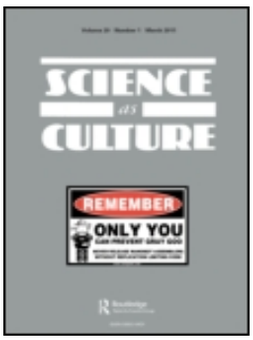

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GUEST INTRODUCTION

Agro-food Crises: Institutional and Discursive Changes in the Food Scares Era

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Introduction

When dioxins were found in milk in the Netherlands in the late 1980s, the issue was framed in the media as an 'environmental scandal' (Eberg, 1997). Waste incineration plants in the vicinity of cattle were identified as the cause of the pollution, and measures were taken in the domain of environmental policy to resolve the matter. When, some 10 years later, the carcinogenic substance was found again, now in animal feed, and made the Dutch headlines again, the dioxin issue was designated a 'food scare' (Laurent, 2006) that put food safety and consumer health at risk.

If we assume that the risks associated with the dioxins remained the same during the time elapsed, then apparently a change occurred in the language and categorisations for making sense of the events. The question is why? Perhaps an answer can be found in the fact that in the same period of time, an entirely new regulatory system for food safety control was set up in Europe. For instance, the UK established a Food Standards Agency, the Netherlands a Food and Consumer Product Safety Authority. Germany established two new institutes, one for food risk assessment and one for food risk management. In addition, the EU established the European Food Safety Authority (EFSA).

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Is there a connection between the observed discursive shift indicated by the anecdote about dioxin pollution and these institutional innovations? If so, what is it? At first glance, the institutional changes seem to 'implement' the discursive shift. In the countries mentioned, a reorganisation of the ministries charged with agriculture, environmental care and public health formed part of the institutional rearrangements that took place. The names of the resulting new departments combine, in various ways, agriculture with such issues as consumer protection and food quality, which is quite unlike earlier days when agriculture was linked up exclusively with such issues as forestry, fishing and nature development. Environmental concerns come in depending on the country at issue. Linking consumer with environmental concerns via the agri-food system is perhaps most explicitly institutionalised in the 2002 EU General Food Law. Designed to regulate food safety, this law covers the entire range of steps involved in food supply, from animal health issues and feed quality on the farm to the product qualities that arrive on the consumer's table.

Interpreting Institutional Rearrangements

How are we to make sense of these discursive and institutional shifts in the area of food? Are they indeed at all related, and if so, how? A starting point to answer these questions is the series of mishaps in the realm of livestock production that Europe witnessed in the final decades of the twentieth century. Outbreaks of classical swine fever alternated with outbreaks of foot and mouth disease, an epidemic of avian influenza, and the identification of a newly defined disease in cattle, bovine spongiform encephalopathy (BSE or 'mad cow disease'). At the same time, incidents of E. coli and salmonella infection—and their greater potential—were widely reported in the mass media. First coined to denote the threat of salmonella infection (see Roslyng, 2011), the phrase 'food scare' became the umbrella term for describing food-borne diseases as well as cases of environmental pollution and risk-prone food production practices, such as the discovery of dioxins in pig and cattle feed or the discovery of residues of a synthetic hormone, MPA, in pig feed, that bore a potential risk for consumer safety.

With such a rapid succession of food-related misfortune against a backdrop of a protracted debate on potential consumer risks and environmental crises, the question arises: what distinguishes this era of food production from previous times? Had the conditions of agricultural production, especially livestock and food handling, drastically changed? Were the risks involved of a novel type, as some academic observers suggest?

It can be argued that indeed agricultural production in general and the production of food in particular changed in some crucial respects in the final decades of the last century. First of all, food trade and livestock transport changed in terms of scale and pace. Since the 1980s, under the influence of

neoliberal European and US political agendas, food production for an international market was promoted at the expense of earlier policies to strengthen national food self-sufficiency in developing countries (Marchione, 2008). Food became among the first commodities to be traded in a fully 'globalised' market (cf. Tansey and Worsley, 1995). The rapid growth in the trade of food and livestock opened up physical barriers that traditionally hampered the spread of diseases.

