bock, 2012; Neumeier, 2012), there is a broad consensus that it involves new forms of organization both at institutional and personal levels. Key to such transformations is the development of ‘green niches’, described by Seyfang and Smith (2007, p. 589) as ‘sustainability experiments in society in which participation is widespread and the focus is on social learning’.

Building on this perspective, the article argues that the idea of eating less meat can be conceptualized as a social innovation with LMIs as green niche projects based on this innovation. Such projects have the potential to bring about change or transformation in the dominant regime of meat provisioning, to make it more sustainable. Further, this article utilizes a particular branch of the socio-technical transitions literature, namely strategic niche management (SNM) (Schot and Geels, 2008), which is concerned with understanding how innovations, with the potential to contribute to sustainable development, can become established and lead to change in the overarching regime (Kemp et al., 1998). In their application of SNM to the analysis of the Transition Town movement, Seyfang and Haxeltine (2012, p. 384) argue that it is important to realize that grass-roots innovations are distinctive from the technological, market-based innovations more usually associated with the SNM literature. In this respect, the innovation is intent on ‘developing new ideas and practices; experimenting with new systems of provision; enabling people to express “alternative” green and progressive values; and the tangible achievement of sustainability improvements, albeit on a small scale’. This is highly pertinent to the examination of LMIs, as elaborated in the following section. In seeking to understand how such niche projects can facilitate the diffusion of innovative socio-technical practices, the literature suggests that it can be achieved through one or more of the following ways: by *replication* of the project or initiative involved; through growing it in terms of *scale* by attracting more participants; or by *translating* the key ideas underpinning the niche into mainstream thinking (Seyfang and Haxeltine, 2012, p. 384). Here, the focus is on the extent to which individual LMI projects are being replicated (both geographically and institutionally), the evidence for up-scaling of these projects through the enrolment of more participants, and the translation of the eating less meat idea into mainstream settings, such as by its promotion by mainstream actors.

In considering the challenges faced by LMIs as they diffuse and seek to effect changes in the regime, the analysis also draws on Smith’s (2006) proposition that innovative socio-technical niches need to combine ‘radical’ and ‘reforming’ characteristics. In other words, niches must be both at radical odds with the incumbent socio-technical regime and demonstrate some compatibility with that regime, even though such compatibility blunts the innovative potential of the niche (Smith, 2006). In practice, this implies that there must be niche elements that can be appropriated easily by the mainstream, leading towards mildly more sustainable reforms. Meanwhile, the more radical practices of the niche can and will continue to be pursued by committed actors within a renewed niche who remain advocates for more radical systems innovations. In the following section we discuss the operationalization of this conceptual framework through the use of a number of methods.

## Methods

The data discussed in the subsequent sections of the article were derived from a combination of secondary and primary research strategies. In the first instance, the

aim was to try to scope the range of LMIs both nationally and internationally. In order to do this, an online 'snowballing' approach was taken to the identification of LMIs between mid-May and mid-June 2011, starting with the websites of high profile LMIs that were widely discussed in the media at that time, such as Meatless Monday in the US and Meat Free Mondays in the UK. From these websites, it was possible to identify the websites of other LMIs with which they had connections but also organizations who were in some way engaged in or interested in the development of initiatives to eat less meat. This process continued until no further leads were found. In addition, a Google search was undertaken to produce further data that may have been missed by the above approach. The choice of Google as a search engine is justified by previous studies that have established search engine accuracy (Thelwall, 2008; Weaver and Bimber 2008). It is acknowledged, however, that 'any search engine provides access to only a portion of the Web' (Bryman, 2012, p. 655). A variety of search terms were employed, including 'less meat', 'meatless', 'meat less' and 'meat reduction and climate change'. This search revealed little new data, which in itself was a helpful confirmation of the approach taken. The procedures were repeated in the same period in 2013, in order to ascertain whether LMIs were still in operation, how they had developed and whether new initiatives had emerged. This revealed only very limited changes to the picture established in 2011. For example, two additional activities based in the UK were identified and an evolution in some existing LMIs, e.g. the London-based Dulwich vegan and vegetarian societies' meat-free day identified in 2011 had been incorporated into the London vegan societies' meat-free day in 2013. In a small number of other cases an LMI identified in 2011 was no longer active, e.g. the UK's Vegetarian Society no longer carried a link to MFM and the proposal to implement meat-free menus in the UK's National Health Service had made no further progress. All relevant information from LMI websites was downloaded into a Word document to enable thematic analysis of the text. It is acknowledged that this type of approach is limited to those LMIs with a web presence and that communicate in English. At the very least it has been possible to identify the *presence* of an LMI in countries that are not English speaking (e.g. Brazil), because reference is made to them by LMIs located in an English-speaking context. A detailed understanding, however, of these LMIs has not been possible through this methodological approach.

In addition to this secondary research, primary research was undertaken into the most high-profile initiative in the UK: Meat Free Mondays (MFM). It is also the LMI that is referred to most frequently by LMIs based in other countries. The research approach involved an online questionnaire survey of 48 MFM participants recruited via the MFM's Facebook page, with support from the MFM campaign manager who posted a link to the questionnaire. This approach generated an 'availability sample' as respondents were self-selecting and limited to those who regularly use the Internet (Cloe et al., 2004). In addition, 14 semi-structured interviews were conducted with people closely linked to or involved in MFM, forming a 'judgemental sample', including two MFM representatives, a catering company involved in delivering MFM in schools, two UK Members of Parliament, and students from universities in the UK and Hong Kong, where MFM projects have been implemented. Finally, to gain an understanding of how MFM is being portrayed in the media, 95 articles from UK-based regional and national newspapers containing the phrase 'Meat Free Monday' were identified for analysis, from the database Lexis Nexis.

### Less Meat Initiatives as Socially Innovative Niche Projects

In this section, by drawing on aspects of the empirical evidence, we elaborate how the idea of eating less meat can be framed as a social innovation with LMIs as innovative niche projects. The idea of eating *no* meat is an ancient one, albeit more recently promulgated by the modern vegetarian and vegan movements (Maurer, 2002). Notwithstanding the US wartime initiative of Meatless Monday (MLM), the concept of eating *less* meat in order to make meat provisioning more sustainable has come to prominence only since the turn of the century. One of the first LMIs to be established, in 2003, is Meatless Monday. It is a US-based project of the not-for-profit Monday Campaigns, in association with the Johns Hopkins Bloomberg School of Public Health and its Center for a Livable Future. Described as a 'public health awareness programme' and endorsed by 20 Schools of Public Health, Meatless Monday aims to reduce the risk of preventable diseases in the American population by reducing the consumption of saturated fat, while at the same time reducing carbon footprints and saving resources like fresh water and fossil fuel. The initiative provides information and recipes for healthy, environmentally friendly, meat-free meals. The most prominent LMI in the UK is Meat Free Monday, established in 2009 by the former Beatle Paul McCartney and his family. Based in London, the primary aim of this not-for-profit initiative is 'to raise awareness of the environmental impact of meat eating and encourage people to meaningfully reduce their greenhouse gas emissions by having at least one meat-free day every week' (McCartney, 2009). In addition to these two national level awareness-raising and information-providing LMIs, individual towns and cities such as San Francisco, Ghent, Cape Town and Sao Paulo have instituted meat-free days (MFDs), typically at the behest of the town or city council, but with the support of a range of other organizations in the non-governmental, public (e.g. hospitals and schools) and private sectors (e.g. restaurants). These examples demonstrate how LMI projects of this type enrol actors from different parts of society into the meat reduction agenda.

LMIs typically take the form of MFDs with Monday being the preferred day of action.<sup>3</sup> This temporality has been explained in historical terms, as successful US-based campaigns during the First and Second World Wars to encourage less meat consumption were organised on a Monday, along with 'wheatless Wednesdays' (Foodwise, 2013a). Another reason for the Monday focus is that for many this is the beginning of the working week and the start of a weekly routine, which the Monday Campaigns has demonstrated 'positively affect[s] a range of healthy behaviors' (Monday Campaigns, 2013). Another, less prominent type of LMI project is the meat-free menus offered by both public and commercial institutions. For example, the Sustainable Development Unit of the UK's National Health Service proposed, as part of its carbon-reduction strategy, that meat-free menus should be introduced into hospitals in 2009. At the time of writing, this remains a proposal and is indicative of the barriers that exist to this social innovation, which are discussed below.

The websites of LMI projects typically feature lists of organizations that have endorsed the initiative, amongst which environmental, animal rights/welfare, and diet-based NGOs feature strongly. Alongside this support from the non-governmental sector, celebrity endorsements of some LMIs such as MFM and MLM are very pronounced. For example, TV presenter Oprah Winfrey is reported as playing a key role in raising public awareness of MLM in the US (Scott-Thomas, 2011). These connections between LMIs and other organizations and individuals are part of the process of their legitimization, which is also evidenced in the discursive connections

that LMIs make to past campaigns that have encouraged a reduction in a particular aspect of consumption. The wartime meat-reduction campaigns have already been mentioned, but the San Francisco based MFD provides a further illustration. This LMI has been initiated by the city's Board of Supervisors, which formally recognizes the city's Vegetarian Society's 'Meat Out' day:

'The idea for the Great American Meat Out is based on The Great American Smoke Out of years ago, encouraging smokers to go without smoking one day. 'Now we encourage people to go without meat one day in hopes they will kick the 'meat habit' and replace it with good food and good health' (Lee, 2011).

An explicit connection is made between 'meat out' and 'smoke out', to help make the former both more familiar, i.e. this sort of action has been taken before so there is nothing to fear, and more meaningful, i.e. it is for a good cause, benefitting the participant (the smoker/meat-eater) and others (the second-hand smoker/societal and environmental health).

LMIs comprise, therefore, networks of people, most of which originate within the civic sphere. They are intent on developing new ways of engaging with meat, and in particular reducing the total amount that is eaten. In doing so they are non-conformist since they contest the dominant diet, which has meat at its centre, in Europe and North America and, increasingly, other 'westernized' countries, arguing that dietary practices with respect to animal proteins need to be thought about and carried out differently. The focus is on changing the perceptions, attitudes and practices of those involved, both at an LMI level and, more broadly, within the meat-provisioning regime, thereby highlighting the social nature of this innovation (Neumeier, 2012). Enabling the expression of alternative, green and progressive values is another feature of social innovations and in the case of LMIs this is revealed in the main arguments they advance for reducing meat consumption. Four are particularly prominent. First, the assertion is made that it will benefit the *global* environment with the dominant discourse here being the relationship between meat production–consumption and climate change. Reference within this context is often made to the 2006 FAO *Livestock's Long Shadow* report (Steinfeld et al., 2006), which is concerned with the resource-use implications (especially for water, land and fossil fuels), deforestation and climate change of escalating levels of meat production. Meat Free Mondays, for example, states that 'We're not asking you to give up meat completely, we're encouraging you to do your bit to *help protect our planet*. By joining together in having one meat-free day each week *we'll be making great steps towards reducing the environmental problems associated with the meat industry*' (<<http://www.meatfreemondays.com>>, emphasis added). Likewise, in the case of the animal rights NGO Animal Aid's Meat Free Monday campaign, the emphasis is placed on the environmental possibilities of meat reduction with comparison being made to road transport: 'If everyone in the UK adopted Meat-Free Monday, it would result in greater carbon savings than taking five million cars off the road' (Animal Aid, 2011).

Second, it is claimed that reducing meat consumption is good for your health, with a number of LMIs stressing that in countries such as Australia, Canada and the UK we eat more meat than is good for us, leading to higher levels of some forms of cancer, heart disease, obesity and diabetes. Australia's Meatless Monday initiative highlights the health arguments of eating less meat, as well as the climate benefits:

'MFMs is a campaign encouraging Australians to go meat free for one day a week, for the good of their health and the good of their planet... It has long dominated our dinner plates and taken centre stage in the very idea of being Australian. The problem is, our love of meat has begun to take a big toll on both our health and the health of our planet... That's where we come in. MFMs is a fun, positive and powerful way to raise awareness about the personal health and environmental benefits of reducing our meat consumption' (Foodwise, 2013b).

Third, LMIs argue that animal suffering will be reduced and/or animal welfare will be improved either through reducing the amount of meat consumed (and, by implication, requiring fewer animals be slaughtered) or through eating less meat that is of a higher quality in terms of its production practices. In the case of PETA's (People for the Ethical Treatment of Animals) promotion of a meat-free day, reducing animal suffering is given particular prominence: 'Intensive farming and the transporting and slaughter of animals cause animals fear, pain and stress... By reducing our meat... consumption, we can decrease the number of animals who endure traumatic experiences' (PETA Education, 2013).

The fourth argument mobilized by LMIs concerns the alleviation of world hunger, linked to the quantity of plant protein fed to animals (rather than directly to humans) and the relatively poor conversion ratio of plant to animal protein. For example, in launching its Meat-free Day campaign the city of Cape Town highlights the 'intensely energy intensive' nature of beef farming:

'as is demonstrated by the fact that it takes the equivalent of a seven-minute shower each day over six months to produce just 500 grams of beef. According to the United Nations, every day a billion people go to bed hungry, whilst the Western world diverts a third of the world's grain harvest to feed livestock' (City of Capetown, 2013).

In spite of a broadly common agenda, it is clear that the principal arguments are not given equal emphasis across LMIs, reflecting the interests of the organization that has established the LMI (e.g. an animal NGO is more likely to emphasize the animal welfare gains of eating less meat) and the sociocultural and political contexts in which it is operating (e.g. in the US the health arguments of MLM are probably perceived to resonate more strongly than those concerning climate change, although this particular LMI has its roots in public health).

Another aspect to consider is *who* is being encouraged to act, i.e. to be enrolled into specific LMI projects. This is not always made explicit, and needs to be interpreted in relation to the nature of the LMI organizer(s) and the discourses employed. The primary actor emphasized is the citizen, albeit identified at different scales, i.e. the citizen of a city, nation state or the globe. For example, in promoting MFM in schools, PETA refers to this as 'an exciting cross-curricular global citizenship project' (PETA Education, 2013). Meanwhile, MFM itself asserts that 'the best hope for change lies in average people becoming more aware of the true costs of industrial meat production and taking action themselves' (<<http://www.meatfreemondays.com>>). The consumer is a subjectivity that also features in LMI discourse, e.g. as purchasers of a company's meat-free foods to satisfy their own desires, as in the case of the promotion of MFM by Goodlife Foods. That the consumer is the subject of interest is also evident in the fact that although the message is on reducing the amount of meat that is consumed, this is quite often framed in terms of providing more menu

options, or even greater choice, as well as being an aspiration rather than an imposition. Such notions fit very clearly into the prevailing discourse of consumerism. At times a hybrid subjectivity of the consumer–citizen (Johnston, 2008) appears to be the target of mobilization, when participants are urged to purchase meat-free foods to satisfy themselves but also to achieve wider socioecological benefits, i.e. improvements for the environment, animals and human welfare. In the case of some LMIs, individuals (either as consumers and/or citizens) are left to act alone albeit encouraged and supported by the campaign, e.g. MLM Canada and Australia, and Cape Town’s meat-free day. Meanwhile, in other LMIs, food provisioning institutions and organizations are enrolled by the initiative to assist participants in making meat-free choices, e.g. Ghent’s meat-free Thursday involves the provision of meat-free menus by restaurants, shops and hospitals. In such cases the emphasis is clearly *collective* local-level action that includes individuals and organizations working together to facilitate a reduction in meat consumption. This is captured in the US MLM’s aim to create ‘a broad-based, grassroots movement that spans all borders and demographic groups’ (Meatless Monday, 2013).

Since the ultimate aim of the LMI green niche is to enable a transition to greater sustainability within the meat-provisioning regime, it can be understood as predominantly ‘strategic’ in character concerned with realizing ‘diffusion’ benefits that value the niche as a means to an end. However, appeals to the personal health benefits of reducing meat consumption within some LMI projects signal that it also has a ‘simple’ quality in the terms of Seyfang and Smith (2007), i.e. focused on ‘intrinsic’ benefits that value the niche for its own sake and are not seeking regime change. In adopting a social innovations approach to the conceptualization and analysis of LMIs, we recognize that niches on their own will not lead to regime change, but that they are sites where ideas can be developed as to what can be done differently; furthermore, that they will have little impact unless they are supported in some way, either financially, institutionally or in terms of policy (Kemp et al., 1998; Seyfang and Haxeltine, 2012).

### **The Diffusion of Less Meat Initiatives**

Having made the case for understanding the idea of eating less meat as a social innovation with LMIs as niche projects that express alternative, green values and that seek to encourage new attitudes, perceptions and practices in relation to meat consumption both individually and institutionally, the article moves on to examine the diffusion of this niche and the politics of this process. As the literature suggests, this can be achieved through one or more of the following: replication, scaling up, and translation, each of which is now considered in turn. We draw on both the primary and secondary sources of information analysed in order to provide evidence for each of these dimensions of diffusion.

#### *Replication*

There is clear evidence to suggest that LMIs are being replicated, with the web-based research revealing activity in many countries, including within Europe (UK, France, Belgium, Finland, Spain, Germany, Croatia), North and South America (US, Canada, Brazil), South Africa, the Middle East (Israel), Asia (Singapore, Taiwan, Hong Kong

and Japan) and Australia. However, this may be an underestimation of the spatial reach of LMIs as the MLM initiative claims it has now been implemented in 23 countries. We interpret replication as taking place both through *adoption* of an LMI project, entailing its implementation within specific institutions and the reshaping of their practices and procedures, and also through the *promotion* of an LMI project. Examples of *adoption* include the proposal to implement MFMs in the catering outlets of the UK's House of Commons, and the actual implementation of MFMs in schools, colleges and universities across the UK. In 2010, for example, it was reported that three Oxford University colleges 'have made meat free meals the default Monday option for students' (Griffin, 2010). An MFM representative claimed in interview that it is 'active in schools all over the country', with Preston Manor School in Wembley, London providing a detailed account of its engagement with MFM on its own website. The primary research on MFM suggests that replication is more likely to occur when institutions 'opt in' to an LMI project and take ownership of the notion of reducing the amount of meat in the diet, rather than this being imposed from above (see section on translation below). In schools, for example, the young people involved in MFM have been seen as more willing to do this on the grounds of trying something new, as well as feeling part of something exciting and in which they have a say. MLM in the US also claims to have been adopted widely by schools, colleges, universities, restaurants, and hospitals across the country and these are listed on the website of this LMI. Although, as the theory of social innovations suggests, the majority of actors involved in establishing LMIs are from within civil society; food companies – manufacturers, caterers and restaurants – also feature in the adoption of LMIs.

LMIs are also *promoted* by a wide range of organizations. While it is acknowledged that this is not the same as implementing a meat-reduction project in a specific institutional or individual context, promotional activities can be seen as a form of replication as they take the meat-reduction agenda beyond the organizations that have actually initiated an LMI project. Some of the organizations that are promoting an LMI are concerned with animal rights, e.g. Animal Aid and PETA both promote MFM. Others are mobilizing for dietary change that involves the reduction or elimination of animal foods. In the case of the latter, national vegetarian (e.g. France, Singapore, UK) and vegan societies (e.g. the US-based 'Meatout' organization is associated with Tel Aviv University's Meat Free Day) appear to be playing an influential role, although they are by no means the only actors. As such, the less meat agenda should not be interpreted as driven wholly by vegetarian and vegan interests. Environmental NGOs, including the Young People's Trust for the Environment, Friends of the Earth UK and Earthsave Canada also feature as promoters of LMIs. The majority of organizations that promote LMIs are within the non-governmental sector. However, commercial promotion of an LMI project is also evident albeit to a relatively limited extent, e.g. Goodlife Foods and Linda McCartney Foods, both manufacturers of meat-free products, promote MFM.

### *Scaling Up*

The presence of LMIs in multiple locations across the globe and in diverse institutions within any one country provides one indication of the diffusion of this social innovation. It is also necessary to establish the extent and nature of participation in these LMIs in order to assess the degree of 'scaling up'.

