ROUTLEDGE STUDIES IN SUSTAINABILITY TRANSITIONS

Food Practices in Transition

Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity

Edited by
Gert Spaargaren, Peter Oosterveer
and Anne Loeber

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Preface

This book is the result of extensive debates among a team of authors on long-term transformations in food provision and consumption in contemporary societies. It is part of a book series on sustainability transitions which seeks to build "a new, inspiring perspective on sustainable development," as the series' editors John Grin, Jan Rotmans and Johan Schot state in the preface to the series' first volume. The transition perspective entails a multifaceted theory to capture "the complex nature and multiple dimensions of societal transformations implicated in sustainable development." Next to 'energy', 'mobility' and 'healthcare', also 'food' is selected as a societal domain to be explored for the key institutions, actors and dynamics involved in bringing about the transition to a more sustainable future.

This volume seeks to contribute to transition theory by exploring in some depth and detail the transitions in food regimes as happening in OECD countries since WWII in particular. It outlines how the rules of the game for dealing with food are being redefined and transformed under the growing influence of food safety incidents, food security crises, public protests against food-related technological innovations and debates about the globalization of food production and consumption. The book reviews food-related processes of change taking place throughout the whole food chain, from 'fork-to-farm' and even beyond the farm, when analyzing the design of future food production. It documents and assesses transition processes in consumption practices, in the retail sector and in the globalizing networks involved in the production and processing of (also fish-) food. It identifies the groups of actors—companies, consultants, consumers, NGOs, scientific researchers—and the institutions and policies which have to make the sustainability transitions work. It combines a fascination for the role of human agents in sustainability transitions with a special interest in the issue of globalization and (re)localization of food practices.

For this volume, contributions have been collected from authors who have been actively engaged in studying recent sustainability transformations in agriculture, food processing and retailing, as well as in consumption practices. The specific selection of authors enabled a balanced composition of the book. Chapters range from reconstructing the history of current food

regimes to discussing the ways in which innovative practices as emerging in niches might affect the future regimes of handling food. Several chapters set themselves the task to outline the new, alternative food regimes in-the-making and analyze the sustainability strategies deployed by actors both at the grassroots level and within the existing, mainstream systems and networks. Comparable to the volume on mobility in the book series, this volume focuses on dynamics as interactions between (changes in) consumption, retail and production and the roles of different actors. Although the book's focus is on developments in Europe—with a particular attention to dynamics in the Netherlands—it seeks to address globalizing food chains and networks in some detail, thereby illustrating how global and local transition processes are connected in fundamental and consequential ways.

The book includes contributions by 21 authors from different disciplinary and geographical backgrounds. Although written by a large team of individuals, we claim that this volume shows a remarkable theoretical consistency. All contributions are written under the umbrella of a shared theoretical framework, put forward by transition theory and modified and adapted to food analysis by the team of authors. Developing this shared umbrella took place through a process of intensive discussion and collaboration among authors and editors, greatly facilitated by two workshops. The first workshop on 13–14 February 2009, brought together all authors to Amsterdam for an intensive discussion on transition-thinking, on changes in food provisioning and on their prospective contributions to a shared publication on these issues. Draft chapters were exchanged in preparation of a second workshop in Amsterdam on 11–12 December 2009, during which texts and reviews were discussed and suggestions made for finalizing chapters.

Organization of the workshops and the writing of this volume has been made possible through financial support from the Dutch Knowledge Network for System Innovation and Transitions (KSI). The KSI network also created the conditions for very intensive and fruitful debates between the series' editors, the editors of the respective volumes in the series and some external reviewers. We were asked to regularly report on the conceptual framework under development and on the progress made within our team of authors. Several interim presentations in the KSI network resulted in new inputs and useful suggestions for 'our' food book. We want to thank the series' editors John Grin, Jan Rotmans and Johan Schot, the editors of the other volumes in the book series on Sustainability Transitions: Jacqueline Broerse, René Kemp, Derk Loorbach and Geert Verbong and two anonymous reviewers for their valuable comments and suggestions. It was external reviewer José van Eijndhoven who suggested organizing the book in line with our theoretical emphasis on consumers by starting in Part I with consumers, to be followed by Part II on retailers and Part III on producers.

This publication would not have been possible without the practical support by Corry Rothuizen, secretary to the Environmental Policy Group,

Wageningen University. We are also thankful for the practical assistance by Mieke Rossou-Rompen in organizing the KSI workshops. In preparing the final publication, the support from the editors and other staff at Routledge, in particular from Max Novick, has been invaluable and we want to thank all of them very much.

This book is dedicated to Ken Green. Ken Green was professor of environmental innovation management and deputy director for strategy and management at Manchester Business School. His high-profile research included work for DEFRA, the Tyndall Centre and the Sustainable Consumption Institute. Through his excellent work on the interface of technologies and their social/economic implications, he made great contributions not only to academic debates but to public debates as well. Concerned about the social and political implications of science and technology, he helped constitute and establish the emerging field of science and technology studies. His recent work brought him to discuss the challenges of environmental sustainability, including the technological innovations in food provision. Ken Green was initially scheduled to become one of the authors of this book; unfortunately he passed away unexpectedly just before the writing process started. Through the publication of this book we hope to contribute to well-informed reflections on sustainable innovations that were so important for him.

Gert Spaargaren, Peter Oosterveer and Anne Loeber
June 2011

1 Sustainability Transitions in Food Consumption, Retail and Production

Gert Spaargaren, Peter Oosterveer and Anne Loeber

INTRODUCTION

At present, food may come ready-to-eat (through microwave or steam oven) and organic, can be bought in processed and packed form in the supermarket or obtained unprocessed and raw from the farm or the farmers' market. Farmers today may manage high-technological computerized and specialized enterprises or combine food production with running a campsite and keeping hobby horses. Food factories may transform locally produced potatoes into countless varieties of crisps and add their carbon footprint on the package when shipping them to foreign destinations, whereas organic retail chains distinguish themselves by purchasing as much as possible from local farmers.

This present state of affairs in food did not drop from the air. The multiple choices, dynamics and dilemmas which offer themselves to the modern food consumer are the result of a series of delineated transition processes acquiring shape after WWII in most OECD countries. In the post-war period, the production, processing and consumption of food was at first singularly oriented towards increased efficiency and further rationalization. Innovations such as labor-saving techniques (both in agriculture and in domestic food processing), feed conversion and conservation technologies offered mostly undisputed guidance to actors in food production and in agricultural policy-making. Next to regulatory authorities, farmer organizations, powerful processing industries and in particular food retail and catering companies were decisive actors for shaping food practices from farm to fork.

This coherent and integrated framework of values, policies and practices in food production and consumption became increasingly disputed over the years, especially in the period from the 1970s to the 1990s. Currently, the food sector within OECD countries displays some fundamentally different characteristics compared with the situation immediately after WWII:

- The notion of *food-shortage* has disappeared, at least in OECD countries, to be replaced by an 'obesity-regime' based on the omnipresence of cheap food

- More or less elaborate and reliable regulatory regimes for *food safety* have been established to deal with both old and new food risks, whereas at the same time food risks serve as key examples of the ambiguous and inherently risky character of (reflexive) modernity
- *Variety and choice in food* have exploded as a result of the annihilation of time and space in food production and distribution; food has become a multicultural affair
- The food catering and *retail sector* is assuming unprecedented powers in organizing and orchestrating major parts of important value chains and networks in the food sector, while at the same time being unsecure about the directions of change to be taken
- A significant *loss of power* from the side of farmers producing food has occurred under a simultaneous *gain of power* from the side of the citizen-consumers buying and using food; forms of consumer empowerment are only recently becoming used for promoting and safeguarding also non-economic values in food
- Sensitivity among the public has heightened with respect to *animal well-being* and with respect to the huge impacts of food production and consumption on *nature, climate and environment;* this general awareness about sustainability and food has not yet resulted, however, in major changes in food practices
- *Food supply chains have become stretched* over huge distances of time-space, resulting in new power relations to emerge between 'the local' and 'the global' in food provision, retail and consumption; we are, however, far from having reached a new balance in between the local and the global whereas the local, socio-ecological 'rootedness' of food has developed into a central controversy among food scientists and policy makers
- The *cultural dimension* of food has become a central issue in the '*Erlebnisgesellschaft*', with different lifestyle groups using different food practices to articulate their socio-cultural status and (good) taste in different ways