Secondly, technological developments played a distinctive role in changing the character of the debates on food risks in the latter part of the past century. Among the most noteworthy innovations are the recombinant DNA techniques that enabled the genetic modification of organisms. In the three decades since the first scientific discoveries in this realm, technological progress was accompanied with a continued, heated debate over the safety of genetically modified (GM) crops and their use in food and feed.

It was a technological innovation that drastically altered the perception of the risks involved in the consumption of GM food and thus public demand for non-GM-food (see Levidow and Boschert, 2011). A technical change, in the way ruminant-derived material was rendered in the production of cattle-feed in the UK, lay at the basis of the BSE outbreak as well, affecting almost 200,000 cows by the year 2000. Yet this insight into the causes of 'mad cow disease' was to develop gradually, after the first observations of infected cows. It took quite some time before it was officially acknowledged that the disease was able to cross the species barrier, and the consumption of beef and other cattle-derived products could infect human consumers with an equivalent brain disease (see Paul, 2011). BSE connected the personal, internal nature of the consuming individual and the external nature of 'the environment'. Thus BSE came to symbolise the 'food scares' era (see Loeber, 2011). Consequent changes have been explained and theorised in various ways, as surveyed next.

Realist Perspectives

These two recent aspects of the current agro-food system—that is, the shift from a primarily national to a globalised food system, and technological innovations changing the nature of food-related risks—are often seen as triggers of the recent institutional changes.

For instance:

> the nature of the risks involved in food production and consumption has changed in character. … [A] new category of risks has emerged, of which BSE and genetically modified organisms (GMOs) are the most prominent. The routes through which these risks may affect nature and society are more complex, less 'visible' and less easily detectable than 'conventional'

> risks, and are further distanciated over space and time (Mol and Bulkeley, 2002, p. 186).

Indeed many social scientists identify changes in the very nature of the 'late-modern' food-related risks, thus distinguishing them from previously experienced risks (e.g. Beck, 1992; Giddens, 1999; McNeill, 2000). They argue that the damage and ecological disturbance created by current agricultural production was unprecedented relative to earlier production modes. Current production generates risks that present 'a historical innovation' (Beck, 1997, p. 31) because of their sheer scale and size, as well as their elusive character.

The idea that the recent food crises result from genuinely novel risks is strongly connected to the thesis of 'reflexive modernisation', as developed by Beck (1992, 1997). This is a projection of societal progress in which the political, social and technological structure of present-day society is critically revaluated to allow for a 'second modernity'. Such modernity fundamentally differs from the currently 'simple modernisation', which has resulted in an industrial society that is incapable of controlling the novel risks that it has generated. In this perspective, the new institutional constellations that developed in Europe in the past decade manifest an incipient reflexive modernisation (e.g. Oosterveer, 2002).

Discourse-analytic and Co-production Perspectives

The above realist perspectives posit that a new type of risk which, in combination with a globalising food trade, triggers institutional innovation in a linear cause–effect relation. Such perspectives can be questioned on several grounds. Firstly, it is empirically debatable whether the characteristics described are genuinely novel and exclusive to the recent period. After all, risks related to the (long-distance) transport of feed or livestock have a long history, although perhaps they occurred less frequently.

According to the world organisation for animal health, global waves of veterinary diseases occurred repeatedly throughout the past century. Cattle transported from India to Brazil via Antwerp in 1920, for instance, reintroduced rinderpest to Belgium, causing a major outbreak in Europe (OIE, 1999). Furthermore, the consequences of such disasters in earlier days were no less devastating to the agricultural sector than they were in the final decade of the century. A case in point is the eradication of the foot-and-mouth epidemic of 1967–1968 in the UK, which involved the slaughter of over 200,000 cattle, 100,000 sheep, and 110,000 pigs (Dorman, 1970, p. 68).

A more fundamental critique concerns the alleged novelty of 'modernisation risks'—or 'manufactured risks', as Giddens (1999) calls them—especially in their role of explaining changes in policy and institutions. This realist perspective assumes that changes in ontologically real risks unilaterally affect societal dynamics and institutional change. Alternative perspectives allow for a less

deterministic origin of food crises and institutional changes. While a realist account characterises novel risks as 'invisible, elusive, fearful, yet wholly "real" entities' (Jasanoff, 2010, p. 235), an alternative perspective focuses on how such risks are constructed in the interplay between the natural, technical and social order (Jasanoff, 2004, 2010).