Although the information is preliminary, LMIs in both the UK and the US are attracting growing numbers of participants with social media playing a crucial role in this process. The main focus of communication for MFM is through its website, as well as through Facebook and Twitter. The survey of its Facebook members revealed that over two-thirds had first heard about MFM through social media and, once involved with MFM, nearly all of their communication with fellow participants was via the Internet. In terms of the numbers of participants, reporting on his blog in July 2009, *The Guardian* newspaper's ethical living and environmental journalist Leo Hickman commented 'I see that [MFM's] Facebook page has more than 3,600 followers', suggesting that a process of scaling up is underway. However, Hickman goes on to reflect 'but is anyone out there really giving up their bacon sarnies on Monday mornings?' (Hickman, 2009); the implication being that scaling up is not necessarily indicative of changes being made to the diets of individuals. Evidence from the US appears to be a little more conclusive. A 2011 online poll revealed that 50.22% of 2,000 American adults in a nationally representative sample were aware of MLM, and up from 30% awareness six months before that (Scott-Thomas, 2011). In response to the survey results, the initiative stated on its website: 'This is astonishing given that the campaign has no paid media or even pro bono advertising typical of public service campaigns.' Instead, it is claimed that awareness is being driven by viral Internet campaigns and the participation of key organizations, such as the catering company Sodexo,<sup>4</sup> and influential individuals in the media, including Oprah Winfrey. The poll also revealed that among those who said they were aware of the MLM initiative, 27% claimed that it had influenced their decision to cut back on meat, suggesting that the LMI is already attracting a not insignificant number of participants.

### *Translation*

In this section we explore how and the extent to which the key idea underpinning the LMI niche – eating less meat – is being translated into mainstream thinking. This is a more challenging dimension of diffusion to evidence and requires interpretation of a range of secondary sources, including media commentary. Important here is a consideration of the ways in which the idea of eating less meat is being contested as this will reveal the barriers to its translation. Meat eating comprises an important dimension of recently published reports by mainstream actors such as the FAO (Steinfeld et al., 2006), the UK government's advisor on sustainability issues the Sustainable Development Commission (SDC, 2009), and financial organizations such as the Deutsche Bank (Deutsche Bank Research, 2009). This demonstrates that at the very least there is a debate taking place about eating less meat in an increasing number of arenas. Further, recent market research has claimed that meat sales in Europe and North America have slowed considerably and that there is a 'growing trend towards meat-free or meat-reduced diets' (FoodAndDrinkEurope.com, 2011). A Mintel survey of 2,000 US adults reported that 39% of participants claimed to be eating less beef in 2013 than in 2012 (Taylor, 2014). A variety of reasons for this shift are identified, including health, environmental, animal welfare and financial, reasons that are advanced by the LMIs themselves. While FoodAndDrinkEurope.com (2011) argues that government public health initiatives that encourage citizens to reduce their salt intake or increase their consumption of fruit and vegetables 'have all impacted meat consumption', it also suggests (but provides no supporting evi-

dence) that LMIs, identified within the report as ‘celebrity-led campaigns’, are also contributing to the reduction in meat eating. Such claims about broad changes in meat consumption provide an early indication of the translation of the idea of eating less meat into the mainstream.

The 2011 poll (on awareness of MLM and associated dietary change) referred to in the previous section is reported by an organization that represents the meat processing industry and the report goes on to say: ‘Commenting on the MLM initiative’s potential impact on the meat industry, communications director of the Animal Agriculture Alliance Sarah Hubbart said it is “*something to watch*” but added that 97% of Americans choose to include meat, milk and eggs as part of their diet’ (Scott-Thomas, 2011). This suggests that economic actors within the mainstream meat-provisioning system in the US, while aware of LMIs, are not unduly perturbed by their emergence. In the UK, however, parts of the farming industry, particularly those associated with the livestock sector, have contested LMIs. For example, Rees Roberts, Chairman of Meat Promotion Wales, July 2009, is reported by the BBC to have argued that: ‘We’ve had celebrities calling for meat-free Mondays and even a town in Belgian trying to ban meat one day a week. The more extreme elements go further, accusing livestock farmers and meat eaters of killing the planet and heaping all the woes of climate change onto our shoulders’ (Hickman, 2009).

Likewise, a Welsh MP and Liberal Democrat rural affairs spokesperson condemned the NHS’s proposal to introduce meat-free menus on the grounds ‘that it would deal a “significant blow” to the livestock industry and have limited environmental benefits’ (MeatInfo.co.uk, 2009). That livestock farmers and their representatives should express concern about LMIs is perhaps to be anticipated, although as the coordinator of the Cape Town’s meat-free day points out, eating less meat can provide opportunities for the producers of welfare-friendly meat as the initiative: ‘[It] encourages everyone to eat less but better meat – preferably free range meat products. Eliminating meat from your diet for one day a week will result in a saving... That saving can be used to buy healthier and more humane free-range meat’ (Pollack, 2010).

Similarly, in its promotion of MFMs the Young People’s Trust for the Environment (YPTE) asserts that a reduction in meat intake need not have negative consequences for farmers:

‘After all, our population is rising, so the demand will still be there, even if we all do eat less. But hopefully we can reduce our reliance on large scale industrial farming systems and instead give our support to the farmers who are operating on a less industrial scale. If we all eat less meat, but choose better quality meat when we do buy it, rather than cheap imported meat, we will be supporting our own farmers and helping to promote good animal welfare’ (YPTE, 2013).

Both of these quotes suggest that the relationship between the agendas of LMIs and meat producers is not as straightforward as some meat industry commentators suggest.

This contrasts with the sometimes vehement resistance to LMIs that has been evident in both local and national government contexts in the UK. The most widely reported case of local level contestation occurred in Brighton, Sussex, a town on the coast of Southern England that is popularly known for its ‘alternative’ culture and the first parliamentary constituency in the UK to elect a Green Party member of par-

liament (MP) following its local electoral success. In its 2011 election manifesto, the Green Party pledged to introduce MFMs in all of the town council's catering outlets. A pilot MFM project was implemented in selected council departments, but proved to be so unpopular with the refuse collectors based in a particular city council depot that it was abandoned almost immediately. One national newspaper reported how a protest had been 'staged by "disgusted" workers when their canteen had removed bacon butties and lamb chops from the menu' (Daily Mail Reporter, 2011). The town's council viewed the failed pilot as 'disappointing', but said that it would 'work to communicate the benefits better and work more closely with the workforce in any future plans' (Daily Mail Reporter, 2011), suggesting that a MFD may yet materialize within council premises.

Elsewhere, the efforts of other town councils have also failed to implement an LMI, both in the UK (e.g. MFM at Manchester City Council) and in Espoo, Finland, for example, where the focus was school meals (*Helsingin Sanomat*, 2010). Again, this provides evidence of the problems of translation that this diet-focused social innovation is encountering. Alexis Rowell, a councillor and leader of a sustainability task-force group from Camden Borough Council in London, attempted in 2009 to 'put less but better meat' (*Hampstead and Highgate Express*, 2013) on the menus in the council's canteens. An earlier attempt to provide meat-free menus had been 'laughed off in the borough' according to the local press, blocked by Conservative councillors. Although the campaign was reinvigorated by the NHS's announcement in January 2009 that it planned to reduce the amount of meat on its hospital menus,<sup>5</sup> it was immediately criticized by Conservative councillor Martin Davis, head of the borough's health strategy, who is reported to have said that:

'My opposition to this comes from the fact that I want people to have choice. I don't want us to say what people can and can't do. There should be meat options and non-meat options so if people want they can choose to not eat meat for environmental reasons' (*Hampstead and Highgate Express*, 2009).

The initiative was subsequently abandoned by the council (Alexis Rowell, former Liberal Democrat councillor at Camden Borough Council, personal communication, 10 March 2014).

Although most of the instances of resistance to LMIs by mainstream actors are evident in the context of local government, attempts to encourage less meat eating in the UK's national parliament have also been challenged, providing further evidence of the barriers to translation. Here, three MPs (Green, Labour and Liberal Democrat) attempted to introduce MFM into the House of Commons catering facilities. Having made their request to the Director and Head of Catering and Retail Services in the Houses of Commons and Lords respectively, they received a negative email response in October 2010 from the former who said: 'I fear that it would be deeply divisive and disruptive to enforce an eating regime – even for one day – that denied our customers the opportunity to eat meat if they so choose.' The Green Party MP – Caroline Lucas – subsequently provided written evidence, including the email from the Director of Catering and Retail Services, to the Administration Committee of the House of Commons requesting that the Committee consider two proposals to help reduce the carbon footprint of the catering department. One of the proposals was the introduction of MFM with the argument made by Lucas that 'Parliament could send a powerful message and set a great example by designating one day a week as meat-free' (House of Commons Catering and Retail Services, 2011). Further steps

were taken by John Leech MP (Liberal Democrats) to try to implement MFM in all cafeterias in the Houses of Parliament by tabling an early day motion (EDM) on 6 September 2010. The EDM was signed by 33 MPs, of which the majority were from the Labour Party, eight from the Liberal Democrats and two from other minority parties. No Conservative Party MPs were signatories (House of Commons Early Day Motion, 2010). The EDM was unsuccessful. More recently, in the period leading up to the September 2013 general election in Germany, it was reported that the Green Party's proposal to institute a 'veggie day', in which canteens would be obliged to offer only vegetarian meals on one day of every week, had contributed to a slump in the polls and limited the Party's chances of electoral success (Connolly, 2013).

### Discussion and Conclusions

This article has undertaken an initial examination of LMIs, a recent development that seeks to effect dietary change as a means of contributing to a transition to a more sustainable regime of meat provisioning. The field of agri-food studies has been rather slow to engage with the wider debate about eating less meat and so one of the contributions of this article has been to extend this engagement through analysis of LMIs and their international development. The application of aspects of the STT literature to the examination of LMIs is also novel and, in turn, enables important questions to be raised about the less meat agenda. The article has argued that the new engagements with meat that LMIs are attempting to foster, notably the idea that eating less meat is desirable environmentally, socially and economically, can be understood as socially innovative in the terms of STT. Through activities and projects that arise mostly within civil society, LMIs are mobilizing to change the perceptions, attitudes and practices towards the consumption of meat, both at the level of individual participants but also within institutions in the meat provisioning regime. Further, LMIs express alternative, green and progressive values through the arguments that they make about why less meat should be eaten, emphasizing the benefits to the global environment, animal welfare, human health and social justice.

The major concern of the article has been to examine LMIs through the lens of the STT literature rather than to scrutinize an aspect of that literature using LMIs as the empirical vehicle for doing so. Nevertheless, by utilizing this literature to explore LMIs the article has extended its empirical scope to incorporate issues of dietary practice, which to date has been neglected in this body of work even though it is beginning to be actively and productively utilized in other food provisioning contexts (e.g. Smith, 2006, 2007; Kirwan et al., 2013). Likewise, related scholarship that argues for a focus on civil society lead food provisioning activities from the perspective of 'civic food networks' (CFN) has been similarly neglectful of diet, it being notable by its omission from the list of characteristics of CFNs discussed by Renting et al. (2012), similarly in those concerning alternative food networks (Maye and Kirwan, 2010). This is the case in spite of occasional calls by agri-food scholars to incorporate diet into analysis of these distinctive forms of food provisioning (e.g. Weatherell et al., 2003; Morris and Kirwan, 2006, 2007) and the recognition of a need to develop thinking on sustainable diets within policy debate (e.g. SDC, 2009).

The main conclusion of the article is that although the initial empirical evidence presented herein suggests that LMIs are both replicating and scaling up, they do not appear to be contributing in any significant way to the translation of the idea of eating less meat into the mainstream. LMIs are being implemented, particularly in a

number of *public* places and sites such as individual schools, universities, town and city authorities and to a lesser extent in businesses. However, there is compelling evidence that considerable resistance exists to these innovative niche projects and the idea that they are trying to advance, as illustrated by the case of the attempt to introduce a meat-free day into the local authority canteens within Brighton and Hove and the catering outlets of the UK's House of Parliament. The process of translating the idea of eating less meat into mainstream settings is clearly highly contested, reflecting the more general point about the politics of transitions having 'uneven consequences for different stakeholders' (Lawhon and Murphy, 2011, p. 364). Discursively, this is apparent in all of the cases of resistance to LMIs where there is pronounced use of a language of 'imposition' and 'enforcement', 'bans' and 'denial', and most prominently of all the removal of choice. This is in stark opposition to LMI discourses of 'encouragement', 'empowerment', 'aspiration', 'fun' and, paradoxically, greater choice. The politics of diffusing the idea of eating less meat is also party political since the evidence demonstrates that LMI supporters are more likely to be from the political left, centre or green, and detractors from the political right. Ghent's city council, for example, was able to implement the city's MFD when under control of a Liberal-Labour coalition. That the party-political landscape matters when steps are taken by public bodies to implement an LMI supports Smith's (2006) assertion of the need to consider the relationship between an innovative niche and the existing mainstream regime when trying to analyse the progress of the former.

In understanding the politics of the transition to a more sustainable meat provisioning regime it is helpful to return to Smith's (2006) propositions about the character of innovative niches as either radical and/or reforming. LMIs are demanding the eating of *less* meat, making these niches much more 'reformist' in character when compared with the 'no meat' and 'no animal food' positions of the vegetarian and vegan movements respectively. However, niches, so Smith suggests, must combine successfully reformist and radical characteristics to make progress. The radical character of LMIs, it is suggested, has two closely interrelated dimensions. First, their emphasis on 'less' meat eating is a direct and unwelcome challenge to political-economic interests within the meat provisioning regime. It is also fundamentally at odds with dominant economic thinking and discourse that emphasizes 'more' or growth. Second, the perception among the actors who contest LMIs is that they represent an unacceptable form of social control, particularly when a meat-free day is viewed as an imposition and denial of choice (Lombardini and Lankoski, 2013). Removing choice is fundamentally antithetical to the neo-liberal market economies that operate in the contexts in which the evidence for contestation is particularly pronounced, e.g. in the UK. It is argued, therefore, that LMIs are actually far too radical in character to enable the translation of the idea of eating less meat into mainstream settings.

A further conclusion of this article is that while commercial organizations, the media and the state continue to promote high and unsustainable levels of meat consumption (Robinson Simon, 2013), the ability of the LMI niche to facilitate effectively the diffusion of an innovative social practice – eating less meat – is likely to be limited. Indeed, both the SDC, in their work on sustainable diets (2009), and the recently launched 'Eating Better' campaign (2013) in its promotion of 'eating less and better' meat, argue that the UK government has paid insufficient attention in policy to dietary change (and reducing the consumption of both meat and dairy products in particular) as a low cost contribution to reducing climate change

impacts, while at the same time accepting that the notion of eating less meat is a sensitive issue for politicians and the food and farming industry. And yet, it is this sensitivity, together with the fact that eating less meat is a new idea for most that suggests that LMIs need to be recognized as having an important role in raising awareness of and fostering debate about meat eating and the arguments for reducing overall levels of meat consumption. Furthermore, when implemented in specific sites such as schools and universities LMIs can help to familiarize their constituent communities with the *practices* of eating less meat, which includes of course eating more plant-based foods (Lombardini and Lankoski, 2013). What follows in terms of recommendations for future research is that attention needs to be given to the structural barriers and opportunities surrounding the meat-reduction agenda, e.g. in the form of policy and regulation as Vinnari (2008) and Robinson Simon (2013) begin to outline in their discussion about taxes on animal products and the modification of the agricultural subsidy regime to disincentivize unsustainable forms of livestock production. Research also needs to attend to the ways in which individuals and their meat-eating practices are being influenced through their engagement with LMIs. As Smith (2007) argues, niches and the mainstream regime are in a dialectical relationship, developments in each will be carried out with reference to the other, implying that any further work on LMIs must necessarily be conducted in relation to the mainstream meat provisioning regime.

Future research might also consider the engagement of LMIs with food producers and, in so doing, respond to another aspect of SNM that is concerned with a number of 'niche processes', including 'building social networks' (Seyfang and Haxeltine, 2012). For the most part it appears that LMIs have not engaged producers or involved building relationships between LMI participants and producers. Exceptions do exist, e.g. the acknowledgement of the role of more humane meat eating by Cape Town's MFD, but they are just this, exceptions within the broader landscape of efforts that are concerned, first and foremost, with reducing meat consumption rather than tackling production. In seeking to better engage producers in their activities, LMIs may need to consider making more of an attempt to differentiate within the category of 'meat', because as one of the major arguments for reducing meat consumption concerns resource use, some forms of meat production may actually compare quite favourably with other forms of protein production. This could be an opportunity for local producers of 'greener' and animal welfare friendly meat, not to mention the horticulture industry, and finds support, for example, in the US-based Environmental Working Group's argument to eat 'less, greener and healthier meat' (Hamerschlag, 2011, p. 19). In turn, this suggests that research needs to explore how new engagements with meat could be made in different, more compelling and inclusive ways than is currently being asserted by LMIs with their focus simply on 'less'.

## Notes

1. For some groups and individuals meat, and other animal foods, have always been and will remain controversial. Analysis herein is concerned with the 'conventional' food provisioning system in which eating meat is regarded as a dietary norm.
2. We include meat producing animals in this dimension of sustainability, although as discussed by Buller and Morris (2008) this positioning is by no means straightforward and agricultural animals, meat producing and otherwise, remain something of an awkward case for the discourses and practices of sustainable development.
3. Singapore has opted for 'Veggie Thursday' and Ghent's meat-free day is also on Thursday.

4. Sodexo is an institutional food provider who announced in January 2011 that it would support the 900 hospitals in its network with the materials to participate in Meatless Mondays Sodexo (2011). A few months later in April 2011 Sodexo extended this provision to more than 2,000 corporate and government client locations in North America, including Toyota, Northern Trust Bank and the US Department of the Interior (PRNewsWire, 2011).
5. A proposal that appears to have been shelved, providing further evidence of how an LMI has been 'scrapped due to unfavourable media and public reaction' (SDU, 2013).

## References

- ANIMAL AID (2011) *Meat-free Monday*. Published online: <<http://www.animalaid.org.uk/h/n/CAMPAIGNS/vegetarianism//2156/>>, accessed 18 May 2011.
- BAKKER, E. and DAGEVOS, H. (2012) Reducing meat consumption in today's consumer society: questioning the citizen-consumer gap, *Journal of Agricultural and Environmental Ethics*, 25, pp. 877–894.
- BEDDINGTON, J. (2010) Food security: contributions from science to a new and greener revolution, *Philosophical Transactions of the Royal Society B*, 365, pp. 61–71.
- BOCK, B. (2012) Social innovation and sustainability: how to disentangle the buzzword and its application in the field of agriculture and rural development, *Studies in Agricultural Economics*, 114, pp. 57–63.
- BRYMAN, A. (2012) *Social Research Methods*, 4th edn. Oxford: Oxford University Press.
- BULLER, H. and MORRIS, C. (2008) Beasts of a different burden: agricultural sustainability and farm animals, in: S. SEYMOUR, R. FISH, C. WATKINS and M. STEVEN (eds) *Transdisciplinary Perspectives on Sustainable Farmland Management*. Wallingford: CABI.
- CITY OF CAPETOWN (2013) *City Launches Meat-free Day*. Published online: <<http://www.capetown.gov.za/en/Pages/CitylaunchesMeat-freeDay.aspx>>, accessed 7 July 2013.
- CLOKE, P., COOK, I., CRANG, P., GOODWIN, M., PAINTER, J. and PHILO, C. (eds) (2004) *Practising Human Geography*. London: Sage Publications.
- CONNOLLY, K. (2013) Veggie day threatens to eat Greens as party support nosedives, *The Guardian*, 14 September, p. 35.
- DAILYMAILREPORTER (2011) Binmen rebel against 'meat-free Monday' after 'green' council ditch their bacon butties, *Mail Online*, 29 July. Published online: <<http://www.dailymail.co.uk/news/article-2020041/Binmen-rebel-meat-free-Monday-green-council-ditch-bacon-butties.html>>, accessed 29 July 2011.
- DEUTSCHE BANK RESEARCH (2009) *The Global Food Equation: Food Security in an Environment of Increasing Scarcity*. Deutsche Bank Research, Frankfurt am Main, Germany.
- D'SILVA, J. and TANSEY, G. (1999) *The Meat Business: Devouring a Hungry Planet*. London: Earthscan.
- D'SILVA, J. and WEBSTER, J. (2010) *The Meat Crisis: Developing More Sustainable Production and Consumption*. London: Earthscan.
- FIDDIS, N. (1991) *Meat: A Natural Symbol*. London: Routledge.
- FOODANDDRINKEUROPE.COM (2011) *Meat-free Drive Is Impacting Consumer Markets: Euromonitor*. Published online: <<http://www.foodanddrinkeurope.com/Products-Marketing/Meat-free-drive-is-impacting-consumer-markets-Euromonitor>>, accessed 1 November 2011.
- FOODWISE (2013a) *Meat Free Mondays*. Published online: <<http://foodwise.com.au/meat-free-Mondays>>, accessed 14 May 2013.
- FOODWISE (2013b) *What Is Meat Free Monday*. Published online: <<http://foodwise.com.au/meat-free-Mondays/what-is-meat-free-monday>>, accessed 14 May 2013.
- GARNETT, T., APPLEBY, M.C., BALMFORD, A., BATEMAN, I.J., BENTON, T.G., BLOOMER, P., BURLINGAME, B., DAWKINS, M., DOLAN, L., FRASER, D., HERRERO, M., HOFFMANN, I., SMITH, P., THORNTON, P.K., TOULMIN, C., VERMEULEN, S.J. and GODFRAY, H.C.J. (2013) Sustainable intensification in agriculture: premises and policies, *Science*, 341 (6141), pp. 33–34.
- GEELS, F. (2005) Processes and patterns in transitions and system innovations: refining the co-evolutionary multi-level perspective, *Technological Forecasting and Social Change*, 72, pp. 681–696.
- GEELS, F. and SCHOT, J. (2007) Typology of sociotechnical transition pathways, *Research Policy*, 36, pp. 399–417.
- HAMPSTEAD AND HIGHGATE EXPRESS (2013) *Eco-champion Wins NHS Approval over Meat-free Menus*. Published online: <[http://www.hamhigh.co.uk/news/eco\\_champion\\_wins\\_nhs\\_approval\\_over\\_meat\\_free\\_menus\\_1\\_630106](http://www.hamhigh.co.uk/news/eco_champion_wins_nhs_approval_over_meat_free_menus_1_630106)>, accessed 15 May 2013.
- HAMERSCHLAG, K. (2011) *Meat Eater's Guide to Climate Change and Health*. Washington, DC: Environmental Working Group. Published online: <[www.ewg.org/meateatersguide](http://www.ewg.org/meateatersguide)>, accessed 26 July 2011.
- HELSINGIN SANOMAT (2010) Helsinki schools could get weekly vegetarian food day, *Helsingin Sanomat*, 16 February. Published online: <<http://www.hs.fi/english/article/Helsinki+schools+could+get+weekly+vegetarian+food+day/1135252955520>>, accessed 20 May 2011.