Today, the orthodox consensus on (technological) rationalization and intensification of food production and consumption within a predominantly national and regional economic and regulatory framework seems to have lost considerable ground and is being challenged and partly replaced by a *variety* of new approaches and value-orientations. Economic efficiency and rationalization remain important, but they are accompanied by concerns about food quality and safety, environmental protection and nature conservation and animal welfare as equally important 'organizing principles' around which product innovation and new consumption practices evolve. Local, national and regional (EU) circumstances, identities and relations in (the regulation of) food production and consumption are being supplemented, transformed and partly replaced by global circumstances,

identities and relationships. Where the first part of this story—the disappearance of the post-war orthodox consensus in food consumption and production in OECD countries—can be rather easily documented and assessed, the follow-up question about what will take its place is much more difficult to deal with. The present foodscape is a contested landscape-in-the-making, with many actors, dynamics and uncertainties resulting in a complex configuration of food practices.

The present diversity in orientations and circumstances as it has come to exist in the food sectors incites many questions with respect to the overall process of social change of food consumption, retail and production. Is it still possible to speak of 'mainstream' versus 'alternative' approaches in food provision and consumption? What exactly are the concepts of 'alternative' food products, production processes and lifestyles referring to? When looking at the future of food consumption and production, can we expect a movement from the current situation of diversity into a future situation of more coherence and uniformity again, or should we expect the processes of individualization, diversification and individualization to continue into a constellation of post-modern ways of handling food?

It is against this backdrop that we explore and analyze in some detail present trajectories of change which together make up transitions in food consumption, retail and production in OECD countries since WWII. Among the multiple factors involved in food transition processes, we argue that two factors stand out and make a specific and important contribution to the present day foodscape: sustainable development and globalization.

The need to make both food production and consumption more 'sustainable' has been recognized and accepted by most major actors and stakeholders in the food sector, from Unilever to McDonalds, from the European Commission to the local school board, from vegetarians to meat lovers. Whether in the form of safer food without pesticide residues and GMOs or in the form of natural food enhancing ecosystem qualities, whether sold as fair trade food contributing to social justice or carbon-neutral food contributing to mitigating climate change, environmental arguments are brought into play in the discourse about food production and consumption in a very prominent way. In fact, it could be argued that the need for a sustainability transition in the food sector has been one of the major factors putting an end to the post-WWII consensus on rationalization and intensification.

Where foodstuff up until today has been regarded by many as representing a group of special commodities because of their direct, intricate and inherent connections with the soil, the land, landscapes and local communities, they gradually seem to be losing this status of being a special kind of product under the influence of globalization. The globalization of food production and consumption is challenging exactly the local, natural, land-based (traditional) meanings and attributes of food because of the 'lifting out' of social relations of production and consumption from their local embeddedness (Giddens 1990). As a result, new relationships between

the global and the local are being established. These new relationships are manifest in the specific forms of local food circuits and short supply chains presently under (re)construction as much as they are represented by the global food chains and networks and by the emergence of the global food consumer. Globalization affects both slow-food and fast-food production circuits and lifestyles, although in a different way and to a different extent.

A Transition Perspective for Analyzing Changes in Food

Whichever spectrum of food systems and lifestyles might emerge in the next future, sustainability and globalization will be among their key organizing principles as we aim to show with the help of both the theoretical and empirical arguments gathered in this volume. This book seeks to contribute to a systemic reflection on transitions in food consumption and production as they evolved in OECD countries in the period after WWII. Its major objects of analysis comprise the dynamics of change involved in these transitions. In particular we will look into new images of food adhered to, sustainable technologies experimented with, and new modes of governance involved in the transition process.

When trying to make sense of the historical and future trajectories of changes in food, the authors in this book make use of the theory of transitions and transition management as developed over the past decennia in the Netherlands and some other European countries (Grin et al. 2010). The objects of study for transition theory are delineated processes of change happening in a specific time and space, carried by specific actors who try to block or enhance the transition depending on the interests at stake. Transitions are medium- to long-term (from about 10 up to 50 years or so) processes of change which go to the heart of the matter because they affect the regimes, e.g. the specific rules of the game of food production, retail and consumption. Transitions refer to structural changes resulting in the emergence of new modes of production and consumption. In and through a transition, one can witness a change in the routine behaviors and opinions of all major actors involved: the regulating authorities, the farmers, the managers and workers in the food industry, the retailers, the marketing specialists and the consumers. They change their views, positions and tactics on food within a delineated period of time while addressing a set of issues they all deem relevant for the future of food. As a result of transitions, new power relations are being established among actors in the food chain, who in the new situation use a different set of arguments and technologies to organize and legitimate the food practices they are involved in. These food practices in turn become (re)embedded in different consumer concerns and cultural frames when compared with the situation preceding the transition. The new modalities of food consumption, retail and production as implied in the transition process become institutionalized over time: a new, fundamentally different set of rules and resources for governing

food practices has been established. The pre-transition regime has been replaced by a post-transition regime.

Outline of the Argument

The main aim and object of this volume and the reason behind its composition is to provide an organized reflection on the dissolution of the orthodox consensus in food and its replacement by a new set of food regimes. By using a historical perspective to social change, we are better able to discriminate between the lasting, essential, and the short-term, superficial changes. Transition theory has been developed to make this kind of analysis possible. In the next section we discuss some of the key concepts of transition theory while indicating their specific ways of being interpreted and used throughout this volume. Building upon the general framework offered by transition theory we develop a conceptual model that will be used to discuss and organize the main arguments of the book (third section). Our conceptual model emphasizes in particular some of the (landscape) changes that came about in the second half of the 1980s in OECD countries under the combined influence of globalization and sustainable development. The impacts of these landscape changes are shown to have effects on concrete, situated practices of food consumption and production in OECD countries. These effects are investigated with respect to three dimensions of practices and institutions: the cultural (human-nature) dimension, the socio-technological dimension and the governance dimension. We conclude this chapter by presenting the outline of the book and a short characterization of its authors and chapters (fourth section).

TRANSITION THEORY AS A TOOL FOR ANALYZING SOCIAL CHANGE

Transitions refer to more or less organized processes of change with a recognizable pattern through time and space. Because the theories of transition and transition management were originally developed to deal with complex and persistent problems as they became manifest in the 1990s in Dutch national (environmental) policy, the idea of goal setting and goal attainment has been prominent from its inception. Transitions are considered to be necessary in order to enforce a breakthrough in a deadlocked situation. In order to be effective and successful, transitions have to be organized and managed with the help of good scientific knowledge about the dynamics of change in modern societies. Examples of persistent problems that have become key objects for transitions studies are the car-based mobility system with its problems of CO_2 emissions and congestion (Geels et al. 2011), the fossil-fuel-based energy system which runs up against its limits in terms of resource depletion and climate change impacts (Verbong

& Loorbach 2011) and the systems of industrialized food consumption and production which do not seem able to deal with the emerging environmental and health risks and the new (animal well-being) concerns among food consumers (this volume).