The latter perspective points at the intertwining of a state's capacity to produce political order and its capacity to produce and use scientific knowledge, for which Jasanoff (2004) coins the phrase 'co-production'. While 'underscoring the epistemic and material correlates of social formations', nature comes into focus through and in the constructions of 'the world we imagine to exist beyond our control' (Jasanoff, 2004, pp. 3, 21). The way in which the various spheres of action (science, politics) influence one another co-determines which interpretations of nature—e.g. of environmental crises or food-borne risks—are supported and legitimated by other social practices such as policy-making, consumption practices and so on.

Adopting the co-production concept opens up scope for discourse-analytic perspectives. If indeed the social and the natural are intertwined, it is through language that observers and practitioners can make sense of these relationships. This perspective presents language, and the discourses in which language is ordered, as a relevant object of research. In general, a discourse is 'a specific ensemble of ideas, concepts, and categorisations that are produced, reproduced and transformed in a particular set of practices and through which meaning is given to physical and social realities' (Hajer, 1995, p. 44). Discourse can serve to fix meanings in a social order and institutional arrangements, but can also instead undermine them.

Approaching a research object (such as a food crisis) in terms of discourse means a focus on the way particular developments become 'events' in the very moment they are loaded with meaning. A realist account may see a sequence of events as givens that have to be explained through an additional, meta-discursive framework proposed by the researcher. By contrast, a discourse-analytic research approach focuses directly on the discursive categories by which those involved made sense of these developments. Within the wide scope of discourse-analytic approaches, media representations offer a relevant object of study. In present-day mediatised society, the media play a major role in co-producing images or story-lines engaging nature in the social order. Not only do they juxtapose the media journalistic discourses and scientific discourses, they also present an important arena for contestation for all those—scientists, consumers, policy-makers, producers—who seek to impose their interpretations of reality on others (Hajer, 2009).

A discourse-analytic approach can link the social, economic and scientific dynamics at play in food-related crises. It can show how 'food risks' or 'food safety' become policy discourses, and how their development is intertwined with the establishment of novel food-related institutional arrangements. Novel

ways of perceiving crises and risks can generate new knowledge on controlling them (cf. Sismondo, 2008; see also Feindt and Kleinschmit, 2011).

SaC Special Issue on Agro-food Crises

In this special issue, each contribution discusses a specific food scare (salmonella, BSE, GM 'contamination') and the way they developed in the context of particular national or supra-national institutions. Each in their own way, the contributors adopt a discourse-analytic perspective in analysing the food scare at issue, and the construction of risks and changes in institutions intended to address these. Some contributions give attention to the role of the media in those dynamics; others discuss the processes of sense-making in view of food risks and food risk arrangements on the basis of other sources. A common denominator in all of these contributions: although a realist perspective can help to understand some aspects of those crises, it falls short of explaining which accounts prevailed in public discourse and institutional arrangements.

In her analysis of the media attention for salmonella in egg production in the UK in the late 1980s, Mette Marie Roslyng takes issue with the realist view on the novelty of risks. She develops a discourse-analytic approach to the issue by analysing media coverage of this first time 'food scare'. This approach enables her to argue that the food crisis resulted in what she—adopting Laclau's (1990) poststructuralist reading of hegemony and myth—calls a 'dislocation' of the powerful myths that had thus far maintained the hegemonic industrial food discourse of production efficiency and control. In the wake of this dislocation a definitional struggle over the meaning of risk took place. This event illustrates how food safety became highly politicised. As mentioned above, it was the first time that the phrase 'food scare' was coined to make the headlines. It preceded the BSE affair, discussed in the three contributions that follow, as well as the GM controversy and the food-labelling technique which was introduced as a solution (as discussed in the final contribution).