- HICKMAN, L. (2009) Farmers show little appetite for anti-meat campaigns, *Green Living Blog*. Published online <<http://www.theguardian.com/environment/ethicallivingblog/2009/jul/20/meat-free-debate>>.
- JOHNSTON, J. (2008) The citizen-consumer hybrid: ideological tensions and the case of Whole Foods Market, *Theory and Society*, 37, pp. 229–270.
- KEMP, R., SCHOT, J. and HOOGMA, R. (1998) Regime shifts to sustainability through processes of niche formation: the approach of strategic niche management, *Technology Analysis and Strategic Management*, 10, pp. 175–195.
- KIRWAN, J., ILBERY, B., MAYE, D. and CAREY, J. (2013) Grassroots social innovations and food localisation: an investigation of the Local Food programme in England, *Global Environmental Change*, 23(5), pp. 830–837.
- LAWHON, M. and MURPHY, J.T. (2011) Socio-technical regimes and sustainability transitions: insights from political ecology, *Progress in Human Geography*, 36, pp. 354–378.
- LEE, C. (CARMEN\_CEBS) (2011) Mar. 20, 2011: Great American Meat Out Day recognized by SF Board of Supervisors [newsgroup article], *SFVEg* <[sfveg@yahoo.com](mailto:sfveg@yahoo.com)>, 23 March.
- LOMBARDINI, C. and LANKOSKI, L. (2013) Forced choice restriction in promoting sustainable food consumption: intended and unintended effects of the mandatory vegetarian day in Helsinki schools, *Journal of Consumer Policy*, 36, pp. 159–178.
- MAURER, D. (2002) *Vegetarianism: Movement or Moment?* Philadelphia: Temple University Press.
- MAYE, D. and KIRWAN, J. (2010) *Alternative Food Networks*. Published online <<http://www.isa-sociology.org/publ/sociopedia-isa/>>, accessed 5 January 2011.
- MCCARTNEY, P. (2009) *Meat Free Monday: The Facts*. Published online: <<http://www.paulmccartney.com/news-blogs/news/meat-free-monday-the-facts>>, accessed 4 September 2013.
- McMICHAEL, A.J., POWLES, J.W., BUTLER, C.D. and UAUY, R. (2007) Food, livestock production, energy, climate change and health, *The Lancet*, 370 (9594), pp. 1253–1263.
- MEATINFO.CO.UK (2009) *NHS to Cut Meat from Hospital Menus*. Published online: <[http://www.meatinfo.co.uk/news/archivestory.php/aid/1550/NHS\\_to\\_cut\\_meat\\_from\\_hospital\\_menus.html](http://www.meatinfo.co.uk/news/archivestory.php/aid/1550/NHS_to_cut_meat_from_hospital_menus.html)>, accessed 15 May 2013.
- MEATLESS MONDAY (2013) *About Us*. Published online: <<http://www.meatlessmonday.com/about-us>>, accessed 3 July 2013.
- MONDAY CAMPAIGNS (2013) *About*. Published online: <<http://www.mondaycampaigns.org/about>>, accessed 11 September 2013.
- MORRIS, C. and KIRWAN, J. (2006) Vegetarians: uninvited, uncomfortable or special guests at the table of the alternative food economy?, *Sociologia Ruralis*, 46, pp. 192–213.
- MORRIS, C. and KIRWAN, J. (2007) Locating diet within the alternative food economy: the case of vegetarianism, in: D. MAYE, L. HOLLOWAY and M. KNEAFSEY (eds) *Alternative Food Geographies: Representation and Practice*. Oxford: Elsevier, pp. 133–145.
- NEUMEIER, S. (2012) Why do social innovations in rural development matter and should they be considered more seriously in rural development research? Proposal for a stronger focus on social innovations in rural development research, *Sociologia Ruralis*, 52, pp. 48–69.
- PETA EDUCATION (2013) *Aims of the Project*. Published online: <<http://www.petaf.org.uk/mfm-aim.asp>>, accessed 14 May 2013.
- POLLACK, M. (2010) *City Launches Meat-free Day*. Published online: <<http://www.capetown.gov.za/en/Pages/CitylaunchesMeat-freeDay.aspx>>, accessed 18 May 2011.
- PRNEWSWIRE (2011) *Sodexo More Than Triples Reach of its Meatless Monday Offer*. Published online: <<http://www.prnewswire.com/news-releases/sodexo-more-than-triples-reach-of-its-meatless-monday-offer-120055684.html>>.
- RENTING, H., SCHERMER, M. and ROSSI, A. (2012) Building food democracy: exploring civic food networks and newly emerging forms of food citizenship, *International Journal of Sociology of Agriculture and Food*, 19, pp. 289–307.
- RIP, A. and KEMP, R. (1998) Technological Change, in: S. RAYNER and E. MALONE (eds) *Human Choice and Climate Change*. Columbus, OH: Batelle Press, pp. 327–399.
- ROBINSON SIMON, D. (2013) *Meatonomics*. San Francisco, CA: Conari Press.
- SAGE, C. (2014) Making and unmaking meat: cultural boundaries, environmental thresholds and dietary transgressions, in: M. GOODMAN and C. SAGE (eds) *Food Transgressions: Making Sense of Contemporary Food Politics*. Farnham: Ashgate, pp. 205–226.
- SCHOT, J. and GEELS, F. (2008) Strategic niche management and sustainable innovation journeys: theory, findings, research agenda, and policy, *Technology Analysis and Strategic Management*, 20, pp. 537–554.
- SCOTT-THOMAS, C. (2011) *Awareness of the 'Meatless Monday' Campaign Has Reached More Than Half of Americans, According to an Online Tracking Survey Conducted by FGI Research*. Published online <<http://www.meatprocess.com/content/view/print/380189>>, accessed 21 June 2011].

- SDC (SUSTAINABLE DEVELOPMENT COMMISSION) (2009) *Setting the Table: Advice to Government on Priority Elements of Sustainable Diets*. London: SDC.
- SDU (SUSTAINABLE DEVELOPMENT UNIT) (2013) *Is the NHS Still Planning to Reduce the Amount of Meat on Hospital Menus as Proposed in the 2009 Carbon Reduction Strategy*. Published online: <<http://www.sdu.nhs.uk/resources/faqs/54/is-the-nhs-still-planning-to-reduce-the-amount-of-meat-on-hospital-menus-as-proposed-in-the-2009-carbon>>, accessed 15 May 2013.
- SEYFANG, G. and HAXELTINE, A. (2012) Growing grassroots innovations: exploring the role of community-based initiatives in governing sustainable energy transitions, *Environment and Planning C: Government and Policy*, 30, pp. 381–400.
- SEYFANG, G. and SMITH, A. (2007). Grassroots innovations for sustainable development: towards a new research and policy agenda, *Environmental Politics*, 16, pp. 584–603.
- SMITH, A. (2006) Green niches in sustainable development: the case of organic food in the United Kingdom, *Environment and Planning C: Government and Policy*, 24, pp. 439–458.
- SMITH, A. (2007) Translating sustainabilities between green niches and socio-technical regimes, *Technology Analysis and Strategic Management*, 19, pp. 427–450.
- SODEXO (2011) *Sodexo Offers Meatless Monday Option to Promote Health and Wellness*. Published online: <<http://www.sodexousa.com/us/en/newsroom/press/press11/meatlessmonday.asp>>.
- STEINFELD, H., GERBER, P., WASSENAAR, T., CASTEL, V., ROSALES, M. and HAAN, C. DE (2006) *Livestock's Long Shadow: Environmental Issues and Options*. Rome: Food and Agriculture Organization.
- TAYLOR, M. (2014) 39% of Americans are eating less meat, *Prevention*, January. Published online: <<http://www.prevention.com/food/smart-shopping/39-americans-are-eating-less-meat>>, accessed 25 April 2014.
- THELWALL, M. (2008). Quantitative comparisons of search engine results, *Journal of the American Society for Information Science and Technology*, 59(11), pp. 1702–1710.
- VANHONACKER, F., VAN LOO, E.J., GELLYNCK, X. and VERBEKE, W. (2013) Flemish consumer attitudes towards more sustainable food choices, *Appetite*, 62, pp. 7–16.
- VEGGIE THURSDAY (2013) *About Us*. Published online: <<http://www.veggiethursday.sg>>, accessed 15 April 2013.
- VINNARI, M. (2008) The future of meat consumption: expert views from Finland, *Technology Forecasting and Social Change*, 75, pp. 893–904.
- VINNARI, M. and TAPIO, P. (2012) Sustainability of diets: from concepts to governance, *Ecological Economics*, 74, pp. 46–54.
- WEATHERELL, C., TREGEAR, A. and ALLINSON, J. (2003) In search of the concerned consumer: UK public perceptions of food, farming and buying local, *Journal of Rural Studies*, 19, pp. 233–244.
- WEAVER, D.A. and BIMBER, B. (2008) Finding news stories: a comparison of searches using LexiNexis and Google News, *Journalism and Mass Communication Quarterly*, 85(3), pp. 515–530.
- WISKERKE, J. (2003) On promising niches and constraining sociotechnical regimes: the case of Dutch wheat and bread, *Environment and Planning A*, 35, pp. 429–448.
- HOUSE OF COMMONS CATERING AND RETAIL SERVICES; ADMINISTRATION COMMITTEE (2011) *Written Evidence Submitted by Caroline Lucas MP*. Published online: <<http://www.publications.parliament.uk/pa/cm201012/cmselect/cmadmin/560/560vw14.htm>>, accessed 12 May 2011.
- HOUSE OF COMMONS EARLY DAY MOTION (2010) *Meat-free Mondays Campaign*, Early Day Motion 669, 6 September. Published online: <<http://www.parliament.uk/edm/2010-12/669>>, accessed 12 May 2011.
- YPTE (YOUNG PEOPLE'S TRUST FOR THE ENVIRONMENT) (2013) *Meat-free Mondays*. Published online: <<http://www.ypte.org.uk/environmental/meat-free-Mondays/209>>, accessed 14 May 2013.



## Meanings of Local Food in Danish Print Media: From Marginal to Mainstream

SAFANIA NORMANN ERIKSEN

*[Paper first received, 30 January 2014; in final form, 23 June 2014]*

**Abstract.** The purpose of this article is to find empirical evidence that can verify the seemingly new and growing interest in local food in Denmark, and shed light on what meanings the concept of *local food* holds in Danish print media. A content analysis of Danish print media is undertaken of articles reporting on local food over a 10-year period. A total of 993 articles are collected from national, regional and local newspapers as well as trade journals and magazines. Incorporating print media as agents in the construction of meanings of local food is a relatively understudied field of research. The article finds six major themes, which are central to the understanding of local food in Danish print media, namely 'local food networks', 'food values', 'food system', 'food tourism', 'food events' and 'local food in supermarkets'. It concludes that there are important differences between print media sources; nationwide dailies portray national imaginaries, apart from local imaginaries portrayed in regional dailies and local weeklies. This said, local food cannot be understood without reference to the local scale. However, at the same time, both culinary globalization and culinary nationalism have resulted in the strong push for local food. Keeping with this, it is argued that the increasing interest in local food by mainstream supermarkets blurs the lines between the marginal and mainstream. Thus, local food can be understood both as flow and friction between dualisms of local–global and marginal–mainstream.

### Introduction

The study of food can be motivated from many different perspectives. The one chosen here is to assess whether it is possible to find any empirical evidence that could verify the seemingly new and growing interest in local food in Denmark, and shed light on what meanings the concept of *local food* holds in Danish print media. Dominated by a highly industrialized, export-oriented agriculture, Denmark provides an especially instructive case regarding the meaning of local food.

For decades, Danish food culture has generally been assigned a low measure of culinary self-consciousness (DeSoucey, 2010). Studies have found that Danes are not particularly interested in food and do not have a highly developed food culture (Askegaard and Madsen, 1995). Others have claimed that Danish cuisine is an oxymoron (Christensen et al., 2006). However, cuisines are never static, as Bentley (2004)

Safania Normann Eriksen is Ph.D. Candidate at the Department of Communication, Business and Information Technologies, Roskilde University, Universitetsvej 1, DK – 4000 Roskilde, Denmark; email: <safania@ruc.dk>.

points out, but are constantly evolving and are reshaped. In recent years, Denmark (along with the other Scandinavian countries) has become recognized for the new Nordic cuisine (Byrkjeflot et al., 2013), which some argue has reinvented Nordic, and thereby Danish, culinary traditions (Manniche and Larsen, 2013). Against this background, the study of food in Denmark is experiencing a significant growth in scope. However, compared with the US and the UK (see Hinrichs and Charles, 2012) research on local food in Denmark is currently lacking. This article seeks to address this gap by investigating the ways in which local food is represented in Danish print media. In other words, it looks at the way meanings are constructed through texts (Tonkiss, 1998). There are many complex and conflicting meanings tied up in the discourse of local food (see Ostrom, 2006; Futamura, 2007; Fonte, 2008). Local food means different things to different people in different contexts (Eriksen, 2013). We know that 'food conveys meaning as well as calories and nutrients' (Bentley, 2004, p. 215). This article will further this statement by examining *which* meanings. That is, meanings refer to the particular ways of talking about and understanding local food. Hence, the article should be seen as a first attempt and a basis for further research.

A content analysis of Danish print media is undertaken of articles reporting on local food. It is based on an examination of 993 newspaper articles published from 2003 to 2013. The focus is on entries from this time frame to ensure that the findings are contemporary and relevant. Incorporating print media as agents in the construction of meanings of local food is a relatively understudied field of research. Yet there has been some work in the area of local food and discourse analysis (see Johnston et al., 2009; Germov et al., 2011; Kurtz et al., 2013); however, not in a Danish context. The underlying assumption is that focusing on texts about local food can contribute with new insights. Clearly local food has always existed. From this point of view, all food is by definition *local* (Montanari, 2006). Yet the *re-localization* (Hinrichs, 2003),<sup>1</sup> branding and commercial promotion associated with contemporary local food seems to be a new feature in Denmark. This repositioning is interesting in terms of understanding and theorizing about the dynamics of these new patterns of place-based growing, selling and eating.

The article proceeds as follows. The next section gives a brief review of the different meanings local food holds in the food studies literature. The third section outlines the research method and empirical data utilized for the research. The fourth section presents the main findings from the content analysis by descriptively tracing major themes on local food in Danish print media. The fifth section discusses the findings informed by theoretical perspectives. Finally, some concluding remarks.

## Review of the Literature

This section directs the attention to the literature on local food originating primarily in North America and Western Europe. Whereas the US literature typically has a strong normative commitment to food-related social movements (located under different headings, cf. Feagan, 2007, p. 24) contesting the hegemony of the conventional industrial food system, the European literature tends to focus on rural development (see Goodman and Goodman, 2009; Hinrichs and Charles, 2012). Drawing on a range of sources, the following reviews the many complex and conflicting meanings tied up in the discourse of local food. Before moving onto this, it is, as Pearson et al. (2011) stress, important to recognize that there is no widely accepted definition of what constitutes local food.

Some scholars define local food 'on the basis of the distance that the food travels from production to consumption' (Pearson et al., 2011, p. 888). For their study, Rose et al. (2008, p. 271) define local food as 'produced within 100 miles of an individual's residence'. Martinez et al. (2010, p. iii) point out that definitions 'related to geographic distance between production and sales vary by regions, companies, consumers, and local food markets'. Besides distance, most definitions are based on political boundaries such as a region in a country (Edwards-Jones, 2010). For the purpose of their analysis, Schönhart et al. (2008, p. 244) follow a narrow definition of local food 'in which all activities of the food supply chain – from agricultural food production to consumption – are located within the same geographic region'. Also Bosona and Gebresenbet (2011, p. 294) refer to local food from a geographical perspective; that is, food produced, retailed and consumed in a specific area. Fonte and Papadopoulos (2010) associate local food not only with geographical locations, but also with particular communities, histories and institutions.

Other scholars, such as Gracia et al. (2012), point out that local food has a social dimension, which refers to the social relationships between the actors, i.e. consumers and producers, in the local food system. Reflecting this understanding of local food, scholars have examined the social ties fostered by relational proximity between producers and consumers (see Bowen and Mutersbaugh, 2014). Futamura (2007, p. 222) argues that local food not only refers to commodities produced in proximate sites, but 'also implies that consumers believe that locally grown food products are likely to present desired qualities'. Localness is often associated with specialty, traditional and/or quality foods (Morris and Buller, 2003, p. 560). Delind (2006) claims that there are two major arguments concerning the value or virtue inherent in local food: 1. local food as a development (or redevelopment) tool and, 2. local food as a vehicle for personal improvement. According to the second view, local food is seen as fresher, riper and healthier than its long-distance counterpart. Blake et al. (2010, p. 411) argue that the diverse understandings of local food are unified by the 'association of "local" with trust, shared norms and values, heritage, quality, stewardship, familiarity, simplicity, artisanal and community, which construct an alternative to the industrialized food systems'. Ostrom (2006) points out that local food is closely intertwined with positive associations. Along these lines, Born and Purcell (2006) warn against the *local trap*, the tendency to assume something inherently good about the local scale. They argue that there is nothing inherent about any scale.

Ostrom (2006) found that while there were many complex variations in the way local food is constructed, there seems to be consensus about the relevance of the term. What all of these different meanings have in common is a sense that local food is values based, geographically and relationally determined and that proximity is important (see Eriksen, 2013). This said, there is still a need to continue to uncover the nuances in meanings of local food. The intent of this article is to further the conceptual development of local food by extending the debate by utilizing a content analysis of Danish print media's usage of the term local food.

## Method

This article reports findings from an inductive study of an explorative nature, in the sense that the aim is to look for patterns in the data material of what meanings of the concept 'local food' are developing in Denmark. The article uses a content analysis methodology to reveal the way meanings of local food are produced and repro-

duced in Danish print media. In search of meanings of local food, a content analysis of 993 articles is conducted.

Content analysis is one of numerous methods to analyse texts and has a long history in research within communication, sociology, psychology, business, etc. Content analysis is well-suited to analyse the multifaceted characteristics of local food. An advantage of the method is that large volumes of textual data and different textual sources can be dealt with. Content analysis is a research method used for making replicable and valid inferences from texts to their contexts (Krippendorff, 2012). In this article, content analysis is defined as 'the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns' (Hsieh and Shannon, 2005, p. 1278). There are various techniques that make up the research methodology of content analysis. This article takes a summative approach to qualitative content analysis (*ibid.*). Qualitative content analysis has much in common with discourse analysis, which provides insights into the way texts both help to shape and reproduce meanings and forms of knowledge (Tonkiss, 2004). The summative approach involves counting keywords and interpreting their contextual meaning. The initial part of the summative approach is quantitative, but its goal is to explore the qualitative usage of keywords in an inductive manner. Borrowing from Krippendorff (2012, p. 22) 'all reading of texts is qualitative, even when certain characteristics of a text are later converted into numbers'. The summative approach to qualitative content analysis starts with quantification and moves on to interpretation. The purpose of the quantification is to identify and count the frequency of codes in the textual material (Hsieh and Shannon, 2005). A central aspect is that the many codes are classified into fewer categories (Weber, 1990). Categories are themes that are expressed in the text or derived from text through analysis. Credibility of research findings requires that the researcher can form categories that reflect the subject of study in a reliable manner.