When looking at some of the key concepts and ideas that figure rather prominently in transition (management) theory, it is important to bear in mind its origin. We will not provide an exhaustive debate of transition theory (see Grin et al. 2010) but point out four topics which deserve analytic attention in the context of this volume on transitions in food consumption and production: i) transitions as the organized change-over into a new set of socio-technical regimes, ii) the role of technology and agency in transitions, iii) the Multi-Level Perspective (MLP) as a methodology for studying transition dynamics at different levels of scale and iv) the role of sustainability and globalization as key factors co-shaping the emerging foodscapes in reflexive modernity.

i) Transitions As a Change of Socio-Technical Regime-Sets

Transitions relate to the emergence of new ideas, frames and discourses as well as to new products, objects, technologies and infrastructures. They are cultural and ideational next to material and infrastructural. Because of their roots in Science and Technology Studies (STS), the first formulations of transition theory (Rip & Kemp 1998; Schot et al. 1994; Schot, 1998; Rip 1992; Geels 2002, 2005; Elzen et al., 2004) tended to emphasize the key role of socio-technical innovations and material infrastructures. Without a close look at the technologies involved, the car system, the energy system or the food system cannot be analyzed properly, so it was argued. Although transition theorists try to avoid technological determinism by referring to *socio*-technical regimes and by emphasizing the key role of human actors and their values for bringing about the transition, the technological dimension of social systems are regarded to be of central importance and as a fruitful starting point for the analysis of social change. And for good reasons, so it seems. Whoever wants to change the car-based mobility system or the energy system has to confront the (constraining) impacts of technologies and infrastructures on the future development paths these systems will follow.

After more than a century of R&D, of huge investments by both private and public actors and with user routines now deeply embedded in culture, it is impossible to make the transition towards a radically different mobility or energy system overnight. The 'sunk costs' that went into these systems (the roads, the network of fuel stations, the piped and wired systems for the transport of energy), the vested interests of key stakeholders (car manufacturers and oil companies are high on the list of the most powerful TNCs worldwide) and—last but not least—the addictive routines of end-users of cars, air-conditioners and central heating installations all function

as 'lock-in' mechanisms. They represent the 'constraining' aspects of socio-technical systems because they exclude or leave out of sight alternatives which radically depart from the existing situation, its infrastructures and user routines.

Lock-in effects prevent the switch-over to a new system, or socio-technical regime, even when some of the negative side effects of the present constellation have become manifest and many actors and stakeholders in society have become aware of these (unintended) negative consequences. In order to realize social change in these contexts, the dominant, existing socio-technical regimes have to be gradually challenged by new ideas, technological innovations and ways of doing. Old, mainstream or established socio-technical regimes have to be substituted by a new set of socio-technical regimes. The innovations prefiguring and enabling the establishment of such new socio-technical regimes tend to develop best in the context of 'strategic niches'. With the help of strategic niche management (SNM), the early innovations are most of the time protected from the dominant regime with its unfair forms of competition, which so often characterize the early phases of the development of a technological innovation. Only when a certain number of successful innovations and a critical mass of alternative options have become available, the dominant regime is really 'challenged' and a process of transition towards a new (set of) regime(s) is set in motion. So innovation is conceived first and foremost as a process organized around niche-regime interactions. This so-called 'bottom-up view' of social change is a key characteristic of most transition studies, although it is recognized that some 'landscape changes' (as for example a rather sudden increase in energy prices worldwide) might act as important triggers for transitions because they make room for niche innovations to be more easily developed into new regimes. Figure 1.1 shows the basic elements of transition theory and the crucial principle of the de- and reroutinization of socio-technical regimes over time.

From our discussion so far it can be concluded that transition theory is about:

- Characterizing the major (negative) side effects that come along with the present, dominant regimes of (capitalist, industrial) production and consumption
- Identifying the socio-technical innovations which could in principle help remedy side-effects not by ad hoc incidental and fragmented approaches but instead by establishing a set of new overall regimes governing production and consumption in a radically different way
- Specifying conditions for the successful emergence and development of socio-technical innovations at the level of strategic niches
- Investigating the process of dominant regimes becoming challenged (or not) by dominant regime actors who are (proactively) responding to niche innovations of all kinds

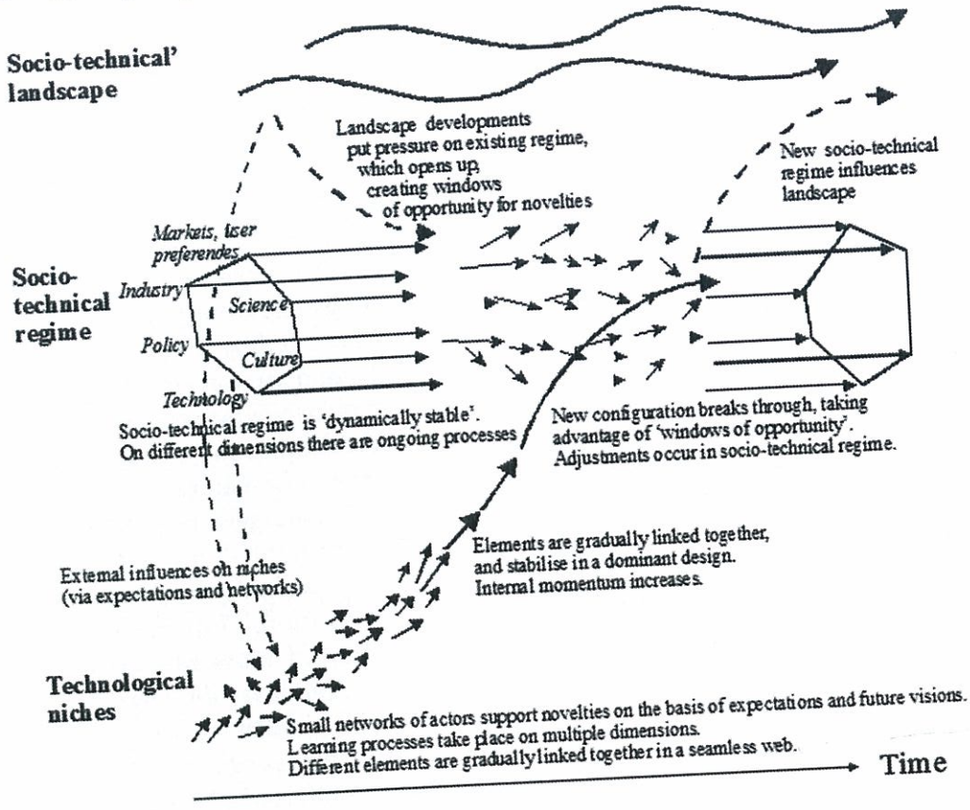

Figure 1.1 Multi-Level Perspective on transitions (Geels 2002: 1263).

- (Co)designing, analyzing, modeling and understanding the different kinds of development paths which can be shown to result from the specified forms of niche-regime interactions
- Characterizing the (landscape) conditions triggering, blocking or facilitating the successful establishment of new socio-technical regimes

ii) The Role of Technology and Agency in Transitions

The language of transition theory fits well into the tradition of system theories within the social sciences. Its emphasis on technology and technological innovations makes it look like transition theory is underscoring the influence of human actors on processes of social change. The values, behaviors, motives and interests of human actors seem to be regarded as second order phenomena only. For example the 'user preferences' as distinguished in Figure 1.1 represent only one dimension of a socio-technical regime, sharing this analytical position with no less than six other, mainly 'institutional' or 'systemic' variables. As a result, the key role of human agents as the prime and ultimate 'carriers' of transitions is receiving only

minor attention. This tendency to pass over the role of human actors as the ultimate sources and carriers of change has been especially manifest in the earlier formulations of transition theory (Schot et al. 1994; Geels 2002). In more recent formulations (Grin et al. 2010; and especially Grin, this volume) it is recognized that (intentional) human behavior is fundamental to the analysis of social change and should be given a more central position in the conceptual models used in transition studies.

Building upon and contributing to the more recent—agency inclusive—formulations of transition theory, we will present a conceptual model in the next section for the study of food transitions, which puts social practices at the heart of the analytical model that is used to organize the argumentation put forward in this transition book. By taking *practices* and not socio-technical *systems* as our key units of analysis, it is emphasized that transitions are (wo)man-made phenomena, although not under the circumstances of their choice and without any guarantees with respect to the outcomes.[1]

Transitions are processes of change with a certain focus, orientation and direction that are all formulated, put forward and defended by designated (groups of) human agents. This strong emphasis on human agency or subjectivity, however, does not imply that transitions just result from or are brought about by the intentional efforts of human actors in a linear fashion. Technological infrastructures, cultural frames or unequal power relations may 'talk back' to the intentions and interests pursued by groups of actors. Material and social structures at different levels of scale facilitate some options and goals while constraining others in some circumscribed respect. Hence, the human-actor-based processes of designing, framing, monitoring and managing social change should be given proper analytical weight without lapsing into 'voluntarist' explanations of transitions. The main challenge lies in acknowledging human actors as being central to processes of lobbying, steering, learning about and co-producing transitions while at the same time appreciating the complex, multiple and in some respects inherently unpredictable nature of transitions as resulting from the co-evolution of both human and non-human factors and dynamics.