In their contribution, Peter Feindt and Daniela Kleinschmit too relate how mediatisation and politicisation of food risks, in their case those associated with BSE, went hand in hand. Beyond a focus on the 'myth' itself, these authors focus on the implications of the failure of industrial agriculture. They take the German confrontation with BSE as a basis to explore the heated debate that took place about the management of risks and the responsibility thereof. They analyse the media coverage of the German BSE events and the ensuing debates on who was to blame for what. As they show, the outcome cannot be entirely explained by Beck's (1992) realist concept of 'organised irresponsibility' as characteristic of the 'risk society'; this holds that responsibility for adverse developments that occur due to the way the modernisation system is organised cannot be readily attributed. In the authors' co-productionist reading, public events evolved a 'moral grammar' to attribute responsibility, guilt and blame. Although this

cannot overcome the organised irresponsibility, it is transformed into a new discourse on risk normalisation. In the case under scrutiny, they observe a shift away from the consumer as the initial victim, to farmers as victims rather than culprits. They analyse the development of a new framing of agriculture as problem solver rather than as cause of food-related risks.

By contrast to the previous case studies, Katharina Paul analyses the lack of politicisation over food risks throughout BSE-related events in the Netherlands. This is puzzling, given that BSE triggered much political heat that became manifest in institutional rearrangements in other European countries. There was little politicising of BSE in the Netherlands, Paul argues, due to particular 'sedimented understandings' of food safety, which she reconstructs by means of an analysis of policy discourse. She identifies three contextually specific discourses which play a distinctive role in controlling and demarcating the meaning of 'food safety' in the Netherlands: a technocratic discourse of governance which expresses the idea that a science-based approach to risk is a trustworthy approach; a discourse of market efficiency that frames food safety primarily in economic terms; and a discourse which constructs consumption as a matter of individual choice and private responsibility. These discourses, Paul argues, remained stable during the BSE-years to such an extent that they managed to keep controversial readings of food safety and 'soft issues' such as experience of food at the margins of the political agenda.

The relation between BSE, the institutional rearrangements in the realm of food risks and the media coverage of the BSE phenomenon and its managerial consequences is put centre stage too in the contribution by Anne Loeber. Taking the BSE-related developments in the United Kingdom, the Netherlands and Germany as a point of departure, Loeber contrasts two ways of understanding the dynamics—in realist terms, as a matter of cause and effect, or else in terms of co-production. From a realist perspective, BSE can be argued to have had an impact beyond that of other, contemporary food scares in exposing the limits of the existing risk assessment and risk management systems. Yet in order to understand why it was BSE that implied a revision of historically grown boundaries between the regulatory areas of agriculture and public health, an analysis from a co-productionist perspective is illuminating. A content analysis of media coverage of the BSE-event indicates that the concept of the food chain is invoked and reframed into a 'horizontal interpretation' connecting famers and consumers. Loeber argues that the reframed food chain metaphor offered the possibility of a procedural approach to food risks in the form of 'chain management'. The implementation of the 2002 EU Food Law may be viewed as the institutionalisation of this discursive shift.

In their contribution, Les Levidow and Karin Boschert too address the competing perspectives of a realist and a definitional approach to food risks. They do so by addressing the 'coexistence issue': the complexities of the policy choice to segregate material streams from GM crop production and non-GM-crop production. The authors discuss two competing explanations of why the potential

contamination of non-GM-products and areas with GM-genes came to be understood as a risk conflict. Although a realist reading offers some explanatory basis, it cannot explain essential aspects of the controversy, e.g. underlying assumptions about the risks and relevant control measures. In the managerial discourse of coexistence, risk was identified in economic terms as market dysfunction, making assumptions about economic behaviour by farmers. The alternative 'apocalyptic' frame, promoted by agbiotech critics, featured the notion of 'GM pollution'; this developed into a broader discourse expressing wider threats to human health, the environment, to agro-food systems and even to democracy. At stake were different visions of the socio-natural order, expressed by different accounts of risk, freedom and desirable futures.

Each contribution thus addresses the question phrased above, each in their own manner, of how to understand the discursive and institutional shifts in agro-food crises near the end of the twentieth century. Contributors favour a co-production perspective as providing a more comprehensive explanation. As they also demonstrate, a discourse-analytic approach is a fruitful way of bringing into view the way in which the natural, the technical and the socio-political are observable in continual processes of mutual simultaneous shaping. As a novel way of analysing food crises and their management, this perspective can also provide insights for many other issues.

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