The data cover the 10-year period from 2003 to 2013. The chosen time period was based on estimation that a 10-year period would be sufficient to reveal enough material for the study. Data consists of texts, namely collected news articles on local food in Danish. The data are accumulated from Infomedia, the largest Danish electronic media database of full-text media sources containing over 50 million articles over the past 20 years. Collected data include the following sources; nationwide dailies, regional dailies, local weeklies and trade journals and magazines (Infomedia, 2014). To manage the amount of data, the search is limited to print media articles, and so it does not include cookbooks, web sources, Radio and TV spots, social media sources or the like. The keywords *local food* (lokal mad) and *local food products* (lokale fødevarer) facilitated the search. In the Danish language there are two terms for local food: 1. *lokal mad*, which directly can be translated to local food; and 2. *lokale fødevarer*, which can be translated to local food products. In the following, the term local food will be used to refer to both terms unless otherwise specified.

Between 2003 and 2013, Infomedia has a total of 1,610 articles containing the keyword *local food*. The number of articles on *local food* makes up about 1% of the total number of articles on *food* in Infomedia over the whole period.<sup>2</sup> To compare, articles on *organic food* makes up about 5% of the total amount of articles in Infomedia on *food*. In comparison, the previous 10 years, from 1993 to 2003, show that whereas *local food* makes up about 0% of all articles on *food* in Infomedia, articles on *organic food* are somewhat constant (about 5%). Figure 1 graphically illustrates an upward movement in articles containing the keyword *local food* from 2003 to 2013. This de-

velopment is consistent with other discussions about the new Nordic cuisine (e.g. Byrkjeflot et al., 2013). Note also the increase despite the recession. The interest in local food is growing steadily during the 2008–2011 financial crisis.

Figure 1 demonstrates the total sample. The rationale for delimitation aims to produce a sample that, in line with Tonkiss (2004), is relevant to the research problem, representative of the field of interest and manageable to analyse in detail. As such, it is important to note that not all references on local food over the sampling period are about local food in Denmark, which is the focus of this article. In fact, about half of the articles on *local food* (lokal mad) are related to traveling, tourism and eating experiences abroad. This is not the case in regard to the articles on *local food products* (lokale fødevarer). It is beyond the scope of this article to examine the

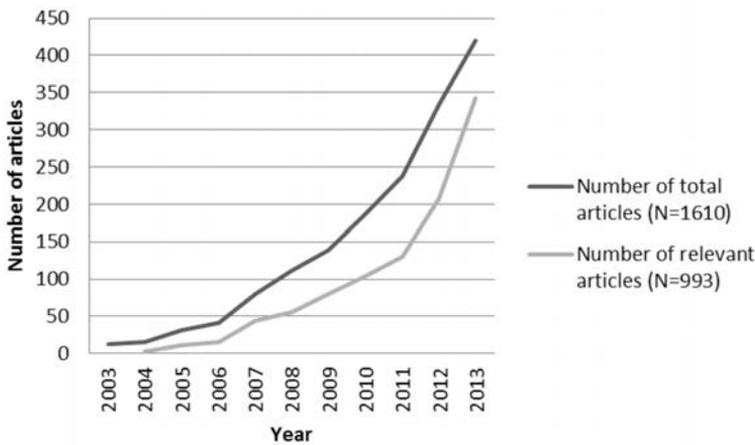


Figure 1. The number of total and relevant retrieved articles with 'local food' and 'local food products' in it from 2003–2013.  
 Source: Infomedia, December 2013.

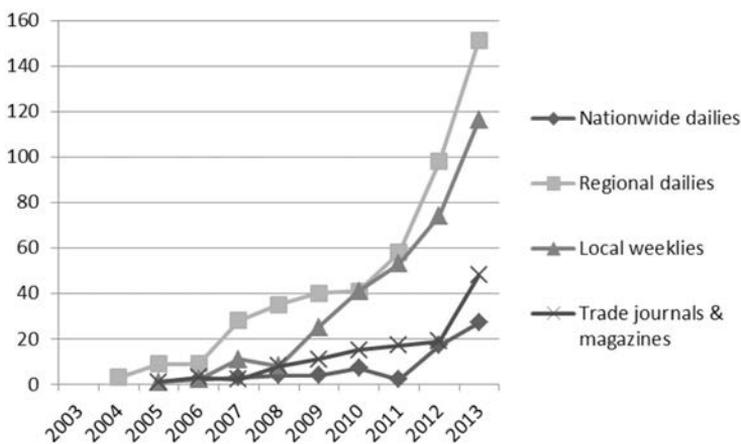


Figure 2. Relevant retrieved articles divided on source from 2003–2013.  
 Source: Infomedia, December 2013.

role tourism plays in the reproduction and expansion of ideas about local food in a non-Danish context. As such these articles are excluded. Note also that articles with identical content and date published in different sources are only counted once. Taking this into account, the total number of articles is reduced to 993 relevant articles. As shown in Figure 1 there are no relevant articles retrieved from 2003.

Figure 2 shows the number of relevant articles divided by source: nationwide dailies, regional dailies, local weeklies, and trade journals and magazines. As the figure demonstrates, regional dailies and local weeklies make up the largest amount of articles. Print media convey information on a mass scale. The national and regional dailies are read every week by 84% of the Danish population and play a crucial role in news coverage in Denmark (Minke, 2009). The local weeklies are read by about 80% of the population every week (*ibid.*). They are considered relevant because of the hyper-local i.e. geographically based and community-oriented (Metzgar et al., 2011) content. Trade journals and magazines are periodicals containing news and items of interest concerning a particular topic, trade or industry. This raises the question whether the article sources portray different aspects of local food, e.g. to what extent are the ways that nationwide dailies talk about local food different from the ways local weeklies talk about local food? This aspect will be addressed later. However, first the coding of the data needs to be clarified.

The data analysis in this article begins with identifying codes. Frequency counts for each identified code were calculated, and the source was also identified. The aim was to understand the frequency of codes used to refer to local food but also to understand the underlying contexts for the use of the concept, e.g. by reporting how the usage differed by source. Counting was used to identify patterns in the data, and it allowed for interpretation of the context associated with the concept of local food. The attempt was to explore the range of meanings related to local food. Within each article, the sentences containing the term 'local food' and/or 'local food products' were highlighted and used to determine central codes. From the textual content, the researcher identified 39 codes, see Table 1.

Compiling the codes into central categories transforms the 39 codes into six categories. This is illustrated in Table 2. Classification is used to group elements with common traits, as well as to distinguish between elements considered to differ in one or more central aspects (Bowker and Star, 1999) (see also Bailey, 1994, pp. 12–16, who lists both advantages and disadvantages of classification). Codes classified in the same category are presumed to have similar meanings. The identification of the categories is subjective and the result of an analysis of how they relate with the codes. The meaning thereof remains open to interpretation. The categories are not mutually exclusive, and specific codes can fall into more than one of the six categories. However, this categorization is useful when seeking to draw a representative sample of codes for more detailed analysis.

Note that more than one code, from any of the categories, may appear in each article. The article now turns to the empirical findings in order to explore what meanings of local food are developing in Danish print media.

## Findings

This section provides a summary of the main findings from the content analysis. Given the large amount of codes ( $n=39$ ), the findings presented are related to the

**Table 1.** The 39 codes in alphabetical order.

1. Access	2. Branding	3. Chef
4. Direct relations	5. E-commerce	6. Financial crisis
7. Event where local food is part	8. Experience economy	9. Farmers market
10. Farm shops	11. Food trend	12. Food tourism
13. Food values	14. Funding	15. Grassroots movement (social movement)
16. Local development	17. Local food and art	18. Local food and culture
19. Local food event	20. Local food in supermarkets	21. Local food and kids (youth)
22. Local food labelling (certification)	23. Local food on TV	24. Food policy
25. Local food price	26. Local food project	27. Local food resource/ food product
28. Local food system	29. Local food network	30. Local food production/ distribution
31. New Nordic cuisine	32. Organic food	33. Project where local food is a part
34. Public institutions	35. Public/private canteens	36. Public procurement
37. Recipes/ food writer (blogging)	38. Restaurant	39. Small and medium sized enterprises (SMEs)

**Table 2.** Overview of the main categories and the related codes.

Categories	Codes
Actors	Chef; Grassroots movement (social movement); Local food and kids (youth); <i>Local food network</i> ; Recipes/ food writer (blogger); Restaurant; SMEs
Food culture	Food trend; <i>Food values</i> ; Local food and art; Local food and culture; Local food on TV; New Nordic Cuisine; Organic food
Food issues	Financial crisis; <i>Food system</i> ; Food policy; Local food labelling (certification); Price; Public/private canteens; Public institutions; Public procurement;
Local development	Experience economy; Local development; <i>Food tourism</i> ; Funding
Events and projects	Event where food is part; <i>Food event</i> ; Food project; Project of which food is a part
Marketing and Sales	Access; Branding and marketing; E-commerce; Farmers market; Farm shops; <i>Local food in supermarkets</i> ; Local food production/ distribution; Local food resource/ products.

most frequently used code across sources within each of the six categories (c.f. the codes in *italics* in Table 2), which involve different but related meanings of local food.

The category *Actor* refers to any agent, perceptible at the level of discourse, who plays a part in a text (Buchanan, 2010). Based on the content analysis seven codes or groups of actors were identified. It appears that the most frequently used code across sources in this category is *local food networks*, which refers to the social connection of actors within specific regional geographies. Articles with content on *local food networks* appear primarily in regional dailies, local weeklies and trade journals and magazines. In contrast, nationwide dailies more often portray celebrity *chefs*. Further content analysis shows that the number of articles referring to local food networks increased rapidly around 2008 and continued to grow throughout 2013. Moreover, about 50 different local food networks are mentioned in the articles. The networks are geographically spread all over Denmark, but typically anchored locally. They include producer-controlled networks (usually named after the specific municipality or region they are located in) and consumer-controlled networks (usually named

after the city they are located in). A couple of the networks are national (named after the country) in the sense that they include food producers or networks from all over Denmark.

The category *Food Culture* refers to a myriad of facets (cf. Table 2). Based on the content analysis, it appears that the most frequently used code in this category is *food values*. Food values are here understood, not merely as nutritional value, but also as a matter of symbolic value such as positive associations, ethical considerations and qualitative meanings of local food. Articles referring to *food values* appear across sources. Additionally, trade journals and magazines have a high frequency in references to *organic food* and nationwide dailies to new Nordic cuisine. There are a number of different values attached to local food. In general these are health, reduced CO<sub>2</sub> emissions from transport, quality, and sustainability, but also values such as authenticity, food security and safety, taste, origin and season are mentioned throughout the articles. References to values associated with local food frequently highlight that consumers want food with meaning. Organic food and local food are portrayed as good examples of this. Consumers want quality food, and are willing to pay more for a good story, less environmental impact and exciting taste experiences. At the same time, the interest in quality food is described as increasing in recent years along with the interests in healthy and local food.

The category *Food Issues* spans multiple subjects and includes a number of codes. Based on the content analysis, it appears that the most frequently used code in this category is *food system*. Articles referring to *food system* appear broadly across sources. Further content analysis shows that local food is considered a new ideology about better food. It is seen as an important component to stop the monopolization of food production, which is controlled by multinational companies and cause a standardization of food cultures. Politicians must support small, local food producers. In the globalized market the large food giants have huge political power. Bureaucracy for example makes it expensive to be small. Moreover, there is a greater interest in local speciality products as a backlash to discount the wave. It is a development that parts of the retail market are supporting. The world has become so globalized that many begin to 'return' to the local.

The category *Local Development* includes a number of codes. Based on the content analysis, it appears that the most frequently used code in this category is *food tourism*. Articles referring to *food tourism* appear across sources. The articles generally support the notion that a focus on local food and small-scale food production attracts tourists (from home and abroad) and makes it more appealing to live and work in the local area. Most articles emphasize that tourism must be taken seriously as a profit- and job-creating business in rural areas. The same applies to local food. So, it appears that tourism and local food should come together to promote the tangible and edible products together with abstract products, such as destinations. Food tourism is, among other things, about developing 'experiential attractions', which can strengthen a region's profile – for example, through local food. Danish regions and municipalities use local food to tell positive stories about the area. The way to a good reputation, it is claimed, is through the stomach. Overall, the goal is to create local development.

The category *Events and Projects* refers to any occurrence (event), which may be recurrent, annually or more frequently, or may be a 'one-off' (Beaver, 2012), or a set of activities (project) intended to produce a specific output, which has a definite beginning and end (Law, 2009). Based on the content analysis, it appears that the most

frequently used code in this category is *food event*. Articles referring to *food events* appear primarily in regional dailies and local weeklies. The main food events described in the articles are geographically based food markets and food festivals. The majority of appearances cover 2011–2013. The food markets are generally described as opportunities to present food produced in and around a specific region, but generally spread across the country. Food markets and food festivals are recognized usually as unique opportunities for bringing together small producers to promote local food products associated with the local area. Other central food events are cooking competitions between chefs, communal eating and soup kitchens, as well as meetings and conferences where local food is served; appearances cover the 2010–2013 period. The food events are used as a means to promote local foods through local dishes made from local produce.

The category *Marketing and Sales* includes a number of codes. Based on the content analysis, it appears that the most frequently used code in this category is *local food in supermarkets*. Articles containing the code *local food in supermarkets* appear across sources. The number of articles referring to local food in supermarkets increases rapidly in 2013. A common characteristic is the assumption that consumer demand for local food is growing. Some of the Danish supermarket chains are using this trend to sell local food in their local stores. It is not new that supermarkets sell local food. What is new, however, is that it is becoming more formalized and visible that they are doing so. The most frequently mentioned case is Coop Denmark,<sup>3</sup> and more specifically the supermarket chain SuperBrugsen, which in 2013 launched a campaign to systematize its efforts to sell more local food in its local shops. The campaign is part of an overall strategy by Coop Denmark to strengthen the chain's local profile. The goal is to become the Danish local food supermarket, partly because in this way it can differentiate itself from the larger international chains, and partly because it wants to meet an emerging demand for more unique food products.

## Discussion

To recapitulate, the findings paint a broad picture that integrate a diversity of meanings and captures how Danish print media portray local food over the sampling period. Six major codes or themes have been identified: local food networks, food values, food system, food tourism, food events and local food in supermarkets. In reflecting on what local food means, this section is restricted to these themes informed by theoretical perspectives on local food. Thus, it travels back and forth between findings and theory.

### *Local Food Networks: New Food Initiatives*

The findings suggest that when local food is referred to in Danish print media, there is a tendency to associate it with local food networks. The findings show an increase in the reporting on local food networks in Denmark around 2008, which continued to grow throughout the sampling period. Local food networks are presented generally, in this context, as effective tools to ease the availability, affordability and accessibility of local food. The types of networks referred to most frequently are producer-controlled networks and less frequently consumer-controlled networks. The consumer networks are typically member-based and -driven food cooperatives

that offer locally produced organic fruit and vegetables. They support fair and direct trade between consumers, local growers and other suppliers. The producer networks usually consist of small food producers – typically farmers. The general aim is to establish a joint marketing system to promote the local food. This is consistent with an extensive academic literature, which has developed since the 1990s, about alternative<sup>4</sup> food networks (AFNs) or ‘short food supply chains’ (see Marsden et al., 2000, p. 426) transforming modern food provisioning across Europe, North America and many other parts of the world (e.g. Renting et al., 2003; Seyfang, 2006; Feagan, 2007; Tregear, 2011; Kneafsey et al., 2013). Much of this research suggests that AFNs mark the transition away from the conventional industrial food system that distances and detaches food production from food consumption. This aspect, however, is not explicit in the way Danish print media generally portray local food networks, i.e. as producer networks. Yet articles referring to consumer networks emphasize aspects such as reconnecting consumers and producers, non-profit, reducing food waste, and distance from farm to table.

The meanings Danish print media generally associate with local food networks correspond to the divergence in North American and European literature (Goodman and Goodman, 2009; Hinrichs and Charles, 2012). Whereas the US literature typically assesses AFNs ‘in terms of their oppositional status and “transformative potential” to deliver progressive systemic change in food provisioning’, the European literature assesses it as catalysts of revitalized rural economies (Goodman and Goodman, 2009, p. 11). The findings indicate that local food networks are seen as a key element in rural development. However, it appears that when compared to other parts of Europe, local food networks in Denmark are not as common as, for instance, in the UK, Italy or France. A reason might be that the ‘alternative’ food sector in Denmark is relatively small. Denmark is dominated by long-standing export-oriented agriculture, where food is provided by supermarkets. There simply is a limited outlet for a local food production.

This said, food networks per se are not a new phenomenon in Denmark. Network cooperation spread in rural Denmark prior to World War II, where the agricultural co-operative movement (*Andelsbevægelsen*) was strong (Chloupkova et al., 2003). The number of cooperatives declined around 1960 and the following decade (Svendsen and Svendsen, 2000). From the 1970s onwards, organic food networks evolved in Denmark. However, by the 1990s these networks became an integrated part of the mainstream food system (Kjeldsen and Ingemann, 2009). Nonetheless, by the turn of the twenty-first century, new organic food networks entered the scene, especially farm shops, speciality stores, box schemes, community supported agriculture (CSA), food co-ops. Along these lines, Manniche and Larsen (2013) point out that several regions in Denmark have established small-scale production of regional, organic or other premium-priced, high-quality foods. This has not received much academic attention. A possible explanation might be the perceived insignificance of this development – for example, the total turnover of organic food networks is estimated at less than 1% of the total Danish food market (Kjeldsen, 2005) – another explanation might be that it is difficult to point out the sites and scales at which new food initiatives emerge. For example, when observing the national scale, Kjeldsen et al. (2013) were unsuccessful in identifying significant indications of new food initiatives. However, as they demonstrate, observing trends on the local scale point in the opposite direction. The content analysis shows a similar pattern when focusing on

print media sources: nationwide dailies do not, to the same extent as regional dailies and local weeklies, paint the full picture of local food initiatives in Denmark.

#### *Food Values: Valorizing Local Food*

Another relevant finding is that there are clear connections made between local food and value-laden virtues such as CO<sub>2</sub> reduction, improved health, fresh produce in season, and good quality. This corresponds with the literature on local food (see e.g. Ostrom, 2006; Eriksen, 2013). Dagevos and Van Ophem (2013, pp. 1476–1479) differentiate between four elements that constitute food values: 1. product value (nutritional value or sensory properties, e.g. texture, colour, freshness, taste and flavour), 2. process value (consumer concerns, e.g. animal welfare, free-range livestock products, environmental pollution, genetic modification, chemicals, food miles or fair trade issues involved in how food is produced or traded and farmed animals are treated); 3. location value (physical setting, e.g. spaciousness, variety of food products, etc., and experience characteristics, e.g. entourage, entertainment); and 4. emotional value (experience, entertainment, (self-)indulgence, identity, or the story behind products or brands). The reporting of local food in Danish print media refers broadly to all four aspects. As Sims (2009, p. 328) points out, local food is associated with a host of values ‘and there is, therefore, a “feel-good” factor associated with consuming them’. However, as Ilbery and Maye (2005) argue, these food values are limited in their descriptive detail, with potentially varied interpretations of what they mean and how they relate to local food. Born and Purcell (2006) warn against the *local trap* – that there is nothing inherently good or bad about any scale. Dupuis and Goodman (2005) acknowledge that the local is not an innocent term, and are concerned that localism can be based on the interests of a narrow elite. Yet, the reference to local food in Danish print media is distinctly positive.

#### *Food System: Local and National Imaginaries*

The findings show that different print media sources tell different stories about local food. There is, for example, a tendency that regional dailies and local weeklies, to a larger extent than nationwide dailies, talk about local food events and local food networks, which may indicate a hyper-local imaginary of local food culture. Nationwide dailies, on the other hand, tend to talk to a larger extent than regional dailies and local weeklies about celebrity chefs and new Nordic cuisine (NNC). This may indicate a national imaginary of national identity and branding. The NNC can be considered a significant precursor of an emergent national or ‘Danish’ cuisine. Fischler (1988) claims that, because food is key in the construction of identity, cuisines are ‘invented’. The NNC was invented by gourmet chefs and other food professionals (all male) in 2004 (Risvik et al., 2008). Borrowing from Belasco (2002, p. 12), national cuisines ‘may be most important to the people who stand to profit the most from their construction... while it is unclear how important national cuisines are to people’s daily lives’. Along these lines, the NNC has a slow trickle-down effect. As Micheelsen et al. (2013) point out, its elitist character is a barrier for consumer acceptance. The NNC carries elitist overtones in the sense that it is something exclusive to which only few have access. Another take on this is that the NNC can be seen as the preserve of an elite, who are seeking to impose their food preferences

on the population (Micheelsen et al., 2013) by laying down canons of a 'correct' diet (Mennell, 2005).