Although emphasizing agency in transition processes, a practice based approach does not build only or primarily on the 'conscious choices' of individuals as suggested by psychological and economic accounts of social change in particular. Human action is not 'conscious' all of the time, because our daily life is constituted by sets of routine behaviors which are enacted by human agents without always consciously considering the reasons behind the (original establishment of the) routines and some of their unintended consequences. Transitions bring about and are partly founded upon series of de- and reroutinization of social practices in everyday life. Human action also does not imply *choice* in a way as suggested by microeconomic theory in particular. A social practices perspective instead emphasizes the social,

shared, embedded and contextual nature of human behavior. Next to most of the choices being 'taken for granted' there also exist configurations of choice that are prestructured in the sense of including and promoting some choices while discouraging or simply excluding others.

iii) The Multi-Level Perspective (MLP) as a Methodology for Studying Transition Dynamics at Different Levels of Scale

Transitions are multilevel and multi-actor phenomena and the complex processes involved are not predictable in a linear fashion. This credo of transition studies has an obvious truth in it but is in need of further specification in order to also become a useful device for organizing empirical research with respect to situated transitions in, for example, the food system and its many actors, levels and institutions. As discussed above, many studies on transitions consider 'situated changes' and favor a bottom-up approach by focusing on niche-regime interactions which result in new regimes being established as a consequence of niche innovations developing into elements of a new, mainstream regime. In processes of niche-regime interaction, human agency and actor-technology interactions do not pose too many theoretical and operational problems because the actors involved and their daily routines are easily identified. The examples offered in this volume range from NGOs or innovative farmers establishing short supply chains or a fair-trade labeling regime to supermarkets (Tesco, Wal-Mart, Albert Heijn) and major processors (Mars, Unilever) introducing eco-products or switching over to more sustainable production and distribution processes.

Less obvious from a theoretical point of view is the conceptualization of 'socio-technical landscapes' in the MLP scheme, as represented in Figure 1.1. Especially in the earlier formulations of transition theory there was a tendency to assign to the landscape level the constraining role in social life (think about the lock-in effects of energy or mobility infrastructures as mentioned above) and by mapping into the landscape level all the factors which are supposed to be out of reach and beyond the control of situated groups of actors. By loading the concept of landscape with the constraining aspects of structures that are beyond control of agents, transition theory in its earlier formulation tended to fall victim to the classical dualism between structuralist and voluntarist explanations. In this volume, we emphasize the need to avoid working with such a dualism between agency and structure and—following the later formulations of transition theory in this respect—to conceive of agency and structure as a duality instead. Agency and structure are two sides of the same (interaction) coin, as it has become accepted as mainstream knowledge in sociology after the path-breaking work of Anthony Giddens, Pierre Bourdieu and other so-called structurationist thinkers in the 1970s and 1980s on this topic.

According to the MLP, practices and the structures implied in them can be grouped into three categories which show increasing levels of institutionalization. The concept of institutionalization refers to the stability of interactions over time and space. Practices can be said to be more stable and institutionalized when their interactions and power relations show consistent or recursive patterns in time-space. When making use of the MLP as one of the key methodological instruments of transition theory, we argue—following John Grin (this volume) in this respect—that the concepts of niche, regime and landscape correspond with three levels of institutionalization of practices under study. First, 'novel practices', or 'innovative practices', studied primarily but not exclusively at the niche level are selected and analyzed by the researcher because they preshadow the rules and resources of a new regime-in-the-making. Its new behavioral rules and power relations are not yet broadly used and are unknown to most of the actors still operating within the existing, dominant regimes. Second, 'regime practices' or 'well-established practices' could be defined as practices and systems which are more widely known and used by groups of actors. They are characterized by rules and resources which cover a wider span of time-space and which show more and stronger interdependencies with other institutions and practices. The interdependencies between practices are referred to by Elizabeth Shove among others in terms of a 'nexus of practices' which can be studied with the help of the notion of 'coevolution' (Shove 2003; Shove & Walker 2007). Practices or interaction systems are approached in terms of specific chains and networks which show characteristic, more or less stable patterns or regimes in time-space. In food studies, these kinds of patterned series of food practices are referred to by some as food net-chains (Viteri 2010).

So when innovations in practices are studied from a niche-level or a regime-level point of view the methodological starting point can be said to be different. The prime focus of the analyst can be either on the innovative (novel, niche-based) or on the established (regime or mainstream) sets of practices. When using the perspective of the niche level, the differences with the existing regimes or mainstream practices and institutions are highlighted both with respect to the motives and interests of their participating actors as well as with regard to the 'structural aspect' of new power relations and meaning-frames which are foreshadowed by the innovative practices. When taking instead the institutionalized, mainstream practices as analytical starting point, the emphasis is on the relative openness to change of the mainstream regime as well as on the lock-in mechanisms implied in the existing nexus of practices. For changing an interdependent set of practices which are well established and adhered to by most of the powerful players, different dynamics of change have to be taken into account when compared to analyzing changes in practices at the niche level. Practices within well-established regimes tend to be reproduced by

mainstream actors even when the (negative) side-effects of their functioning have become visible and recognized by many. Persistent practices and innovative practices are to be found side-by-side when working at the level of regimes.

The third mode or method of analysis focuses on dynamics of change at the landscape level as representing the most sedimented or anchored regimes by far in time-space. When dealing with landscape dynamics we are referring to 'organizing principles' (Giddens 1984), which characterize and affect all the major institutions in a society in a certain period of time. When using this perspective, the emphasis is on (transitions in) the basic institutions of society over longer time-periods. These institutions can be socio-cultural (changing views on animal welfare), socio-economic (liberalization and privatization) or socio-political (transnationalization of politics) in character. The more practices are affected and the more enduring the impacts, the closer we are to landscape dynamics being at play. In this volume, we will use the term foodscape when discussing the dynamics of change at the highest level of institutionalization of practices.

By distinguishing between the three kinds of methodological approaches to the study of practices or institutions, we are able to make full use of the MLP scheme without lapsing into the separation of agency and structure that kept the social sciences busy and divided for such a long time. The distinctions being made and the MLP categories mentioned refer to the methodological starting points used when studying transitions. A significant number of chapters in this volume address niche-regime interactions in an explicit and detailed manner, using the MLP-based methodology as their major tool (Roep & Wiskerke; van Amstel et al.; Oosterveer & Spaargaren; Bos et al.; Bush & Belton; Klintman & Boström). Though sharing a focus on niche-regime interactions, some chapters take a bottom-up niche-regime perspective (Roep & Wiskerke) whereas other chapters deal with similar processes of change from the perspective of the dominant regime (players) being challenged by niche innovations (van Amstel et al.). Finally, there are a number of chapters addressing landscape dynamics relevant for understanding food transitions (Grin; van Otterloo; Marsden). We will discuss landscape-level factors and dynamics in some more detail in the next subsection.

iv) Exploring Sustainable Development and Globalization as Landscape Dynamics

Two factors or dynamics are singled out when studying transitions from a landscape point of view. They both refer to changes affecting most of the major practices and institutions within OECD societies and have gained prominence and academic status since about the mid-1980s.

The first factor was coined by the 1987 Brundtland report as 'sustainable development' (WCED 1987) and is used in many transition studies

as key motivation behind and overriding principle in governing specific transitions. Because transition management in particular was developed in the context of Dutch environmental, energy and climate policies, the 'ecological dimension' of sustainable development has been given pride of place from the beginning. This emphasis on ecological sustainability is a key element which transition theories share with ecological modernization theory (EMT) as it was developed in the environmental social sciences from the 1980s onward in Europe (Mol et al. 2009). With the help of both social and ecological criteria, EMT aims to specify the conditions for sustainable production and consumption as mapped out in the Brundtland report.