The interplay of local and national inflection reflected in Danish print media is a central finding of this article; it indicates that nationwide dailies portray national imaginaries, apart from local imaginaries portrayed in regional dailies and local weeklies, which do not reveal everything that is going on. Local food cannot be understood without reference to the local scale. As James (1997) notes, food is more often *localized* than nationalized. However, at the same time, both culinary globalization and culinary nationalism have resulted in the strong push for local food (Wilk, 2006). In this sense, local food can be understood both as flow and friction between dualisms of local–global and, as we shall see, marginal–mainstream. Thus, as Ohnuki-Tiemey (1999, p. 240) argues, the local and the global 'are mutually constituent forces'. Academics across disciplines offer perspectives that call into question the neat opposition of local and global. What is global and what is local are fundamentally related within an overall system (see e.g. Hinrichs, 2003). Wilk (1999) uses the history of Belizean food to show how local and global imaginaries are not contradictory trends but in fact aspects of the same process.

#### *Food Tourism: A Driver for Rural Development*

The findings indicate a strong relationship between local food, tourism and rural development. The potential for using local food as a driver of tourism (Blichfeldt and Halkier, 2013) and rural development (Marsden et al., 2000) is widely recognized. There are many examples of how the interrelationship between food, tourism and rural development has been put into practice around the world (see Du Rand and Heath, 2006). A central view is that local food increases tourism due to local place-branding and experiential opportunities. Local food can be considered as an experience in a destination and has many possibilities to be used to market a destination (Du Rand and Heath, 2006). From this perspective, destinations are trying to incorporate local food into the tourism product (Mason and Paggiaro, 2009). The close interconnection between a local place-brand and a local food is novel in a Danish context (Manniche and Larsen, 2013). From this the question raises whether the initiatives related to local food and tourism are likely to achieve the socio-economic development objectives sometimes claimed for them, e.g. enhanced employment, increased economic and social activities. This article is not able to answer this question based on extant knowledge. However, a number of European case studies explore the potential (e.g. O'Connor et al., 2006; Fonte and Papadopoulos, 2010). This said it has yet to be seen 'who gains and who loses' from the emerging local food trend in Denmark. Nevertheless, the local scale per se is no guarantee for the realization of rural development objectives.

#### *Food Events: Branding Place at the Local Scale*

An important resource within food tourism is represented by events (Mason and Paggiaro, 2009). The findings suggest a wide range of local food events—that is, food festivals, culinary routes, food markets – have been established across the different regions in Denmark. Local food is used to enhance cultural expressions of public debates, official dinners, art exhibitions and other food-related events. Cross-network

collaboration between local food, arts and crafts, and tourism networks are identified as key elements in the success of food events. The articulation of food events may contribute to the regional identity of products, attract local customers and tourists. Blichfeldt and Halkier (2013) claim that food events may be intertwined particularly with place due to their grounding in local food and local culinary traditions. Such events may generate income and provide recreational and leisure activities for locals. They maintain that food events are well suited to contribute to the branding of a particular locality. Stories and events are imperative if rural areas wish to engage in commodification of local food to improve their position and foster development.

#### *Local Food in Supermarkets: From Marginal to Mainstream*

Another prevalent topic is the introduction of local food into mainstream supermarkets. The findings show that conventional retailers in Denmark have begun to take an interest in local food. In their infancy, local food has typically been distributed through direct marketing strategies – that is, farmers' markets, farm shops, box schemes, food co-ops – parallel to mainstream channels. However, it appears that Danish supermarket chains are starting to systematize efforts to supply and market local food. This is part of an overall competitive strategy to differentiate the supermarket chains from the discount and international chains, and to meet an increasing consumer demand. Organic products are no longer enough for the retailers to distinguish themselves. This means that they are looking for something new. Local food is therefore one of the drivers. However, using local food as a way of branding supermarkets may contribute to a cheapening of the potential for how we look for ways to enhance the viability of local food.

Some scholars suggest that such moves by leading retailers may dilute the meaning of local food (Goodman and Goodman, 2009). Renting et al. (2003) argue that the increased corporate control brings with it the danger of a downward pressure on producer prices and product quality, thereby undermining the purpose of local food. There are concerns that the supermarkets will hijack the momentum behind local food and exploit it as a niche retail marketing opportunity without having any genuine commitment to local small-scale producers (Jones et al., 2004). One example of this is how organic food has shifted from the marginal to the mainstream. Kjeldsen and Ingemann (2009) argue that from the 1970s onwards organic food networks in Denmark have evolved from being primarily a marginal social movement to becoming an integrated part of the market mainstream. In 2006, around 80% of organic food products in Denmark were sold in supermarkets (see Denver et al., 2012). Today, the organic food sector in Denmark does not differ significantly from the conventional food sector. One of the indicators is that the average farm size within the Danish organic dairy sector is larger than conventional farms (Statistics Denmark, 2013); another indicator is that it becomes export orientated rather than local. This, as Kjeldsen and Ingemann (2009) suggest, can be seen as an example of the co-optation of an alternative system by the established mainstream. As local food is gradually distributed in supermarkets it will become mainstream. Yet supermarkets may provide new opportunities for local food producers (Jones et al., 2004) due to, for instance, the infrastructure they create (Dunne et al., 2011). Reisch et al. (2013) point out that narrowing the distance between production and consumption would help to reduce preferences for industrially prepared meals over local food. The availability of local food through supermarkets has the potential to reach more consumers

(Hinrichs and Charles, 2012). Despite concerns, one way of diffusing local food more widely in society is by translating it into mainstream thinking. Thus the marginal interacts with the mainstream in complex ways, underlining, as we saw above regarding the local and the global, that it is not a case of 'either/or kinds of end states'.

## Conclusion

The aim of this article has been to find empirical evidence that could verify the seemingly new and growing interest in local food in Denmark, and to shed light on what meanings the concept of *local food* holds in Danish print media. This has provided a number of important insights into the amplitude of meanings local food carries.

This article has found evidence that Danish print media reporting on local food are increasing. This seems indicative of a new local food trend, which is likely to continue developing. The positive thing about this new attention to local food, despite its elitist tendencies, is that it may turn out to be a much needed lever for the food culture in Denmark. But what explains the increasing curve between 2003 and 2013 in Figure 1? A possible answer might be that the drive for local food is related to the development of the NNC, but also to climate change, the financial crisis, and Danish rural development policies. It appears that the interest in local food in Denmark began with the invention of the NNC around 2004. There are generally no articles referring to local food in a Danish context prior to 2004. This said reporting on local food in connotation with CO<sub>2</sub> reduction intensified around 2009, which was the year the United Nations Climate Change Conference COP15 was held in Denmark. It can also be observed that the interest in local food is growing steadily during the financial crisis of 2008–2011. The return to local food production is not necessarily a particularly new project – aspects related to re-localization were pretty much apparent during the crisis of the 1930s through to the 1970s (North, 2010). Additionally, it appears that Danish rural development policies play a role in the formation and steady increase of local food networks and food events through funding.

The article identified six major themes that are central to the understanding of local food in Danish print media, namely 'local food networks', 'food values', 'food system', 'food tourism', 'food events' and 'local food in supermarkets'. This suggests a multiplicity of meanings translated into one concept. Compared to organic food and the NNC, which are defined by a strict set of rules or guidelines, local food obeys no rule but 'local' and its interpretations are never fixed. The findings show that local food is often used in conjunction with objectives to achieve rural development. This is consistent with the 'European school' of research on local food, which, according to Goodman and Goodman (2009) and Hinrichs and Charles (2012), is interested primarily in how local food shapes or contributes to rural development. In general the reference to local food in Danish print media is distinctly positive.

Adopting a content analysis approach has provided a useful framework and allowed different levels and dimensions of local food to be taken into account. The content analysis revealed that interpretations of local food are contingent upon local and national scale. The findings indicate that national imaginaries, apart from local imaginaries, do not necessarily reveal everything that is going on. It appears that articles on local food in regional dailies and local weeklies to a large extent refer to hyper-local aspects, which advise and inspire local development, whereas articles in nationwide dailies seem to associate local food as exemplars of national cuisine by referring to celebrity chefs and NNC. This said, local food cannot be un-

derstood without reference to the local scale. However, at the same time, both culinary globalization and culinary nationalism have resulted in the strong push for local food (Wilk, 2006). Keeping with this, it may be argued that the introduction of local food into mainstream supermarkets blurs the lines between the marginal and mainstream. In this sense local food can be understood both as flow and friction between binary dualisms of local–global and marginal–mainstream.

## Notes

1. Hinrichs (2003, p. 34) suggests that ‘historically, present-day localization can be seen as “re-localization” – a return to the greater regional food self-reliance of the past’.
2. Between 2003 and 2013 Infomedia had 487 214 articles with ‘food’ in it and 116 855 articles with ‘food products’ in it.
3. The supermarkets Kvickly, SuperBrugsen and Dagli’Brugsen are driven by Coop Denmark – the largest provider of staple goods in Denmark
4. ‘The descriptor “alternative” is often used to signal oppositional or radical dimensions, such as aspirations to “reclaim” ownership of food production, “re-connect” consumers with producers through shorter supply chains, “resist” global capitalism, solve problems of social exclusion and ecological degradation and restore access to healthy food as a human right rather than a commodity’ (Kneafsey, 2010, p. 179).

## References

- ASKEGAARD, S. and MADSEN, T.K. (1995) *European Food Cultures: An Exploratory Analysis of Food Related Preferences and Behaviour in European Regions*, MAPP Working Paper 26. Aarhus: Aarhus School of Business.
- BAILEY, K.D. (ed.) (1994) *Typologies and Taxonomies: An Introduction to Classification Techniques*. Thousand Oaks, CA: Sage Publications.
- BEAVER, A. (2012) *A Dictionary of Travel and Tourism*. Oxford: Oxford University Press.
- BELASCO, W.J. (2002) Food matters: perspectives on an emerging field, in: W.J. BELASCO and P. SCRANTON (eds) *Food Nations*. New York: Routledge, pp. 2–23.
- BENTLEY, A. (2004) From culinary other to mainstream American: meanings and uses of Southwestern cuisine, in: L.M. LONG (ed.) *Culinary Tourism: Explorations in Eating and Otherness*. Lexington, KY: University of Kentucky Press, pp. 209–225.
- BLAKE, M.K., MELLOR, J. and CRANE, L. (2010) Buying local food: shopping practices, place, and consumption networks in defining food as ‘local’, *Annals of the Association of American Geographers*, 100, pp. 409–426.
- BLICHFELDT, B.S. and HALKIER, H. (2013) Mussels, tourism and community development: a case study of place branding through food festivals in rural North Jutland, Denmark, *European Planning Studies*, doi: 10.1080/09654313.2013.784594.
- BORN, B. and PURCELL, M. (2006) Avoiding the local trap: scale and food systems in planning research, *Journal of Planning Education and Research*, 26, pp. 195–207.
- BOSONA, T.G. and GEBRESENBET, G. (2011) Cluster building and logistics network integration of local food supply chain, *Biosystems Engineering*, 108(4), pp. 293–302.
- BOWEN, S. and MUTERSBAUGH, T. (2013) Local or localized? Exploring the contributions of Franco-Mediterranean agrifood theory to alternative food research, *Agriculture and Human Values*, 32(2), pp. 201–213.
- BOWKER, G.C. and STAR, S.L. (1999) *Sorting Things Out: Classification and Its Consequences*. Cambridge, MA: MIT Press.
- BUCHANAN, I. (2010) *A Dictionary of Critical Theory*. Oxford: Oxford University Press.
- BYRKJEFLØT, H., PEDERSEN, J.S. and SVEJENOVA, S. (2013) From label to practice: the process of creating new Nordic cuisine, *Journal of Culinary Science and Technology*, 11(1), pp. 36–55.
- CHLOUPKOVA, J., SVENDSEN, G.L.H. and SVENDSEN, G.T. (2003) Building and destroying social capital: the case of cooperative movements in Denmark and Poland, *Agriculture and Human Values*, 20, pp. 241–252.
- CHRISTENSEN, K., HERSKIND, A.M. and VAUPEL, J.W. (2006) Why Danes are smug: comparative study of life satisfaction in the European Union, *British Medical Journal*, 333(7582), pp. 1289–1291.
- DAGEVOS, H. and OPHEM, J. VAN (2013) Food consumption value: developing a consumer-centred concept of value in the field of food, *British Food Journal*, 115(10), pp. 1473–1486.

- DELIND, L.B. (2006) Of bodies, place, and culture: re-situating local food, *Journal of Agricultural and Environmental Ethics*, 19(2), pp. 121–146.
- DENVER, S., CHRISTENSEN, T., JENSEN, J.D. and JENSEN, K.O. (2012) The stability and instability of organic expenditures in Denmark, Great Britain, and Italy, *Journal of International Food and Agribusiness Marketing*, 24(1), pp. 47–65.
- DESOUCEY, M. (2010) Gastronationalism food traditions and authenticity politics in the European Union, *American Sociological Review*, 75(3), pp. 432–455.
- DUNNE, J.B., CHAMBERS, K.J., GIOMBOLINI, K.J. and SCHLEGEL, S.A. (2011) What does 'local' mean in the grocery store? Multiplicity in food retailers' perspectives on sourcing and marketing local foods, *Renewable Agriculture and Food Systems*, 26(1), pp. 46–59.
- DUPUIS, E.M. and GOODMAN, D. (2005) Should we go 'home' to eat? Toward a reflexive politics of localism, *Journal of Rural Studies*, 21(3), pp. 359–371.
- DURAND, G.E. and HEATH, E. (2006) Towards a framework for food tourism as an element of destination marketing, *Current Issues in Tourism*, 9(3), pp. 206–234.
- EDWARDS-JONES, G. (2010) Does eating local food reduce the environmental impact of food production and enhance consumer health?, *Proceedings of the Nutrition Society*, 69(4), pp. 582–591.
- ERIKSEN, S.N. (2013) Defining local food: constructing a new taxonomy: three domains of proximity, *Acta Agriculturae Scandinavica, Section B: Soil and Plant Science*, 63(1), pp. 47–55.
- FEAGAN, R. (2007) The place of food: mapping out the 'local' in local food systems, *Progress in Human Geography*, 31(1), pp. 23–42.
- FISCHLER, C. (1988) Food, self and identity, *Social Science Information*, 27, pp. 275–293.
- FONTE, M. (2008) Knowledge, food and place: a way of producing, a way of knowing, *Sociologia Ruralis*, 48(3), pp. 200–222.
- FONTE, M. and PAPADOPOULOS, A.G. (eds) (2010) *Naming Food after Places: Food Relocalisation and Knowledge Dynamics in Rural Development*. Farnham: Ashgate Publishing.
- FUTAMURA, T. (2007) Made in Kentucky: the meaning of 'local' food products in Kentucky's farmers' markets, *Japanese Journal of American Studies*, 18, pp. 209–228.
- GERMOV, J., WILLIAMS, L. and FREIJ, M. (2011) Portrayal of the Slow Food movement in the Australian print media: conviviality, localism and romanticism, *Journal of Sociology*, 47(1), pp. 89–106.
- GOODMAN, D. and GOODMAN, M. (2009) Alternative food networks, in: R. KITCHIN and N. THRIFT (eds) *International Encyclopedia of Human Geography*. Oxford: Elsevier Science and Technology.
- GRACIA, A., DE MAGISTRIS, T. and NAYGA, R.M. (2012) Importance of social influence in consumers' willingness to pay for local food: are there gender differences?, *Agribusiness*, 28(3), pp. 361–371.
- HINRICH, C. (2003) The practice and politics of food system localization, *Journal of Rural Studies*, 19, pp. 33–45.
- HINRICH, C.C. and CHARLES, L. (2012) Local food systems and networks in the US and the UK: community development considerations for rural areas, in: M. SHUCKSMITH, D. BROWN, S. SHORTALL, M. WARNER and J. VERGUNST (eds) *Rural Transformations and Rural Policies in the UK and US*. Abingdon: Routledge, pp. 156–176.
- HSIEH, H.F. and SHANNON, S.E. (2005) Three approaches to qualitative content analysis, *Qualitative Health Research*, 15(9), pp. 1277–1288.
- ILBERY, B. and MAYE, D. (2005) Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders, *Land Use Policy*, 22(4), pp. 331–344.
- INFOMEDIA (2014) *Medieliste: digital dækning*. Published online <<http://www.infomedia.dk/media/25847/kildeliste-digitale-medier.pdf>>, accessed 2 June 2014.
- JAMES, A. (1997) How British is British food?, in: P. CAPLAN (ed.) *Food, Health and Identity*. London: Routledge, pp. 71–86.
- JOHNSTON, J., BIRO, A. and MACKENDRICK, N. (2009) Lost in the supermarket: the corporate-organic food-scape and the struggle for food democracy, *Antipode*, 41(3), pp. 509–532.
- JONES, P., COMFORT, D. and HILLIER, D. (2004) A case study of local food and its routes to market in the UK, *British Food Journal*, 106(4), pp. 328–335.
- KJELSDEN, C. (2005) *Modernitet, tid, rum og økologiske fødevarer-netværk* [Modernity, Time, Space and Organic Food Networks]. Ph.D. dissertation, Aalborg University.
- KJELSDEN, C. and INGEMANN, J.H. (2009) From the social to the economic and beyond? A relational approach to the historical development of Danish organic food networks, *Sociologia Ruralis*, 49(2), pp. 151–171.
- KJELSDEN, C., DELEURAN, L.C. and NOE, E. (2013) The quality turn in the Danish food scape: new food chains emerging – new territorial impacts?, *Acta Agriculturae Scandinavica, Section B: Soil and Plant Science*, 63(1), pp. 19–28.
- KNEAFSEY, M. (2010) The region in food: important or irrelevant?, *Cambridge Journal of Regions, Economy and Society*, 3, pp. 177–190.

- KNEAFSEY, M., VENN, L., SCHMUTZ, U., BALÁZS, B., TRENCHARD, L., EYDEN-WOOD, T. and BLACKETT, M. (2013) *Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics*, Report EUR 25911 Joint Research Centre. Luxembourg: Publications office of the European Union.
- KRIPPENDORFF, K. (2012) *Content Analysis: An Introduction to Its Methodology*. Thousand Oaks, CA: Sage Publications.
- KURTZ, H., TRAUGER, A. and PASSIDOMO, C. (2013) The contested terrain of biological citizenship in the seizure of raw milk in Athens, Georgia, *Geoforum*, 48, pp. 136–144.
- LAW, J. (ed.) (2009) *A Dictionary of Business and Management*. Oxford: Oxford University Press.
- MANNICHE, J. and LARSEN, K.T. (2013) Experience staging and symbolic knowledge: the case of Bornholm culinary products, *European Urban and Regional Studies*, 20(4), pp. 401–416.
- MARSDEN, T., BANKS, J. and BRISTOW, G. (2000) Food supply chain approach: exploring their role in rural development, *Sociologia Ruralis*, 40(4), pp. 424–438.
- MARTINEZ, S., HAND, M., DA PRA, M., POLLACK, S., RALSTON, K., SMITH, T., VOGEL, S., CLARK, S., LOHR, L., LOW, S. and NEWMAN, C. (2010) *Local Food Systems: Concepts, Impacts, and Issues*, Economic Research Report 97. Washington, DC: U.S. Department of Agriculture, Economic Research Service.
- MASON, M.C. and PAGGIARO, A. (2009) Celebrating local products: the role of food events, *Journal of Food-service Business Research*, 12(4), pp. 364–383.
- MENNELL, S. (2005) Of gastronomes and guides, in: C. KORSMEYER (ed.) *The Taste Culture Reader: Experiencing Food and Drink*. Oxford: Berg Publishers.
- METZGAR, E.T., KURPIUS, D.D. and ROWLEY, K.M. (2011) Defining hyperlocal media: proposing a framework for discussion, *New Media Society*, 13(5), pp. 772–787.
- MICHEESEN, A., HOLM, L. and JENSEN, K.O.D. (2013) Consumer acceptance of the New Nordic Diet: an exploratory study, *Appetite*, 70, pp. 14–21.
- MINKE, K. (2009) *Danske medier*. Published online <[http://danskedagblade.dk/files/danskedagblade.dk/article\\_attachments/Download\\_gratis\\_0.pdf](http://danskedagblade.dk/files/danskedagblade.dk/article_attachments/Download_gratis_0.pdf)>, accessed 2 June 2014.
- MONTANARI, M. (2006) *Food Is Culture*. New York: Columbia University Press.
- MORRIS, C. and BULLER, H. (2003) The local food sector: a preliminary assessment of its form and impact in Gloucestershire, *British Food Journal*, 105(8), pp. 559–566.
- NORTH, P. (2010) Eco-localisation as a progressive response to peak oil and climate change: a sympathetic critique, *Geoforum*, 41(4), pp. 585–594.
- O'CONNOR, D., RENTING, H., GORMAN, M. and KINSELLA, J. (eds) (2006) *Driving Rural Development: Policy and Practice in Seven EU Countries*. Assen: Uitgeverij Van Gorcum.
- OHNUKI-TIEMEY, E. (1999) We eat each other's food to nourish our body: the global and the local as mutually constituent forces, in: R. GREW (ed.) *Food in Global History*. Boulder, CO: Westview Press, pp. 240–272.
- OSTROM, M. (2006) Everyday meanings of 'local food': views from home and field, *Community Development*, 37(1), pp. 65–78.
- PEARSON, D., HENRYKS, J., TROTT, A., JONES, P., PARKER, G., DUMARESQ, D. and DYBALL, R. (2011) Local food: understanding consumer motivations in innovative retail formats, *British Food Journal*, 113(7), pp. 886–899.
- REISCH, L., EBERLE, U. and LOREK, S. (2013) Sustainable food consumption: an overview of contemporary issues and policies, *Sustainability: Science, Practice, and Policy*, 9(2), pp. 7–25.
- RENTING, H., MARSDEN, T. and BANKS, J. (2003) Understanding alternative food networks: exploring the role of short food supply chains in rural development, *Environment and Planning A*, 35(3), pp. 393–411.
- RISVIK, E., MEYER, C., HÄLIEN, E. and EDMAN, P. (2008) *New Nordic Cuisine*. Published online <[http://nynordiskmad.org/fileadmin/webmasterfiles/PDF/Ny\\_Nordisk\\_Mad\\_Low.pdf](http://nynordiskmad.org/fileadmin/webmasterfiles/PDF/Ny_Nordisk_Mad_Low.pdf)>, accessed 2 June 2014.
- ROSE, N., SERRANO, E., HOSIG, K., HAAS, C., REAVES, D. and NICKOLS-RICHARDSON, S.M. (2008) The 100-mile diet: a community approach to promote sustainable food systems impacts dietary quality, *Journal of Hunger and Environmental Nutrition*, 3(2–3), pp. 270–285.
- SCHÖNHART, M., PENKER, M. and SCHMID, E. (2009) Sustainable local food production and consumption: challenges for implementation and research, *Outlook on Agriculture*, 38(2), pp. 175–182.
- SEYFANG, G. (2006) Ecological citizenship and sustainable consumption: examining local organic food networks, *Journal of Rural Studies*, 22(4), pp. 383–395.
- SIMS, R. (2009) Food, place and authenticity: local food and the sustainable tourism experience, *Journal of Sustainable Tourism*, 17(3), pp. 321–336.
- STATISTICS DENMARK (2013) *Accounts Statistics for Agriculture 2012*. Published online <<http://www.dst.dk/pukora/epub/upload/18675/regnjord.pdf>>, accessed 2 June 2014.
- SVENDSEN, G.L. and SVENDSEN, G.T. (2000) Measuring social capital: the Danish Co-operative Dairy Movement, *Sociologia Ruralis*, 40, pp. 72–86.

- TONKISS, F. (1998) Analysing discourse, in: C. SEALE (ed.) *Researching Society and Culture*. London: Sage Publications, pp. 245–60.
- TONKISS, F. (2004) Analysing text and speech: content and discourse analysis, in: C. SEARLE (ed.) *Researching Society and Culture*. London: Sage Publications.
- TREGGAR, A. (2011) Progressing knowledge in alternative and local food networks: critical reflections and a research agenda, *Journal of Rural Studies*, 27(4), pp. 419–430.
- WEBER, R.P. (ed.) (1990) *Basic Content Analysis*. London: Sage Publications.
- WILK, R.R. (1999) Real Belizean food: building local identity in the transnational Caribbean, *American Anthropologist*, 101(2), pp. 244–255.
- WILK, R. (ed.) (2006) *Fast Food/Slow Food: The Cultural Economy of the Global Food System*. Lanham, MD: AltaMira Press.



## **Beyond the Public–Private Divide: GLOBALGAP as a Regulation Repository for Farmers**

ANTOINE BERNARD DE RAYMOND AND LAURE BONNAUD

*[Paper first received, 24 March 2014; in final form, 15 July 2014]*

**Abstract.** In the European Union, food safety policies combine public regulations with private standards, in accordance with co-regulation principles. GLOBALGAP was initiated in 1997 by European retailers who developed a shared certification scheme inducing producers to comply with requirements on food safety, sustainable production methods, occupational health and animal welfare. The rise of standards in the governance of agri-food chains has been the subject of extensive debate among social scientists, based mainly on the issue of legal pluralism. Public regulations and voluntary standards are commonly presented as simultaneously competing with *and* reinforcing legal systems. The aim of this article is to discuss this assumption. First, we analyse GLOBALGAP as a repository, demonstrating that it is composed of heterogeneous types of prescription, such as good practice, proof recording and the rule of law, and that it covers many different issues (quality, environment, producer health, animal welfare, etc.). Second, we examine the issue of the rule of law within a voluntary standard and show that GLOBALGAP operates as a centre of calculation, bringing together separate existing elements of the law. As a consequence, the standard provides a material, organizational and cognitive support for a managerial rationalization of farms by actors such as consultants or producers organizations.

### **Introduction**

Since the mid-1990s, two phenomena have modified dramatically the organization of agricultural production and trade: on the one hand, the liberalization and globalization of food markets and, on the other, the increasing importance of environmental and health issues. The concomitance of these two phenomena has been analysed as the emergence of a new agri-food regime (Le Heron, 1993), qualified as a neo-liberal food regime (Otero, 2012), a corporate environmental food regime (McMichael, 2005), or green capitalism (Friedmann, 2005). This third regime arose through a reconfiguration of food system regulations (Campbell and Le Heron, 2007), marked by the development of voluntary private standards (Busch and Bain, 2004; Bartley, 2007; Busch, 2011), which complemented or competed with traditional command-and-control regulation by the state (Havinga, 2006).<sup>1</sup> Where the law is enforced by inspections and by a legal and administrative system, private standards

Antoine Bernard de Raymond and Laure Bonnaud are researchers at the National Institute for Agricultural Research (INRA), at RiTME, 65 Boulevard de Brandebourg, 94205 Ivry-sur-Seine, France; email: <antoine.deraymond@ivry.inra.fr>.

are ensured by third-party certification (Hatanaka et al., 2005), with the certification bodies henceforth being themselves certified (Hatanaka, 2014).

Historically, food governance has been both a public and a private matter. Guilds were recognized by the state and played a role in ensuring the safety of foodstuffs (Ferrières, 2002; Stanziari, 2005). So what is happening now is not completely new. What is new, is the ways in which public and private governance are now inter-linked. Generally, four arguments are put forward to explain the current restructuring of agriculture and food governance (Henson and Humphrey, 2010, p.9): 1. a change in scientific and technical risk analysis that attaches greater importance to monitoring processes than to checking the final product, thus justifying a systemic approach to quality; 2. the evolution in consumer and producer perceptions of food safety, food quality and the impact of food on health; 3. the globalization of food sectors and the need for guarantees for suppliers; 4. the changes in public policies themselves, particularly in Europe, attaching greater importance to corporate responsibility (Marsden et al., 2010). For the last 10 years or so, the European Union has recognized the production of private standards to complement its own legislative framework, giving birth to new hybrid normative modalities (Egan, 2001; Graz, 2006). In particular, the EU propounds the notion of co-regulation, an original combination of public and private standards defined as follows: 'Co-regulation combines binding legislative and regulatory action with actions taken by the actors most concerned, drawing on their practical expertise' (CEC, 2001, p. 25). The aim of this article is to understand the complexity and variety of interactions between state and private regulations: for instance, do private regulations compete with or reinforce public rules? To address this issue, we examine the case of GLOBALGAP, a standard for good agricultural practices. GLOBALGAP is a very good example for our article, because it is a global quality assurance standard, based on risk management, which essentially concerns food safety, occupational health and environmental protection in relation to agricultural activities (plant protection products, drug residues from livestock farming). It is thus intended to regulate issues that are covered by the law.

### **Co-regulation in Action: Investigating the Materiality of Private Standards**

The worldwide spread of GLOBALGAP has led to numerous debates in the field of social sciences, focusing mainly on two related issues: power asymmetries between retailers and farmers (Campbell, 2005; Bain, 2010; Tallontire et al., 2011) and competition between the public and private regulation of agri-food sectors. In this section we will be focusing on the latter.

Private and public regulations are often presented as being antagonistic. Some people stress the efficiency, pertinence and flexibility of private norms, whilst others point out that they are related weakly to systems of sanction and that they do not live up to their promises (Gunningham and Rees, 1997). Yet as early as 1997, Gunningham and Rees stated that 'there is no clear dichotomy between self-regulation on the one hand and government regulation on the other. Rather, there is a continuum' (Gunningham and Rees, 1997, p. 366). Following on from this perspective, recent publications – in particular the *IJSAF* special issues on the governance and politics of standards (*IJSAF*, vol. 20, nos. 1–2, 2013) – offer a more nuanced analysis of the relationships between public regulation and private standards, thus refuting the notion of a divide between public regulation and private governance. Rather than a deregulation of the markets or a privatization of the governance of agri-food chains,

we are seeing a re-regulation, a redistribution of the respective competencies between public and private actors (Lockie et al., 2013). For example, private standards can be applied to areas that up until now have not been regulated by state law (Ponte et al., 2011). Private standards are valid on an international scale, which sometimes compensates for constraints proper to the nation state, thus allowing the latter to concentrate on other aspects of regulation (Ponte et al., 2011). Furthermore, the distinction between public regulation and private standards is not always as simple as it might seem. Whilst public rules are seen as being obligatory and private standards as voluntary, some public standards are voluntary and certain private standards can become obligatory (Bernard de Raymond, 2012; Challies, 2013). In addition, ‘there may also be overlap between the two where public regulations incorporate private standards... and where private standards incorporate public standards’ (Bain et al., 2013, p. 2).

It is therefore necessary to have an empirical grasp of how public regulations and private standards interlink. In the typology proposed by Henson and Humphrey (2010), GLOBALGAP is portrayed as an emblematic example of a voluntary private standard, defined by a private actor, implemented by private firms or organizations, audited by private certification bodies. The authors also point out that it is a collective international standard, set by a collective organization, adopted and implemented internationally. Whilst we draw on this typology in this article, we also wish to take into account the content and materiality of the standard. As far as grass-roots actors are concerned, GLOBALGAP does not just exist as a set of abstract principles, but also in the production of written documents: lists, files, computer records, etc. By taking account of these reading and writing activities in relation to GLOBALGAP, it is possible to observe the type of regulation that the standard ‘performs’ (Callon, 1998, 2006; Loconto, 2014). Thus, we examine the GLOBALGAP standard from a science studies standpoint (Callon, 1986; Latour, 1987), as a technology that makes it possible to act on the world by classifying and categorizing it (Higgins and Larnier, 2010; Kamp, 2013; Loconto, 2014). From this point of view, the standard enables ‘otherwise disparate or unrelated entities to be brought together into a single space of calculation’ (Higgins and Larnier, 2010, p. 208). We apply this perspective to GLOBALGAP, which means not only observing the standard in its materiality, but also paying attention to local conditions for its dissemination and implementation (Higgins and Larnier, 2010). We do not take for granted the content of the standard, its force and its significance for those who use it. In this we agree with Aasprong (2013), who analysed GLOBALGAP implementation by banana producers in St Vincent. He highlights the role of interpretations of GLOBALGAP by a whole series of actors, i.e. by standardizing networks. He demonstrates that producer organizations, internal auditors and consultants play a key role in the standardizing work. The effects of GLOBALGAP cannot be grasped without describing the entire chain of actors involved in its implementation. Expanding on this, our article examines GLOBALGAP’s development in the fruit and vegetable sector in France, and analyses how these farmers – and those working with them (producer organizations, consultants) – cope with the standard and how it affects their understanding of the law.

### **The Spread of GLOBALGAP in the French Fruit and Vegetable Sector**

GLOBALGAP or ‘Global Good Agricultural Practices’ was initiated in 1997 with the name EurepGAP by several major north-European retailers (Ahold, Migros, Sains-

bury's, Tesco, etc.), all of which are members of the Euro-Retailer Produce Working Group (EUREP). It is a professional standard developed to regulate business between producers and distributors; but as it is not designed to inform consumers, it is not subject to any product labelling. GLOBALGAP is managed by Food-Plus GmbH since 2001. Originally designed for fruit and vegetable production, GLOBALGAP now covers a wide range of fresh food products. Casey (2009) shows that GLOBALGAP's existence is the result of three converging shifts: 1. public authorities transferring responsibility for food safety and food quality over to the food industry; 2. the international diversification of supply, which has led to the retailers wanting additional guarantees; and 3. the change in consumer attitudes towards food. Thus, as Lockie et al. (2013, p. 279) point out: 'GlobalGAP emerged then both in response to state failure with respect to food safety (particularly BSE food scare of the late 1980s) and in response to state interventions designed to increase private-sector attention to food safety'. Since the first producer was certified in 2001 there has been a steady increase in the number of certified producers up to the current level of 123 000.

Within the global deployment of GLOBALGAP, France's position is somewhat specific: in 2011, 3,737 French producers had GLOBALGAP certification, compared to 25 923 Spanish producers, 15 893 Italian producers and 8,997 German producers. This puts France on the same level as Belgium or Turkey (respectively 3,330 and 3,009 certified producers). These differences can be explained by whether a country is an importer or exporter on the world trade market and by the distribution and certification history in each individual country (Hertzfeld et al., 2011). With production estimated at 8.7 million tons in 2011 (3.2 million tons of fruit and 5.5 million tons of vegetables), France is the third largest producer of fruit and vegetables in Europe, behind Italy and Spain. Most of its produce is aimed at the domestic market. Moreover, since the 1990s, French authorities have tried to develop certifications with agri-food professionals to inform consumers about product quality. Main retailers have also developed their own quality labels, combining product quality with health and environmental concerns (Bernard de Raymond, 2013). Compared to these initiatives, the GLOBALGAP standard might have seemed less worthwhile: it is not used to communicate with consumers, it has more varied objectives and it does not integrate the issue of product quality. Furthermore, the French government has tried to introduce a public voluntary standard for global quality management on farms – *Agriculture raisonnée* (Bernard de Raymond, 2012).

This article is based on one set of interviews with actors in the French tomato sector who are part of the organized sector (i.e. members of producer organizations),<sup>2</sup> and another set of interviews with independent vegetable growers (non-producer organization members) and consultants.<sup>3</sup> France has 22 940 farms for fruit and 30 800 for vegetables, all together covering approximately 1.5% of utilized agricultural land and representing 8.2% of agricultural production in value terms (FranceAgriMer, 2011). The sector employs over 140 000 AWU (annual work unit), a large number of whom are seasonal workers. In this sector the average size of professional farms is 8 ha (Agreste, 2007) as opposed to 77 ha for professional farms overall. They are therefore 'small farms', which use a large amount of manpower. Technical investments (glasshouses, heating, etc.) are common for some crops (tomatoes, strawberries, etc.). For the most part, fruit and vegetable growers apply the principles of integrated pest management (the use of auxiliary insects to reduce the need for pesticides, which are nevertheless still allowed).

Within the European Union, the common organization of the market for fruit and vegetables is based on producer organizations (POs), mainly cooperatives. The aim of European policy is to give producers the power to negotiate with large-scale retailers: in particular, POs are responsible for marketing the products and thus for negotiating sales. Only POs may receive subsidies under the Common Agricultural Policy (CAP), which are not available to independent producers. In addition to the marketing, POs often provide their members with technical advice (on climate, hygrometry, pest control, etc.). They employ quality managers and technicians who work with the producers over the long term (often over several years). Independent producers, on the other hand, use consultants who provide one-off services. Some consultants are highly specialized (in climatology for example) and offer expert services. This is not true of the consultants in our study, who are generalists: they assist producers with administrative tasks, technical advice and certifications, including GLOBALGAP. The market share of organized production varies considerably within the EU. In the Benelux countries a handful of POs market approximately 90% of domestic production, whereas in France in 2009, about 300 POs were responsible for 50% of domestic fruit and vegetable production (FranceAgriMer, 2013). In 2011, 70% of GLOBALGAP certified producers were PO members. A comparison between organized and independent producers is therefore relevant. In addition to the subsidies, POs offer their members the resources they need to adopt the GLOBALGAP standard and pay for some of the related practices, whereas independent producers generally use private consultants.

This article is organized as follows: in the first section we demonstrate that the GLOBALGAP standard is not a single document but a repository (Star, 2010), i.e. a complex set of texts that are interlinked with varying degrees of coherency and that deal with issues as diverse as environmental protection or product quality. Furthermore, certain prescriptions relate to pieces of public regulation that are embedded in the standard. In the second section, we look at various interpretations of how public regulation and private governance intersect (does GLOBALGAP strengthen or weaken the law?), and we show that the repository creates its own effects on the law and the way it is conceived and implemented. As a consequence, GLOBALGAP produces a reinforcement of the managerial evolution of agriculture.

## **The GLOBALGAP Standard as a Repository**

### *A Heterogeneous Set*

First and foremost, the GLOBALGAP standard is based on a holistic approach to protect diverse interests: food safety, sustainable production methods, worker and animal welfare, responsible use of water, compound feed and plant propagation materials. As far as plants are concerned, the standard's 234 control points are divided as follows: 117 to ensure food safety, 21 for worker health and safety, 46 to ensure traceability, and 50 for the protection of the environment. GLOBALGAP therefore brings together items that are usually separated by law (relating to labour law, environmental law or the rural code) thus engendering a process to ensure legal coherency and rationalization. Second, GLOBALGAP is not a single document but a *set* of documents: the system's general regulations, national guidelines, a list of control points and compliance criteria, and a checklist for auditing farms. Since EurepGAP became GLOBALGAP, the list of control points has been divided into different mod-

ules, starting with a compulsory module applicable to all farms, and then a second module specific to the type of farm in question (crops, livestock, aquaculture), which itself contains further modules relating to various subcategories (fruit and vegetables, field crops, coffee, tea, flowers and ornamental plants for the crops module).<sup>4</sup> Furthermore, the type of requirement can vary, depending on the document: there are declarations of principle, recommendations, directives of varying degrees of restriction, relating to the production itself, or to how the farm should be organized, or to how employees should work, etc. Finally, in its physical form GLOBALGAP is a documentary system (usually in the form of a binder file), which for grass-roots actors relates to different activities: some documents describe farm operation, others serve as proof of purchase (receipts for certified seeds and plants, water analysis); others take account of farming practices (fertilization or plant protection); still others provide a self-monitoring system to ensure that all certification requirements are being met, along with descriptions of corrective procedures.

In order to obtain GLOBALGAP certification, producers must undergo an audit by a certification body. The most important documents for obtaining certification are the list of control points and compliance criteria, and the checklist for the auditors. The audit is the procedure that will determine whether or not the producer is granted the GLOBALGAP certificate. The control points are divided into three categories: major musts, minor musts, and recommendations. The version currently in force consists of 95 major musts, 117 minor musts, and 22 recommendations. To obtain certification, producers must satisfy all of the major musts and 95% of the minor musts; the recommendations do not constitute formal criteria for elimination. The content of the requirements in the control points and compliance criteria document fluctuates between different rationales. Certain points require producers to use a reflexive feedback on how they work, so as to implement good practices; others are based on risk assessment and on introducing risk control procedures; others serve to identify and make an inventory of the components used in the production process; others relate to record keeping and traceability; finally, yet others remind to comply with local laws.