The environmental criteria for sustainability are debated in OECD countries in particular since the start of the environmental discourse initiated by the Club of Rome report and the first world conference on the environment in Stockholm in 1972. The criteria range from situated norms for the separation of domestic waste or the procedure for making a proper LCA for a concrete product or service to the more encompassing notions of the closing of material cycles and the use of precautionary principles. When taken together, these criteria represent the new body of knowledge, or the new rules of the game, of sustainable production and consumption at all levels of scale.

Because of the landscape-like dynamics of the sustainable development principles, transnational companies (TNCs), small- and medium-sized enterprises (SMEs), households and consumers sooner or later will have to confront the challenges of sustainable development and to make the switch to a more sustainable mode of producing and consuming. Because it is envisaged that within a few generations actors and organizations worldwide will be judged not just for their economic and social performance but for their ecological performance in a routine, taken-for-granted manner, we are dealing with a 'transition-in-the-making' which should be studied and documented at the landscape level as well as on the level of niche-regime interactions.

Since the 1970s, many cases of more or less encompassing regime changes towards sustainability have been documented as resulting from niche innovations organized by ENGOs, households, proactive companies making use of the special 'niche level' arrangements—subsidies, tax incentives, stimulation of best practice policies, etc.—made available by governmental organizations at (inter)national, regional and local levels. Serious disagreement exists among environmental social scientists about i) the possibilities-in-principle for realizing such a (landscape-level) switch towards sustainable development, and about ii) the actual levels of ecological modernization being realized so far in concrete countries, within industrial sectors and in the context of specific consumption domains (York 2004). Also, in the case of food production and consumption both the 'in principle' question and the '(lack of real) progress' question with respect

to the ecological modernization of existing practices and institutions have influenced the sustainable food debate to a considerable extent. With the help of the 'foodscape' concept and using the distinction between novel/innovative practices and established or regime practices, we aim to investigate the scope and impacts of sustainable development principles and elements on the present-day organization of food practices.

The second major 'landscape factor' affecting all (also future) institutions and practices to a considerable extent is referred to as 'globalization'. An intensification of the process of globalization has occurred, especially since the end of the 1980s. Within the social science literature the 'globalization transition' is regarded by many authors as the result of three more or less simultaneous processes happening in the second half of the 1980s: the fall of the Berlin Wall ensuing the end of the cold war, the fast development and spread of the Word Wide Web (www) and the increased influence of neo-liberalism and market-based regulation at least in OECD countries (Giddens 1990; Held & McGrew 2000; Beck 2005; Castells 1996–1997; Sassen 2006). Following Ulrich Beck (1987) in this respect, we suggest a fourth major event to be added to this list: the partial meltdown of the Chernobyl nuclear reactor in the Ukraine. This disaster led to an anthropological shock (Beck 1987) among the European population about the arrival of the risk society as a crucial dimension of the new dynamics of reflexive modernity.

The combined effect of these processes has been so strong that the landscape of modernity seemed to be going through a transition process itself—the landscape dynamics that represented the post-WWII phase of 'simple modernity' has been replaced by a new set of dynamics representing the institutional make-up and outlook of the present phase of 'reflexive modernity'. The notion of reflexive modernization is derived from the works of Ullrich Beck and Anthony Giddens (Beck 1992; Beck et al. 1994) who coined the term to indicate discontinuities with respect to the coordinates of the phase of simple modernity. These coordinates refer to the nation-state as the core power container and main organizer of politics in society, to the upholding of a clear distinction between society and nature and to the use of a neat distinction between undisputed scientific knowledge on the one hand and lay-actor beliefs and rationalities on the other (cf. Beck et al. 2003). More or less since the Chernobyl disaster of 1986 these basic assumptions of simple modernization have been shaken up and gradually dismissed.

The ensuing process of reflexive modernization brought a redefinition of the (managing) role of the nation-state, a new understanding of the relationship between societies and their physical environments and a different role for science and technology in the modernization process. Both Beck and Giddens have analyzed in some detail the process of the 'radicalization' of modernity, exploring what it means to accept living with risks and

uncertainties and to scrutinize the modernity process itself by including potential and future risks in decision-making processes at all levels. In the works of both authors, the key factor behind the transition from simple to reflexive modernity is globalization. Under the influence of globalization, social relations are lifted out of their local contexts, being stripped from the meanings and identities they gained under the conditions of simple modernity. In reflexive modernity, all social relations of (food) production and consumption are becoming stretched out over global levels of scale. As a result, in principle all local processes happening in the space of place are affected by globalization and more in particular by the processes developing in the space of flows (Castells 1996–1997). There is no escape possible from the new dynamics of reflexive modernity. Understanding the connections being (re)made between localizing and globalizing dynamics in the present phase of reflexive modernity can be regarded as the main challenge and analytical task for the social sciences (Oosterveer 2007). The concept of 'glocalization' is used to express this central importance of local-global-local interfaces. In the discourse on sustainable food consumption and production, the connection between local and global dynamics and processes is among the most pressing issues, as we illustrate in this volume.

A CONCEPTUAL MODEL FOR STUDYING TRANSITIONS IN FOOD PRACTICES

How does one investigate in concrete empirical research the rather abstract processes and dynamics represented by reflexive modernity? Is it possible to pin down the asserted impact of sustainability and globalization on everyday practices and on institutions involved in food consumption and production? We think this to be possible and aim to illustrate this by documenting transitions in food practices in the present era of reflexive modernity in a number of specified ways. In the ten chapters, we discuss empirical and historical observations with respect to the development of new regimes for food production, retail and consumption. New regimes, characteristic for the present phase of reflexive modernity, can be studied at the level of niche-regime interactions and take specific shape under the influence of globalization and sustainable development.

The conceptual model used throughout this volume shows a number of constituting elements (shown in Figure 1.2). First, at the center of the model are food consumption, retail and production practices. Second, these practices are under the direct influence of globalization and sustainable development as pervasive landscape dynamics, or 'global attractors'. Third, transitions in food practices can be specified with respect to three dimensions in particular: the socio-cultural dimension, the socio-technical

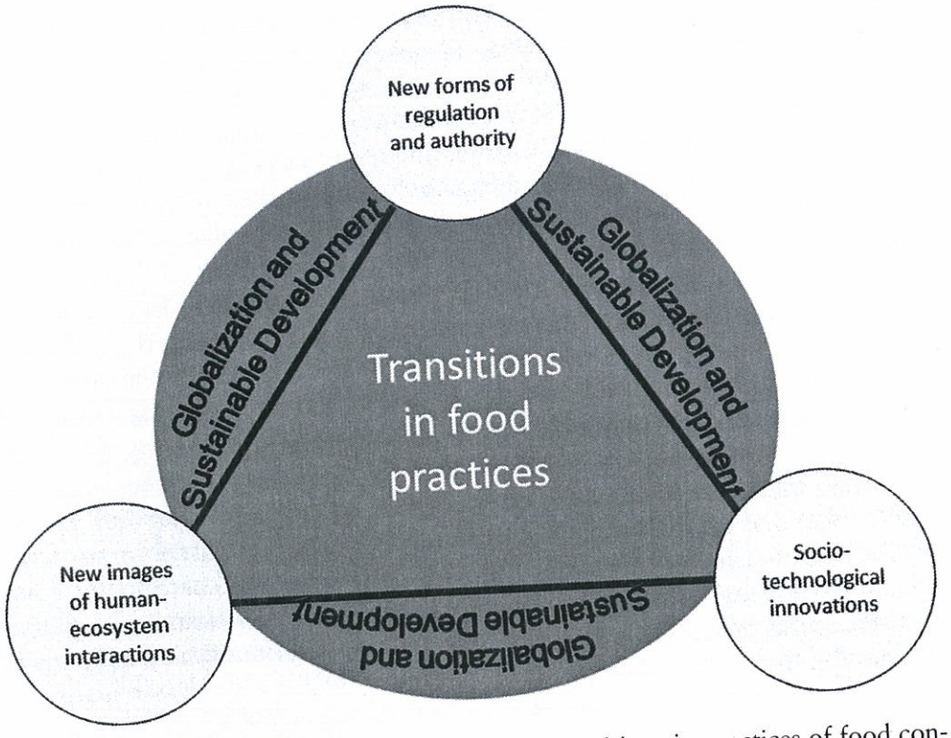

Figure 1.2 Analytic framework for describing transitions in practices of food consumption, retail and production in reflexive modernity.

dimension and the policy or governance dimension. We will shortly elaborate on the different elements of the model.