As an example, Table 1 presents an extract from the checklist. In this extract from the auditors' control document, we can see the musts (major or minor) and the recommendations. Whilst the recommendations (point FV.2.1) relate to a rationale of

**Table 1.** Extract from the GlobalGAP checklist.

<b>FV2 Substrates (N/A where substrates are not used)</b>			
FV.2.1	Does the producer participate in substrate recycling programs for substrate where available?	The producer keeps records documenting quantities recycled and dates. Invoices/loading dockets are acceptable. If there is no participation in a recycling program available, it should be justified.	Recom.
FV.2.2	If chemicals are used to sterilize substrates for reuse, have the location, the date of sterilization, type of chemical, method of sterilization, name of the operator and pre-planting interval been recorded?	When the substrates are sterilized on the farm, the name or reference of the field, orchard or glasshouse is recorded. If sterilized off farm, then the name and location of the company, which sterilized the substrates, are recorded.	Major must

Source: GLOBALGAP, 2013.

practice improvement (in this case participating in a substrate recycling programme), the musts (i.e. what is controlled by the certification body) relate to recording how the chemical products are used (FV.2.2.) and hence to practicing traceability.

Certain of the standard's other musts relate implicitly or explicitly to the obligation to comply with the law – or the compliance criterion for a must might be a legal obligation. As an example, here are the compliance criteria in the list of control points relating to post-harvest treatments:

'All the plant protection products applied are officially and currently *authorized and permitted by the appropriate governmental organization in the country of application*. Where no official registration scheme exists, refer to the GlobalG.A.P. guideline (annex CB 4) on this subject and FAO International Code of Conduct on the Distribution and Use of Pesticides. Refer also to Annex CB 4 for cases where producer takes part in legal field trials for approval of PPP by the local government' (GLOBALGAP, 2011, emphasis added).

The GLOBALGAP standard here works as a complex and hybrid set of written recommendations, in that it is based on specific requirements, whilst at the same time referring to items that exist in public regulations. The law is embedded in the private standard, which thus resembles a repository as defined by Star (2010, p. 603):

'we suggested that one kind of object, a repository, took the form of a set of modular things. These are things that might be individually removed without collapsing or changing the structure of a whole. A library, for example, or a collection of case studies (as in some parts of medicine, or in the Talmud), is a repository. A repository of this sort comes from the need for an assembly of things that are conceived iteratively. It has the feature that heterogeneity (internally) across things can be maintained but need not become confrontational. In a repository, the heuristic advantage is the encapsulation of internal units.'

The assembly of prescriptions, which are heterogeneous in nature and whose stakes differ in written form, is very coherent with the notion of repository. In particular, this type of material object has been analysed by the sociology of science developed following Latour (1996), which shows that the effects of collections are always greater than the effects of each of their components taken separately. This is the hypothesis we wish to test in this article.

To characterize the regulating effects of private food standards, we consider that a standard such as GLOBALGAP is material in nature and is seen by grass-roots actors as a set of written documents. With this in mind, what is the content of the standard and how do producers interpret it in concrete terms?

### *Reading through the GLOBALGAP Repository*

The heterogeneity of GLOBALGAP's design is not without consequence at grass-roots level. The standardizing work (Higgins and Larner, 2010) consists first of all in giving meaning to the standard's different prescriptions and in ensuring that the requirements are coherent with the document in which they appear. Reading through the repository thus involves four types of interpretative activities: recalling and listing all the requirements to be found throughout the various GLOBALGAP docu-

ments; stabilizing an interpretation of 'tricky' control points throughout a standardizing network; making sense of the gaps between public rules and their translation into GLOBALGAP's compliance criteria; making strategic use of the uncertainty surrounding the collective or individual nature of the GLOBALGAP certificate.

The first task for anyone wishing to obtain certification is to make a list of all of the requirements – and not just those found in the control points. Indeed, as this quality manager explains, the musts and the control points are not always consistent:

'With certain musts, the compliance criteria aren't always fully relevant, or they might be quite different from the must. For example, it might require the personnel to have facilities to wash their hands with drinking water. And the compliance criterion is that the soap must be fragrance free and must disinfect your hands. So the must relates to the equipment and the compliance criterion is about the consumables. They are not really linked. So you need to relist all of the compliance criteria and re-merge them to get a complete must. We're planning to make a new list of all of the compliance criteria to see if we have forgotten anything mentioned in the musts' (Quality Manager, PO, west of France).

This point might seem anecdotal were it not for the consequences for audits. It is open to different interpretations by auditors. It is impossible to know whether the representative of the certification body will prefer to conform with the general provisions, with the control points, or with both. It is therefore very important to consider – carefully and in advance – how the various documents might be interpreted given that they are not always coherent.

Second, interpretation of the standard involves a standardizing network (Aasprong, 2013) that includes producers, their technical consultants, PO's quality managers or private consultants (depending on whether or not the producer belongs to a PO) and auditors. Within this network there is a great deal of cooperation with a view to auditing. The distinction between auditor and consultant thus tends to blur. Audits aside, members of the certification bodies work alongside producer organizations or consultants to define together acceptable interpretations of given items in the standard. In the following extract, a quality manager explains that he attended a session organized by his certification body, in order to obtain a concrete definition of what is expected under any given requirement:

'For example, you have an item that tells you: Documented hygiene procedures have been implemented for harvest time. When you are not too familiar with the way things work, you wonder: what shall I do... what are hygiene procedures? In fact [the certification body] explained, in all simplicity, that if you put up posters, if you make people aware, then you are dealing with the problem. It was good to have some training to explain all that because at the time it seems somewhat curt and you think: if we have to teach everyone in the glasshouses about hygiene, it's not going to be easy! So in fact, as a procedure, posters are fine'.

It is not uncommon for producer organizations to organize 'mock audits' for their members, using auditors who belong to their chosen certification body but who are not the actual auditors who will perform the 'official' audit. The aim of all of these strategies is to reduce the uncertainties relating to the heterogeneity of the standard's components and to its numerous possible interpretations. Unlike the situation

that Aasprong describes for St Vincent, in France there is no pressure from extension services to adopt a strict interpretation of the standard. On the contrary, collective producer organizations try to facilitate the work required by their members by simplifying everything that could be simplified, and the choice of audit firm is the first step in this facilitation. The audit firm must be considered to be constant in its requirements, so that producers can predict how the auditors will interpret the standard. With GLOBALGAP, we are therefore a long way from dealing with a single, unequivocal document that can be applied in a uniform manner throughout the world. On the contrary, we can see that the standard is very open to different forms of implementation at grass-roots level.

Third, if we consider prescriptions in the standard intersecting with legal requirements, we can see that what is written in the standard might allow interpretations that are not in strict accordance with the law. When one touches on sensitive aspects of farm operation, where practices are not always perfectly in line with regulations, these ambiguous requirements offer producers a certain amount of flexibility. In such cases the level of precision in the way the must is written is decisive, as this quality manager explains with regard to re-entry intervals:

I'd say that the biggest problem at the moment is the re-entry interval. It's funny, in GLOBALGAP they've put: major must: is there a procedure for regulating the re-entry interval?; minor must: are re-entry intervals controlled? So, unlike pre-harvest intervals where they ask if the pre-harvest intervals are respected, here, regarding re-entry intervals, they ask whether they are controlled! But if, in their next version, they were to put: are the re-entry intervals respected?, and they make it a major must... well, I don't think anyone in fruit and vegetables would have GLOBALGAP! (Quality Manager, PO, west).

In this example, we see that although the standard intersects with the purpose of the law, stating that employees must not enter a glasshouse that has just been chemically treated, the way in which this objective appears in the checklist allows producers who do not respect the legal re-entry interval to nevertheless remain in compliance with the standard. This shows how the heterogeneous nature of the GLOBALGAP standard is just as much a constraint – involving a lot of work by grass-roots actors to ensure that requirements are coherent – as a resource that allows flexibility in the implementation of the standard. The heterogeneous nature of GLOBALGAP's components leaves open the issue of what the standard is and what conceptions of agriculture it conveys.

One final modality of GLOBALGAP interpretation concerns the certification itself, taken as a whole, and its strategic use on marketplaces. GLOBALGAP certification does not in fact relate to a single standard but to a series of modules that require varying degrees of commitment from producers. Furthermore, an option system allows producers who belong to a collective organization to seek certification involving said organization (GLOBALGAP Option 2) or to apply in their own name, on an individual basis (Option 1). However, when a producer organization obtains certification, this does not mean that all of its producers are certified. As this quality manager explains, some POs adopt a 'free rider' strategy, choosing to privilege the certification of just a few of their producers and to remain vague about the exact number of certified producers and about the types of product delivered to their clients:

'This year our biggest client asked us to get the GGN code, i.e. the GLOBALGAP number, for all products delivered. Whereas beforehand, how can I put it, things were vague, because you could have a GLOBALGAP certificate and yet not supply clients 100% with GLOBALGAP products. We kept things vague... And now things are no longer vague at all because you have to put the GGN number on the products, so it is vital that all products are GLOBALGAP.'

Between competitors, these practices are condemned by the more virtuous producer organizations, even if they cannot be used over a long term without customers turning a blind eye and themselves playing with the meaning behind GLOBALGAP certification.

Highlighting the internal heterogeneity of GLOBALGAP's components and the ambiguous nature of the standard itself is only the first stage in our analysis. We wish to pursue our analysis of the interactions between regulation and standard by looking at the consequences for the law itself.

### **The GLOBALGAP Standard as a Centre of Calculation**

Whilst it contributes towards the development of a hybrid system of governance – co-regulation – GLOBALGAP is also a hybrid instrument, encompassing recommendations, requirements, recording requests and reminders of the law. What type of governance does this standard produce? At grass-roots level, how can we describe the scope of this voluntary private standard compared to a more classic regulation based on the law? The literature offers several interpretations. After presenting two opposite interpretations, one describing GLOBALGAP as weakening the law, the other as strengthening it, we will take into account the point of view of grass-roots actors and propose GLOBALGAP as a centre of calculation (Latour, 1996).

#### *GLOBALGAP Weakening the Law*

Two types of argument have been put forward to show that standards such as GLOBALGAP undermine the law: 1. the standard, which is voluntary, creates confusion among producers with regard to the obligatory nature of compliance with the law; 2. such standards challenge the validity of national legislation within a context of globalization.

First and foremost, the spread of voluntary standards can be seen as leading to a legal crisis, in as much as technical standards tend to replace the law (Frison-Roche, 1998) whilst private standards create confusion between what is legal (mandatory) and what is voluntary (optional). This is the argument put forward by lawyer I. Doussan concerning the environmental standard *Agriculture raisonnée* (AR):

'Legally speaking, the fact that the AR scheme is almost identical to existing regulations indicates... a shift in policy. From a binding policy, justified by the existence of a risk of harming the environment that led to the enactment of a regulatory framework, public authorities are moving towards an incentive policy to help ensure that these legal binds are observed... The mixture of legal, incentive and regulatory genres is leading to the introduction

of a hybrid policy as an intended response to the failed application of environmental regulations by farmers' (Doussan, 2004, p. 4; our translation).

From this standpoint, the development of voluntary standards leads grass-roots actors to believe that any effort to protect health and the environment is optional and that it should therefore benefit from some type of incentive, be it added market value or public subsidy.

The farmers we met all subscribed to this conception of GLOBALGAP. When they described how they began the process, they explained that above all they were expecting to sell at higher prices, win new customers or penetrate new markets, especially for exports. After several years of certification, their assessment of the mechanism was clearly based on weighing up the cost and the effort they had put into the standard and the economic benefits that they had received.

'I wanted to get EurepGAP... But it's supply and demand that matter. End of story. And at the end of the day you're not paid in terms of the effort you put in, because you spend hours managing everything, monitoring everything... I mean, it's a lot of work on top of your everyday work, and somehow at the end of the day you're not paid for it' (Independent Producer, multi-produce, south-east).

In these extracts we can see that the producers view certification not as an opportunity to work in line with new precepts, but as a way of helping their businesses cope with economic stakes. In this respect the experience is relatively inconclusive and more often than not the producers are extremely disappointed. We find the same rationale being used by representatives from producer organizations who see GLOBALGAP as a source of subsidy from the European Union. European subsidies are funded as part of operational programmes and their allocation must be justified under criteria that properly relate to GLOBALGAP's stakes.

When they are analysing voluntary standards, jurists put themselves in the shoes of the actors who have to implement the law and the standards, i.e. they consider how individual actors alter their attitude towards the rules and see in GLOBALGAP an economic opportunity rather than an obligation. More particularly, these analyses show that when legal provisions are included in a voluntary standard (regulated by certification and market access), the penalty for non-compliance disappears. When producers do not comply with a regulation applicable in their country and this is highlighted by an audit, the only penalty is non-certification, but they escape their own country's repressive system. From a legal standpoint, the standard thus weakens laws that have been introduced under a traditional command-and-control system.

The second argument is based on an analysis of the heterogeneity of GLOBALGAP, which is yet promoted as a uniform standard at international level (Lockie et al., 2013). The broad diversity of countries in which GLOBALGAP is implemented (112 in 2011) ought to constitute a huge challenge where the standardization of requirements is concerned. Yet unlike other standards, such as ISO (Graz, 2004), the very structure of GLOBALGAP allows it to create commensurability without having to go through a lengthy phase of international standardization. This characteristic is based on partial recognition of the laws in individual states. As we saw in the first section, numerous requirements relate to the obligation to obey the national or local regulations that are in force wherever a producer may be located. This can be verified especially in relation to the standard's major musts. For example, a requirement

might be that storage facilities for the plant protection product comply with all the appropriate current national, regional and local legislation and regulations. By asking a third party (a certification body) to ensure that their suppliers are complying with the national regulations of their respective countries, retailers – who are often importers – are declaring implicitly that they do not need to know what these various legislations might be and that they are not responsible for any heterogeneity. The standard makes it possible to consider products that meet heterogeneous national regulations to be equivalent and thus to put them into competition with one another.

#### *GLOBALGAP as a Law Enforcer*

From a different perspective, GLOBALGAP might be considered as a standard that supports the law, in two ways. First, it promotes the regulation of certain matters (protection of the environment or workers' union rights, for example) that receive insufficient attention, especially in southern countries. Second, it ensures compliance with prescriptions the implementation of which is not properly monitored, in both developed and developing countries (Braithwaite, 2006; Challies, 2013).

The first argument has received considerable attention from researchers who are interested in the place occupied by developing countries in globalization. These countries often have underdeveloped regulatory frameworks and limited administrative capacities, and find themselves having to deal with powerful multinational companies with huge financial and technological resources. Such a situation leads them to exercise only limited control over the economic activity that takes place within their borders, especially when it comes to labour law or the protection of the environment. The situation is especially marked in countries that aim to use their lack of regulation to attract companies that employ a social dumping strategy (Graham and Woods, 2006). Within such a context, the regulatory contribution that standards make can be seen as an opportunity to fill the gaps left by state laws, even if certain NGOs criticize the 'smoke screen' that standards create (cf. Connor and Haines, 2006). There have often been such debates in relation to the clothing sector, particularly the manufacture of sports clothing and footwear by a certain number of multinational companies, but various works have also discussed the farming sector – in relation to coffee production, for example (Neilson, 2008). These works generally point out that standards produce effects that are far removed from what was intended, be it promises of fair trade or sustainable development. This has caused the companies, associations or consortiums that originated the standards to react and to modify their prescriptions in order to offer additional guarantees. For example, GLOBALGAP members are aware of the potential effects of unfair competition due to differences in national legislations, which is why for certain aspects they are trying to ensure that the standard plays a standardizing role. This is the case with social rights, for example, via the (optional) system of Global Risk Assessment on Social Practice (GRASP), which aims to standardize good social practices throughout the world.

The second argument suggesting that GLOBALGAP helps to support the law relates more to northern countries, which have the ability to regulate, but whose capacity to monitor implementation may be limited, either by choice or due to financial difficulties. This type of interpretation may be based on transaction cost economics. From this point of view, private standards provide an institutional guarantee that ensures a greater level of confidence in transactions and thus reduces the risk of

opportunism. In particular, by adding a system of third-party certification and market exclusion, standards allow for better application of the law (Codron et al., 2005; Henson, 2011). Indeed, in sectors that attract little vigilance from public authorities, certification bodies regularly ensure that there are controls that would be no more than hypothetical otherwise. The fruit and vegetable sector is a prime example of a sector where there are few controls. In 2009, for example, official French monitoring and control programmes led to the analysis of 4,953 samples of fresh or processed fruit and vegetables, products for baby food, cereals and organic vegetable products. This level of sampling must be compared to the 169 kg/year of fruit and vegetables eaten by each of France's 26 365 000 households (CTIFL, 2011). For grass-roots actors, GLOBALGAP represents a constraint of a different nature to that of the rule of law. In POs, the standard is seen as an addition to regulatory obligations. In all POs as an example of progress due to GLOBALGAP quality managers mention the installation of phytosanitary storage facilities on farms – something that is a legal obligation. In their opinion, the voluntary process encourages producers to obey the law and makes it possible to finally achieve what should already have been in place for a long time.

'GLOBALGAP helps you to get organized and catch up. Health-wise, when you are certified it's a case of: "You have to have a phytosanitary cabinet!" End of story. Which establishes authority at farm and organizer level' (Quality Manager, PO, south-east).

According to our interviews, GLOBALGAP has essentially promoted compliance with the law in two areas: 1. the traceability of phytosanitary treatments and the storage of treatment products; 2. working conditions and sanitary installations for farm employees. On the first point, all certified farmers now have cabinets or premises for storing pesticides and provide a recording to justify their use, even if the quality of the recordings is sometimes inadequate. The second point increases producers' obligations in a sector where seasonal employees are often illegal workers, which discourages them from standing up for their rights (Décosse, 2008).

Our observations in the field confirm the two successive interpretations set out above, which suggest that GLOBALGAP has a dual effect, both weakening *and* supporting the law. These approaches nevertheless consider GLOBALGAP and the law as unique entities with global effects, whereas if we consider GLOBALGAP to be a repository, we can show that the standard takes certain elements of the law, brings them together, allowing new interpretations of regulation within the standard. It is this effect that we now propose to examine.

### *GLOBALGAP as a Centre of Calculation*

We would like to offer a third interpretation of the debate on the complementary or antagonistic nature of the voluntary standard and the law, focusing on the fact that these standards unite areas of the law that are usually separate (labour law, health and safety, environmental law). As a result, the standard creates a sort of 'standards library'. Latour has done considerable research on the role that collections play in the production of knowledge (Latour, 1996). He refers to these real or virtual spaces where initially scattered elements are placed on an even footing as centres of calculation. Through this process, each individual element becomes better known and its comparison with the other elements also leads to increased knowledge. For ex-

ample, Latour describes a library in which each book provides self-knowledge, but also additional knowledge, because it can be qualified and compared with other books. In the same vein, GLOBALGAP's collection of obligations relating to products, workers, the environment and animal welfare, creates effects that are greater than each requirement taken individually. Producers, and also the intermediaries who help them to implement the standards, create equivalences (not always immediately obvious to an outside observer) between production and protection of the environment, or between integrated protection and occupational health.

'Before joining GLOBALGAP, you must already have an understanding of hygiene and quality, have a process in mind. Protecting your glasshouses from outside contamination – they learn about that when they get into integrated production and crop protection; little by little they learn about boot baths and all these systems that help you to really protect your glasshouses. I think that once they've achieved that, we can move on to another point, that of worker protection. And work organization. Because GLOBALGAP is about environment, quality and safety' (Quality Manager, PO, south-east).

'Let's take *traceability* as an example. It helps you to learn more about the farm, so potentially it's a tool for managing *production costs*, but the producers haven't taken that into account' (Consultant for independent producers).

GLOBALGAP is therefore an additional stage in the managerial rationalization of farms (Compagnone et al., 2009), a movement that has already been observed in Denmark by Mouritsen et al. (2000) in relation to the environmental certification of pig farms, or to the improvement of agriculture in fair trade (Loconto, 2014). This observation leads one to make a more detailed analysis of the actors involved in choosing a method of certification and who take charge of its implementation. We thus see the decisive role played by intermediaries, be they producer organizations or private consultants. GLOBALGAP supports their role, because its repository structure requires collective work to ensure compliance with the standard, whereas compliance with the law is an individual obligation.

#### *GLOBALGAP as a Joint Objective within Producer Organizations*

The GLOBALGAP approach is a process that involves a large number of grass-roots actors. Within producer organizations it engages producers, crop managers, technicians, quality managers, sales departments, etc. To varying extents, all of these have a vested interest in the producer obtaining certification and they will all help him/her in achieving that. In turn, this common objective puts group pressure on each individual producer (Durkheim, 1900).

'Before they are audited, do you assist them?