Transitions in Practices

We seek to apply the concept of transition, discussed in some detail in the previous sections, in a more direct way to food practices. By using the concept of practices (and not notions as regimes, systems or institutions), we aim to emphasize that also food transitions are the result of human interventions, although the consequences of these interventions cannot be predicted from the intentions of (groups of) human actors in any direct, predictable or linear way. Social practices of food handling can take many forms. We distinguish between three main categories of practices in this volume: practices of i) food production and processing, ii) food distribution and retail and iii) food consumption. All three kinds of food practices are constitutive and interconnected elements of food net-chains: the networks and chains involved in the consumption and production of food.

A farmer producing wheat or milk follows a number of routines which have designated time-space characteristics. Milking cows or harvesting grain can be regarded as practices with specific patterns that result from a number of factors related to the size of the farm, its family structure, the season, the machinery used, etc. Although not identical, practices of grain harvesting are 'similar in kind' among many arable farmers in France or Germany or comparable European countries. These practices share a socio-technical regime in the sense that farmers know how to do it, when to start, how to deal with the risks involved and how to live up to the expectations of colleagues, farmer cooperatives and private contractors. The different 'styles of farming' (van der Ploeg et al. 1992; Wiskerke & van der Ploeg 2004) followed by individual farms can be seen as variations on a shared, common set of possibilities, conditions and requirements put forward by the technology, the market, local culture, the EU-CAP framework and similar factors.

At the other end of the food chains or networks, consumers or citizens also follow established routines for handling food. When we go eating out (Warde & Martens 2000), when we go shopping for food (Oosterveer et al. 2007) or decide to spend a substantial part of our weekend in our kitchen to cook for friends, we know the rules which structure our actions and we are aware of the skills and resources needed to make these food routines happen. When cooking for friends, for example, we tend to make something fresh and special, using a famous recipe from grandmother or the latest fashionable cooking program as source of inspiration. We make sure to have everything bought from the store in time, while planning the cooking activities in advance in order to end up with the right mix of eating and socializing after the friends have arrived, etc.

Producer and consumer practices are both structured by rules and resources applied by actors in a routine-like way. Producer practices, however, differ from consumer practices in some crucial respects because they are situated at different segments or sections of food chains and networks. Inspired by the food chain metaphor in particular, a distinction is made between 'upstream' and 'downstream' practices. Producer practices are referred to as practices at the upstream end of the food chain, whereas consumer practices are located at the downstream end. Although they are part of the same food chains or networks, they differ with respect to the logics or rationalities dominating the practices under study. At the upstream side of food chains, 'system rationalities' tend to dominate, whereas consumer practices at the downstream end are predominantly led by 'life-world rationalities' and logics. The third kind of food practices we discuss in the book are food retail and distribution practices and they are positioned in between upstream and downstream practices. This implies that in some retail practices—for example shopping in a retail outlet—both up- and downstream dynamics and factors are at play. They form a kind of hybrid

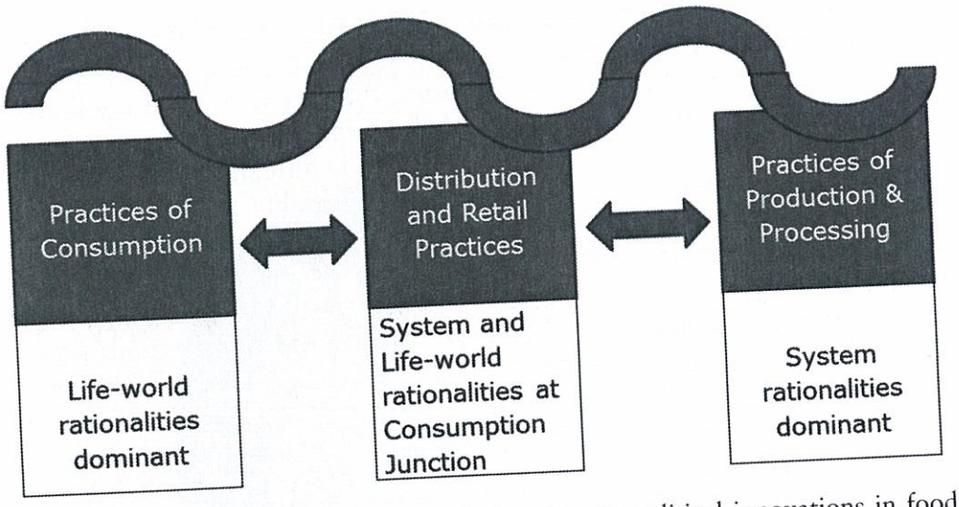

Figure 1.3 Socio-technical, socio-cultural and socio-political innovations in food chains and networks: three types of practices.

in between life-world and system rationalities and are referred to in the literature as 'consumption junctions' (Schwartz Cowan 1987). Figure 1.3 displays the different parts of food chains and networks and the rationalities they represent.

The Consumerist Turn: 'Farm to Fork' Becomes 'Fork to Farm'

In most visual representations of food chains and networks, the producer-side is projected on the left, whereas consumers are depicted on the right-hand side of the scheme. As with the concepts of upstream and downstream logics it is implied that it all starts with production. In the research labs, the best way of organizing agricultural production is established and subsequently made accessible to the farmer with the help of professional extension services. Retailers pass on the foodstuff to the consumers who are happy to utilize them as provided. Expert systems basically can be said to have controlled the food chain and its legitimation, and this powerful position was based on their scientific approach to safe and healthy food.

The top-down, science-based organization of food provision and consumption was characteristic for the early post-war period of simple modernity. As discussed above, the transition into reflexive modernity as it can be said to have happened around the mid-1980s disturbed this picture in a profound, irreversible way. Nowadays the power relations and interdependencies between producers, retailers and consumers are framed with the help of a different language, resulting in different emphases.[2] This time the consumers are taken as the main starting point for discussing and analyzing food practices. Their willingness to pay for sustainable products and their

emerging concerns for safety, climate mitigation, animal welfare, health and sustainability all become part of the guiding principles for the design, production and provision of food to an increasing extent. The expression 'farm to fork' (in Dutch: *van grond tot mond*) has turned into its reverse: 'fork to farm' (*van mond tot grond*), thereby indicating that a process of chain inversion is taking place. In order to understand (transition) processes in food chains and networks, one has to start with the 'empowered', demanding, concerned consumer and read from his or her food preferences and practices the best way to (re)design the chains and networks for food consumption and production (Bos et al., this volume).

Because of this consumerist turn in food chains, we depict consumers at the left-hand side of the chain, regarding them as the starting point of analysis in the context of this volume. Therefore we have chosen to present the three main parts which constitute the book in a specific order of appearance: we start in Part I with the consumer and end in Part III with the producers, with the retail chapters in Part II in between.

Globalization and Sustainable Development as 'Global Attractors'

Sustainability changes in food production, retail and consumption practices all bear witness of *and* contribute to the globalization of networks and chains for food production and consumption. Maps of the production process of even the most ordinary products—such as a yogurt dessert or a steak—show that these networks are nowadays continental or indeed supracontinental in scale (cf. Tansey & Worsley 1995). This straightforward observation holds several implications for the description and appreciation of the changes in food consumption, retail and production discussed in the book.