Completely, totally and utterly! [laughs] Yes, it's in our interest! As far as we are concerned it's always a bit like an exam, so we prefer to pass rather than fail. And the producers are always somewhat stressed before an exam. There mustn't be any stupid mistakes. When we know the date of the audit, we visit once a week and we do a little bit of cramming. It's a work

method... Producers know they will have to answer all of the questions in the scheme, and there are over 300 questions, so the producers are fairly stressed out. That's what you have to do, get into the documents, have a farm that corresponds to what you've written, not have any plastic containers lying around. Generally speaking there aren't any, but you don't want to screw up on the day' (Quality Manager, PO, south-west).

Above all, the standard's heterogeneous composition allows it to be implemented in a shared fashion, thus constituting a distributed cognition support (Hutchins, 1996). Indeed, as we demonstrated in the first section, GLOBALGAP can be considered a repository for requirements that set down a series of operations to be accomplished. So as far as organized production is concerned, all of the documentation and risk analysis is prepared by the PO, and a certain number of annual analyses (water, sprayer calibration, plant delivery) is carried out for the producers as a whole. Certain POs also have servers that allow them to automatically and remotely update the entire documentation system required for the audit, without the producers having to do anything. Only the recordings most relevant to everyday practices are left to the producers, coordination being the responsibility of the PO's quality managers. The latter set up the documentary system, carry out the required internal controls with the producers and assist them at the time of the audit. Constraints are thus shared across the organization, under a rationale of economies of scale and of reducing time spent on red tape (Bonnaud et al., 2012).

As far as market intermediaries are concerned, GLOBALGAP does not simply protect interests (quality, the environment, occupational health, animal welfare), it also improves a business's internal management. Indeed, it is for its method that the PO recommends it to producers, e.g. to those who have to organize multiple-site farms:

'There are producers [in the Rhône valley] who want to join because they have several enterprises and GLOBALGAP helps with organization. Whatever the level, it's bang, bang, bang, it's the same organizational structure, it's easier. Then there are other cases where it's the producers who want to evolve, because it's dynamic and they want to get involved with a process like that' (Quality Manager, PO, south-east).

'[GLOBALGAP] covers all the aspects where producers are not always really on the ball. Or in areas where they need to improve, to progress. It was an opportunity to provide a method. I'm not saying it's the be-all and end-all, there may be others that are much better, but it provides a method, a business framework to improve in certain areas. That's what I find interesting. In my organization, the people who adopted this process are people who have structure. The major disadvantage of these standards is the administrative side of things, which is fairly tiresome. A farmer who's all alone with his hectare of glasshouses and whose only employees are those in the glasshouses, who's got no secretary, no accountant, no... who is all alone, well that's a problem!' (Director of a producer organization, south-east).

As an instrument of both a normative and managerial nature, GLOBALGAP makes it possible to combine technical provisions, an organizational scheme and a quality management system. By taking account of the decisive role played by the interme-

diaries (quality managers, private consultants) who disseminate the standard and stabilize the way in which it is interpreted, we find that GLOBALGAP's main effect is the dissemination of a managerial farming norm.

*Independent Producers: New Consultants Promoting Management among Farmers*

As the previous interview extract shows, GLOBALGAP's implementation must be understood as a distributed collective process, which is a problem for independent producers. Just as GLOBALGAP's development led to the creation of new jobs (quality manager) within POs, it also contributed towards the development of a new profession, that of private consultants who could advise independent producers.<sup>5</sup> Just like the agricultural consultants studied by Aasprong (2013), these independent consultants play a central role in farmers' interpretations and implementations of the standard. Farmers are very reluctant towards GLOBALGAP, seeing it as a bureaucratic constraint imposed by retailers and as a necessary evil in order to continue to work with foreign markets. Independent consultants help farmers with the entire certification process, from writing the documents and preparing their implementation (risk control procedures, recording practices, etc.) through to the external audit.<sup>6</sup> Faced with this reluctance, they try to promote GLOBALGAP as a tool to improve management:

'Farmers have no idea of their impact on the environment: "product half-life", "vapour pressure" – they don't know what these things are. When we show them how much money they are losing on a given plot of land by not using their tools and chemicals properly, they realize that they are causing pollution' (Consultant for independent producers).

In other words, these consultants interpret GLOBALGAP and all of its requirements (which are relatively new from a producer's point of view) relating to health and the environment from a managerial and economic standpoint: they expect producers to adapt to these new requirements if it can be demonstrated that they will save money and improve the profitability of their businesses.

'They mainly see EurepGAP as a hindrance... Nowadays producers have to be managers. They need to know everything that happens on their farms. They need management charts but they don't have any. They are not in control of their processes. They haven't identified the sectors that need priority action. If I had to modernize farming, I'd turn producers into managers. That's about it!' (Consultant for independent producers).

According to the consultant we interviewed, GLOBALGAP certification applications are complicated to manage, both for Chambers of Agriculture and for independent consultants, because producers' lack of experience in risk management makes certification a very lengthy process. As the time spent with producers to help them understand the prescriptions is not billable generally, consultancy organizations necessarily lose money in this area.

Finally, in the case of PO-member farms and non-organized sector farms assisted by independent consultants, what is at stake in the adoption of GLOBALGAP and in the development of global risk management is the dissemination of a managerial norm. For the standardizing network that brings GLOBALGAP to the farmer, the

way to properly manage health, environmental and social requirements is to turn these requirements into good-management tools.

## Conclusion

In this article we have used a science studies approach to interpret the GLOBALGAP voluntary standard. We have examined the material nature of the GLOBALGAP scheme, highlighting how the standard works as a repository for heterogeneous prescriptions. GLOBALGAP is a set of documents bringing together heterogeneous requirements: risk management procedures, good practices, the production of recordings, compliance with the law in different legal areas (social law, health and safety, environmental law). In uniting these elements, ordinarily separate, the standard operates as a centre of calculation, and produces a specific effect of managerial rationalization.

The way in which the standard is implemented also has legal consequences. First, GLOBALGAP tends to blur the boundaries between the different sources of prescription. As a result, it is increasingly difficult for grass-roots actors to distinguish between what is obligatory and what is voluntary (Doussan, 2004).

Second, GLOBALGAP's format as a collection of prescriptions allows for distributed implementation. Compliance with the standard's requirements is embedded in a network, thus making compliance with the law a collective matter, whereas the law relies on individual responsibility.

Finally, we can hypothesize that this collection of prescriptions has a specific effect that we might call codification. The codification process is based on three essential principles established by J. Bentham (Lascoumes and Martin, 1995). To him, codification makes it possible: 1. to systematize fragmented legal elements; 2. to come to an agreement on principles and values, and to prioritize them; 3. to ensure the legal security of exchanges. In Bentham's case, it is a case of protecting citizens against political arbitrary, whereas for GLOBALGAP it is a question of protecting commercial transactions. Yet from the standard makers' point of view, it is definitely legal rationalization that is at work. From the grass-roots actors' standpoint, the utility of a global quality standard lies in its transversal and inclusive nature and in the legal coherency that it provides. If GLOBALGAP is constantly evolving, it is so that it can meet this expectation of exhaustiveness.

## Notes

1. In this article, we use Black's definition of regulation: 'regulation is the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome, which may involve mechanisms of standard-setting, information gathering and behaviour modification' (Black, 2002, p. 20).
2.  $N = 46$ , including PO producers, technicians, quality managers and directors. Jean-Marie Codron and Zouhair Bouhsina (INRA-Moisa) took part in this survey.
3.  $N = 10$ , including private producers and consultants. These independent vegetable growers were interviewed twice, with a three-year interval, which allowed us to ask them why some among them had dropped their GLOBALGAP certification.
4. This documentary system is further complicated by the introduction of add-on modules to allow producers who wish to take their certification even further on certain points, such as social or animal welfare. GLOBALGAP now publishes documents that summarize the changes and new aspects relating to upgrades of the standard. The complexity of the system has also caused GLOBALGAP to introduce a procedure for gradual entry into the standard, via a simplified version known as LocalGAP.

5. At the time of our survey, this consultant was in charge of a professional organization that he had himself helped to create and that represented and comprised independent agricultural consultants. At that time, the organization had approximately 20 members, but our interviewee estimated that at that time 60 to 70 people were working as independent agricultural consultants.
6. During audits by certification bodies, farmers often ask their consultants to be present so that the inspection does not degenerate into a confrontation.

## References:

- AASPRONG, H. (2013) Entangled standardizing networks: the case of GLOBALGAP and Fairtrade in St Vincent's banana industry, *International Journal of Sociology of Agriculture and Food*, 20(1), pp. 91–108.
- AGRESTE (2007) *Enquête structures 2007. Principales cultures selon leur superficie en 2007*. Published online: <<http://agreste.agriculture.gouv.fr/IMG/pdf/structure2008T11.pdf>>, accessed 23 June 2014.
- BAIN, C. (2010) Governing the global value chain: GLOBALGAP and the Chilean fresh fruit industry, *International Journal of Sociology of Agriculture and Food*, 17(1), pp. 1–23.
- BAIN, C., RANSOM, E. and HIGGINS, V. (2013) Contestation, hybridity and the politics of standards, *International Journal of Sociology of Agriculture and Food*, 20(1), pp. 1–10.
- BARTLEY, T. (2007) Institutional emergence in an era of globalization: the rise of transnational private regulation of labor and environmental conditions, *American Journal of Sociology*, 113(2), pp. 297–351.
- BERNARD DE RAYMOND, A. (2012) L'Agriculture raisonnée, un échec? La concurrence entre normes environnementales sur le marché des fruits et légumes, in: P. ALPHANDÉRY, M. DJAMA, A. FORTIER and E. FOUILLEUX (eds) *Normaliser au nom du développement durable*. Paris: Éditions Quae, pp. 63–80.
- BERNARD DE RAYMOND, A. (2013) *En toute saison, le marché des fruits et légumes en France*. Rennes: Presses Universitaires de Rennes.
- BLACK, J. (2002) *Critical Reflections on Regulation*, CARR Discussion Papers DP 4. London: Centre for Analysis of Risk and Regulation, London School of Economics and Political Science.
- BONNAUD, L., BOUHSINA, Z. and CODRON, J.-M. (2012) Le rôle du marché dans le contrôle des traitements phytosanitaires. L'exemple du secteur de la tomate, *Terrains et Travaux*, 20, pp. 87–103.
- BUSCH, L. (2011) The private governance of food: equitable exchange or bizarre bazaar?, *Agriculture and Human Values*, 28, pp. 345–352.
- BUSCH, L. and BAIN, C. (2004) New! Improved? The transformation of the global agrifood system, *Rural Sociology*, 69(3), pp. 321–346.
- CALLON, M. (1986) Some Elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay, in: J. LAW (ed.) *Power, Action and Belief: A New Sociology of Knowledge*. London: Routledge and Kegan Paul.
- CALLON, M. (ed.) (1998) *The Laws of the Markets*. Oxford: Blackwell.
- CALLON M. (2006) *What Does It Mean to Say That Economics Is Performative?*, CSI Working Papers Series 5. Paris: Centre de Sociologie de l'Innovation, École des Mines de Paris.
- CAMPBELL, H. (2005) The rise and rise of EurepGAP: the European (re)invention of colonial food relations?, *International Journal of Sociology of Agriculture and Food*, 13(2), pp. 6–19.
- CAMPBELL, H. and LE HERON, R. (2007) Supermarkets, producers and audit technologies: the constitutive micro-politics of food, legitimacy and governance, in: D. BURCH and G. LAWRENCE (eds) *Supermarkets and Agri-food Supply Chains: Transformations in the Production and Consumption of Foods*. Cheltenham: Edward Elgar Publishing, pp. 131–153.
- CASEY, D. (2009) *Three Puzzles of Private Governance: GLOBALGAP and the Regulation of Food Safety and Quality*, UCD Working Papers in Law, Criminology and Socio-Legal Studies. Research Paper 22/2009. Dublin: University College Dublin.
- CEC (COMMISSION OF THE EUROPEAN COMMUNITIES) (2001) *European Governance: A White Paper*, COM(2001) 428 final. Luxembourg: Office for Official Publications of the European Communities.
- CHALLIES, E. (2013) The limits to voluntary private social standards in global agri-food system governance, *International Journal of Sociology of Agriculture and Food*, 20(2), pp. 175–195.
- CODRON, J.-M., GIRAUD-HERAUD, E. and SOLER, L.-G. (2005) Minimum quality standards, premium private labels, and European meat and fresh produce retailing, *Food Policy*, 30, pp. 270–283.
- COMPAGNONE, C., AURICOSTE, C. and LEMERY, B. (eds) (2009) *Conseil et développement en agriculture. Quelles nouvelles pratiques?* Dijon: Educagri and Versailles: Editions Quae.
- CONNOR, T. and HAINES, F. (2006) Networked regulation as a solution to human rights abuse in global supply chains? The case of trade union rights violations by Indonesian sports shoe manufacturers, *Theoretical Criminology*, 17(2), p. 197–214.
- CTIFL (CENTRE TECHNIQUE INTERPROFESSIONNEL DES FRUITS ET LÉGUMES) (2011) *Achat de fruits et légumes frais par les ménages français en 2009*. Published online: <<http://www.fruits-et-legumes.net/consommation>>

- /document/achatdefruitsetlegumes2009.pdf>, accessed 1 July 2012.
- DÉCOSSE, F. (2008) La santé des travailleurs agricoles migrants: un objet politique?, *Études rurales*, 182(2), pp. 103–120.
- DOUSSAN, I. (2004) Entre contrainte et incitation: analyse juridique de la qualification au titre de l'agriculture raisonnée, *INRA Sciences Sociales*, 3/04, pp. 1–4.
- DURKHEIM, E. (1900) La sociologie et son domaine scientifique, in: E. DURKHEIM (1995) *Textes. Éléments d'une théorie sociale*. Paris: Éditions de Minuit, pp. 13–36.
- EGAN, M. (2001) *Constructing a European Market*. Oxford: Oxford University Press.
- FERRIÈRES, M. (2002) *Histoire des peurs alimentaires. Du Moyen-Age à l'aube du XXe siècle*. Paris: Éditions du Seuil.
- FRANCEAGRI-MER (2011) *Les filières des fruits et légumes. Données 2010*, Les cahiers de FranceAgriMer – Chiffres clés fruits et légumes. Montreuil: FranceAgriMer.
- FRANCEAGRI-MER (2013) *Production*. Published online: <<http://www.franceagrimer.fr/filiere-fruit-et-legumes/La-filiere-en-bref/Production>>.
- FRIEDMANN, H. (2005) From colonialism to green capitalism: social movements and emergence of food regimes, in: F.H. Buttel and P. McMichael (eds) *New Directions in the Sociology of Global Development*. Bingley: Emerald Group Publishing, pp. 227–264.
- FRISON-ROCHE, M.-A. (1998) Le contrat et la responsabilité. Consentements, pouvoirs et régulation économique, *RTD civ*, 1998(1), pp. 43–56.
- GLOBALGAP (2011) *Product Safety Standard Checklist*. Cologne: GLOBALG.A.P. Published online: <[http://http://www1.globalgap.org/north-america/upload/Standards/PSS/v4\\_0/120904\\_pss\\_cl\\_af\\_cb\\_fv\\_eng\\_v4\\_protected.xls](http://http://www1.globalgap.org/north-america/upload/Standards/PSS/v4_0/120904_pss_cl_af_cb_fv_eng_v4_protected.xls)>.
- GLOBALGAP (2013) *Integrated Farm Assurance Control Points and Compliance Criteria*, English version 4.0, March. Published online: <[http://www.globalgap.org/export/sites/default/.content/.galleries/documents/130315\\_gg\\_ifa\\_cpcc\\_af\\_cb\\_fv\\_v4\\_0-2\\_en.pdf](http://www.globalgap.org/export/sites/default/.content/.galleries/documents/130315_gg_ifa_cpcc_af_cb_fv_v4_0-2_en.pdf)>.
- GRAHAM, D. and WOODS, N. (2006) Making corporate self-regulation effective in developing countries, *World Development*, 34(5), pp. 868–883.
- GRAZ, J.-C. (2004) Quand les normes font la loi. Topologie intégrée et processus différenciés de la normalisation internationale, *Études internationales*, 35(2), pp. 233–260.
- GRAZ, J.-C. (2006) Hybrids and regulation in the global political economy, *Competition and Change*, 10(2), pp. 230–245.
- GUNNINGHAM, N. and REES, J. (1997) Industry self-regulation: an institutional perspective, *Law and Policy*, 19(4), pp. 363–414.
- HATANAKA, M. (2014), Standardized food governance? Reflections on the potential and limitations of chemical-free shrimp, *Food Policy*, 45, pp. 138–145.
- HATANAKA, M., BAIN, C. and BUSCH, L. (2005) Third-party certification in the global agrifood system, *Food Policy*, 30, pp. 354–369.
- HAVINGA, T. (2006) Private regulation of food safety by supermarkets, *Law and Policy*, 28(4), pp. 515–533.
- HENSON, S. (2011) Private agrifood governance: conclusions, observations and provocation, *Agriculture and Human Values*, 28, pp. 443–451.
- HENSON, S. and HUMPHREY, J. (2010) Understanding the complexities of private standards in global agrifood chains, *Journal of Development Studies*, 46(9), pp. 1628–1646.
- HERZFELD, T., DRESCHER, L. and GREBITUS, C. (2011) Cross-national adoption of private food quality standards, *Food Policy*, 36(3), pp. 401–411.
- HIGGINS, V. and LARNER, W. (2010) From standardization to standardizing work, in: V. HIGGINS and W. LARNER (eds) *Calculating the Social: Standards and the Reconfiguration of Governing*. New York: Palgrave Macmillan, pp. 205–218.
- HUTCHINS, E. (1996) *Cognition in the Wild*. Cambridge, MA: MIT Press.
- KAMP, M. VAN DER (2013) Inferring the unknown: enacting organic standards through certification, *International Journal of Sociology of Agriculture and Food*, 20, pp. 109–125.
- LASCOURMES, P. and MARTIN, G. (1995) Des droits épars au code de l'environnement, *Droit et société*, 30/31, pp. 323–345.
- LATOUR, B. (1987) *Science in Action*. Cambridge, MA: Harvard University Press.
- LATOUR, B. (1996) Ces réseaux que la raison ignore: laboratoire, bibliothèques, collections, in: C. JACOB and M. BARATIN (eds) *Le pouvoir des bibliothèques. La mémoire des livres dans la culture occidentale*. Paris: Éditions Albin Michel, pp. 23–46.
- LE HERON, R. (1993) *Globalized Agriculture: Political Choice*. Oxford: Pergamon Press.
- LOCKIE, S., MCNAUGHTON, A., THOMPSON, L.-J. and TENNENT, R. (2013) Private food standards as responsive regulation: the role of national legislation in the implementation and evolution of GLOBALG.A.P., *International Journal of Sociology of Agriculture and Food*, 20(2), pp. 275–291.

- LOCONTO, A. (2014) Sustaining an enterprise, enacting Sustainability, *Science, Technology and Human Values*, doi: 10.1177/0162243914531989.
- MARSDEN, T., LEE, R., FLYNN, A. and THANKAPPAN, S. (2010) *The New Regulation and Governance of Food*. New York: Routledge
- McMICHAEL, P. (2005) Corporate development and the corporate food regime, in: F. BUTTEL and P. McMICHAEL (eds) *New Directions in the Sociology of Global Development*. Amsterdam: Elsevier, pp. 265–299.
- MOURITSEN, J., ERNST, J. and MOLLER JORGENSEN, A. (2000) 'Green' certification as a managerial technology, *Scandinavian Journal of Management*, 16, pp. 167–187.
- NEILSON, J. (2008) Global private regulation and value-chain restructuring in Indonesian smallholder coffee systems, *World Development*, 36(9), pp. 1607–1622.
- OTERO, G. (2012) The neoliberal food regime in Latin America: state, agribusiness transnational corporations and biotechnology, *Canadian Journal of Development Studies*, 33(3), pp. 282–294.
- PONTE, S., GIBBON, P. and VESTERGAARD, J. (2011) *Governing through Standards: Origins, Drivers and Limitations*. New York: Palgrave Macmillan.
- STANZIANI, A. (2005) *Histoire de la qualité alimentaire (XIXe-XXe siècle)*. Paris: Éditions du Seuil.
- STAR, S.L. (2010) This is not a boundary object. reflections on the origin of a concept, *Science, Technology, and Human Values*, 35(5), pp. 601–617
- TALLONTIRE, A., OPONDO, M., NELSON, V. and MARTIN, A. (2011) Beyond the vertical? Using value chains and governance as a framework to analyse private standards initiatives in agri-food chains, *Agriculture and Human Values*, 28, pp. 427–441.