First of all, globalization and sustainable development influence all three key dimensions or dynamics of food practices in reflexive modernity. They affect both the cultural, technological and governance dimension of food. For example, the development of food safety control played a crucial role in abstracting food consumption from its production process and enabled the regulation of food trade on a global scale. Once developed, the technological possibilities for checking the quality of food stimulated *private* food regulation (e.g. HACCP and GlobalGAP) as well as supranational standardization such as that crystallized in the Codex Alimentarius, the food sector's main reference point for standardizing product and food safety definitions on a global level. With the technical means to do so, the food industry became a front-runner in experimenting with self-regulatory systems (Henson & Caswell 1999). The refinements of informational and regulatory technologies such as product labeling (enabling consumers to make informed choices) stimulate new consumption practices. Vice versa, consumer concerns over animal welfare or food safety (often in response to outbreaks of animal diseases or media attention for health risks) trigger

technological innovations in the primary sector (such as improved housing conditions in livestock farming) and the processing industry (e.g. new slaughtering methods for cattle).

Secondly, the processes of globalization and sustainable development are as permanent as they are dynamic: They play a role in all major food practices from consumption via retail to production and vice versa (Ingram et al. 2010). Food practices cannot escape the dynamics of globalization and sustainability, although the effects and consequences are different at the different segments of the food chains. When, for example, a group of consumers 'goes local' and seeks to move away from the ever increasing scale of food production that lifts food out of its local context; globalization dynamics can also be read from their conscious efforts to break away from dominant developments. So also when 'going local' or 'slow food' and 'short supply chains' are under study, the dynamics of globalization will appear in the descriptions of changing practices sooner or later.[3] The clusters of practices we selected for in-depth analysis in this volume all represent the more abstract dynamics of globalization and sustainable development as they can be shown to operate at different levels of scale, from the global 'space of flows' down to the local 'space of place' and vice versa (Castells 1996–1997).

Thirdly, the dynamics of globalization hold implications for the relationships between clusters of practices that were considered to become more and more separated and disconnected during the phase of simple modernity. Globalization results in a specific way of re-connecting farmers, consumers and retailers, while attributing new roles and identities to each one of them. Take for instance the technological developments regarding labeling. These developments re-establish and reinforce the contacts between producer/processors and consumers of food, regardless of the geographical distance between the two. In the process it attributes to the consumer responsibilities in risk management, for example the capability of being able to make an informed decision on the basis of relevant information via the declaration on a food product (Loeber & Hajer 2007; Klintman & Boström, this volume). At the same time, the consumer's (perceived) wishes become a leading organizational principle for setting up research and other activities in the production sphere. Large retailers have adopted the role of acting as the most capable 'translator' of what they consider to be relevant consumer concerns into guidelines for primary production and processing.

Transitions in Food Practices Investigated for Three Basic Dimensions

When investigating transitions in food practices against the backdrop of reflexive modernity, we focus on three sets of variables, variables which refer to and help explain the change-over to reflexive modernization in the realm of food. The variables refer to three distinct dimensions of practices

and are displayed in the three corner circles of Figure 1.2. All food practices in transition can and should in principle be discussed and researched for i) the new cultural images of human-ecosystem interaction they represent, ii) the socio-technological innovations they depend on and help produce and iii) the new forms of governance which tend to go along with them. We will shortly discuss the three dimensions of practices and the kinds of transition dynamics they illustrate either under the influence of broader landscape changes or as the result of niche-regime interactions organized around specific cultural, technological or governance innovations. For all (dimensions of) transition processes we refer to the relevant chapters in the book.

Cultural Images of Human-Ecosystem Interactions

Among the most striking characteristics of present day developments in the cultural dimension of food practices are the *variety* in value orientations (or *Leitbilder*) that have come to rival the once commonly endorsed focus on rationalization in agricultural production, profitability in food processing and retail and efficiency and cost reduction in consumption. Persistent societal and environmental problems, but also concerns about personal health and animal well-being, have come to play key roles in consumption- and production-related decision-making. The multitude of views expressed in these various spheres seems to defy attempts at unification or even categorization into 'mainstream' and 'alternative' food practices.

As Anneke van Otterloo shows in her chapter on the history of consumer concerns on food, the focused, delineated and anti-industrial perspective once represented by the alternative, organic food movements in Europe has been replaced by a much more diffuse, multilayered and less grassroots-like commitment with 'sustainable' food from the side of the consumer. Also in the sphere of production we witness similar developments. Organic agriculture still represents a clear-cut alternative to industrialized food production, but nowadays exists in the company of other 'sustainability' images of agriculture. Two 'alternative' perspectives which gained recognition are agricultural production as a multifunctional activity essential for the future of rural areas in Europe and agricultural production as a technology-intensive form of so-called precision agriculture (Green et al. 2003). Retailers seem to prefer the use of images of 'nature' and 'naturalness' when promoting food products rather than images of more sustainable food technologies. The romantic view of farmers as being embedded in nature and using (only) 'natural' processes and principles seems oddly remote from existing production practices and goes along with a diminishing familiarity of most consumers with everyday life at the farm.

In reflexive modernity, concerns about food (risks) have both increased and diversified at the same time, with climate concerns about food and issues of animal well-being figuring as the items that have been added to

the food agenda in recent times. Next to the risks and concerns about food, also the positive experiences of food have increased. Celebrating food and using food in the context of all kinds of personal and social celebrations have taken on new dimensions. In the chapters by Grin and by van Otterloo (this volume), in particular, the cultural dimension of transitions in food practices is discussed from a consumer perspective.

Socio-technical Innovations in Food Practices

Technological innovations, and shifts in the organization of the knowledge-production infrastructure, are among the major driving forces behind the changes observed in post-WWII food production and consumption (Bieleman 2000; Grin, this volume; Bos et al., this volume). In agricultural production, developments were characterized by high external input agriculture as well as innovations oriented towards raising the productivity of land, animals and labor. This resulted among other things in a progressive separation between different production activities, i.e. between animal production and crop cultivation, and to an even further specialization within these activities. Developments in food processing and retail show intricate linkages with the evolution of conservation techniques enabling the storage and distribution of food over longer distances in time-space. The development and adoption of cooling technologies, resulting in 'cold chains' from farmers to fridges, are a case in point (Green & Foster 2005), as well as the control systems for monitoring the safety of food and guaranteeing public health and safety. Both developments were contributory to an upscaling of the production and processing industry and a dramatic increase in distances 'travelled' by food (half)products between production sites and places of consumption. At the consumer side of the spectrum, we witnessed the introduction of the freezer, the fridge and the microwave and a whole range of smaller devices for the storage, preparation and consumption of food (Shove 2003).

Again, this rather well-established post-WWII regime for production, retail and consumption of food is increasingly challenged by the side-effects which came along with it. Food risks and food scares in the 1980s and 1990s seemed to result in diminishing levels of trust of consumers in 'modern' food technologies and their expert systems. A large number of food experiments and innovations as discussed in this volume have as their core the reinvention of effective trust arrangements between food consumers and the technologies and experts representing food systems (Kjærnes & Torjusen, this volume). The emergence of all kinds of local, short food supply chains (Roep & Wiskerke, this volume) and the impressive growth of (eco)labeling technologies in the context of global food chains (Bush & Belton, this volume; Klintman & Boström, this volume) are discussed as two prominent examples of efforts to restore and even to reinvent the balance of trust and risks with respect to food among consumers.

The Governance of Transitions in Food Practices

In the post-WWII period, along with the extension of food trade networks, public regulation expanded rapidly. The development of an open European market and the creation of the European Union in 1958 and the subsequent introduction of its common agricultural policy (CAP) initially strengthened and later came to replace existing national institutional structures surrounding agriculture. Interestingly, whereas initially the EU system strongly promoted a further rationalization in agricultural production, nowadays the EU seems to take the lead in promoting change in agricultural production and rural development from a public health and consumer perspective, and in prompting fundamental innovations in the regulatory system of food (Marsden, this volume). EU food policies belong to the first generation of international policies in food, which combine a supranational character with a high level of legitimacy and effectiveness. As is shown in the chapters by Marsden and by Bush and Belton in particular, the present-day global character of food production and consumption tends to bring us beyond the existing regulatory powers of the EU and the US and ask for a new, deterritorialized, cosmopolitan perspective on the (state) regulation of the global foodscape.

The shift in governing responsibilities from the national to the supranational levels tallies with the neo-liberal dynamics of a hiving off of responsibilities for food safety from the state to non-state actors. The regulatory responsibility remaining with the state (and the EU) even builds on the adoption and formalization of private-sector-based regulation. The thus emerging framework increasingly attributes actors in the business of producing, handling, processing and distributing food an identity as important co-regulators of food policies. Market-based governance can be seen as a trend in the (increasingly private-public) regulation of food practices (Klintman & Boström, this volume; Bush & Belton, this volume).

With food governance becoming a cosmopolitan and (also) market-based affair, the role of citizen-consumers is no longer restricted to voting for the right party or demonstrating against mega-sheds for animal production. Next to the public, political responsibilities and commitments, citizen-consumers increasingly co-govern by voting with their wallet. The popularity of wallet-cards for sustainable meat, fish and other food as discussed by Oosterveer and Spaargaren in this volume is rooted in the emergence of political consumerism as a new, consumer-driven form of market-based governance for (more sustainable) food.

AIM AND OUTLINE OF THE BOOK

This book aims, firstly, at contributing to the understanding of empirically observable changes in all three clusters of food practices—food consumption, retail and production—in relation to one another and in relation

to the sets of variables identified. These variables—changing images of human-nature interaction, socio-technical developments and developments in the regulatory arrangements of the food system—serve to help analyze the dynamics observed, yet at the same time the book seeks to elaborate these as 'drivers of change' on the basis of the empirical material collected here. With that, the book's objective is, secondly, to contribute on the basis of empirical work to the explanatory framework of transition theory as it was developed in the context of the so-called research network on 'system innovations', an originally Dutch program which developed into an international network in recent years. Herewith this publication fits into the larger book series of the KSI (Knowledge Network for System Innovation and Transitions). The authors discuss their findings while engaging in an open debate with this emerging field of transition theory. They seek to explain their observations in terms of the theory and provide comments on the theory when building on their empirical accounts. Hereby they raise questions such as: To what extent and in which respect can the socio-technical and cultural changes under study be regarded to represent transitions towards a new, more sustainable regime for the consumption and production of food? Can the efforts of actors to guide and steer changes in food practices be understood as forms of transition management, and what can be said about the direction and time-space span of the governance arrangements under study? Thirdly, this volume traces and discusses the emergence of new ideas, technologies and governance using two methodologies in particular. Some authors discuss new food practices explicitly against the backdrop of the landscape dynamics of globalization and sustainable development. They seek to relate the empirical changes in food practices under study to the (landscape) changes that occurred in OECD countries since the mid-1980s, resulting in a switch-over from simple to reflexive modernity. Most chapters and authors, however, take as their prime objective the innovation dynamics as they are methodologically situated at the interface between innovative niche practices on the one hand and the dominant food regimes and their key actors on the other.

This volume is published in the context of a book series on sustainability transitions. It aims to make a specific contribution to this book series not just by addressing transitions in the food sector, but also by exploring in some detail the theoretical issue of 'agency in transitions'. Because of this wish to bring to the fore and theorize about the role of consumers, NGOs, householders, shoppers and other groups of agents engaging themselves with transitions in particular ways, the book can be said to have a bias. It prioritizes certain issues and concepts over others. For some, this might look like a negative bias in the sense of downplaying or neglecting the crucial role of production structures, dynamics of research and technological development in the agricultural sector and power issues, like the concentration of power in the hands of a limited number of food multinationals. As shown in Part III of the book in particular and discussed in the concluding

chapter in more detail, we are aware of these landscape changes and their impact on situated practices of food consumption and production. We do consent however that the theme of (consumer) agency in transition studies deserves a (more) central place and stands in need of further conceptual clarification and specification. By putting consumer agency center stage and by approaching the theme from different angles in a significant number of chapters (both in Part I and Part II) we made an effort to show the theoretical and empirical relevance of consumer agency for transitions in the food sector. As will be discussed in the concluding chapter in more detail, we claim to in this book detect, unwrap, de- and reconstruct different forms of consumer agency without lapsing into individualist perspectives on agency in transitions. By discussing consumer agency as a complex, multidimensional, bounded, mediated, contextual phenomenon, we hope to contribute to the debate on agency in transition studies also outside the food sector.

In the chapter immediately following this introduction John Grin provides a historical reconstruction of the modernization of the Dutch food sector. At the hand of this reconstruction he illustrates the usefulness of the transition perspective for analyzing changes in food production, retail and consumption. Transitions in agricultural production practices took shape, so he argues, not just under the widely documented influence of technical innovations and the spreading of new scientific insights. To a considerable extent it was also a government-initiated and -organized affair, with Europe and the US Marshall aid program each contributing in a specific way. By looking at the changes in consumer-based food practices in the 1950s and 1960s, Grin is able to illustrate the mutual interdependency of the modernization of production and of consumption. He confirms the recent thesis from Sassatelli (2007) that changes in consumption do not passively result from changes in production, also when discussing transitions in food. Consumers display agency, both individually and in organized movements. What turns out to be decisive for the post-war food transition, however, was not consumer agency in itself or in isolation but the emergence of the 'modern retail sector'. This sector acquired the powers to (co-)shape strategies and preferences of both farmers and consumers to a considerable extent. The informative historical account that Grin delivers with respect to the emergence of the modern foodscape forms the crucial backdrop to the more recent changes in food networks and chains in Europe as they are discussed in Parts I, II and III of this volume. Each part consists of three chapters highlighting a specific segment of the food chains and networks.

Part I contains three chapters dealing with changes in food practices from a consumer point of view. The chapter by Anneke van Otterloo illustrates the emergence of consumer concerns for 'sustainable food' using a detailed and historical perspective. Using the Dutch situation as her prime reference, she is able to show that sustainability with respect to food is a multilayered concept. Sustainability in the food sector can best be conceived of as a 'quality of qualities' that has emerged in the context of social movements—the

alternative/organic food movement, consumer movements and of course environmental movements—fighting against what they regarded as crucial failures of industrialized food provision and consumption. The chapter by Unni Kjærnes and Hanne Torjusen discusses the issue of consumer trust in food and in the expert systems behind food provision. Using the theory of Beck on the emergence of the risk society as their main point of reference, they argue that also—and perhaps particularly so—in the food sector consumer trust comes under pressure as a result of the switch-over from simple to reflexive modernity. They use results from European surveys to discuss actual empirical trends in levels of trust among European consumers. By looking into the organic food movement in more detail they are able to show that alternative movements in the food sector are driven by anxieties and concerns about modern food risks in particular. The chapter by Mikael Klintman and Magnus Boström analyzes in thorough detail the ins and outs of labeling systems for (sustainable) food. The rapid emergence and growing popularity of all kinds of eco-labeling systems can be considered as representative for recent changes in food supply systems. Eco-labeling is regarded crucial for (re-)establishing trust in food among mainstream consumers. In reflexive modernity however, trust cannot be built with the help of the (objective, scientific, unambiguous) information contained in labels and certification systems alone. Consumers in reflexive modernity can and should be invited to look beyond the supermarket shelves and their eco-labeled products while engaging themselves with the uncertainties and risks of present- day food production in a non-trivial way.

Part II contains three chapters focusing on the distribution and retail dynamics of food chains and networks. The chapter by Peter Oosterveer and Gert Spaargaren can be seen as a chapter connecting the consumer and the retail theme in a direct manner. They provide a theoretical discussion on the role of consumers in transition processes and then go on to investigate in some depth three different roles which citizen-consumers can play in food transitions. Becoming involved in direct sales through short supply chains is discussed next to the actual buying of organic food in specialized shops and the involvement of citizen-consumers in different forms of political consumerism to encourage sustainable food supply by conventional supermarkets. In the follow-up chapter by Peter Oosterveer the focus is on the changing role and powers of global retailers. When and how did they manage to become such powerful regime players and in what ways do they make use of their (orchestrating) powers to contribute to the greening of global food supply chains? Next to the historical and empirical analysis of the retail sector this chapter also demonstrates how the role of retailers and caterers as key suppliers of sustainable food can be investigated in some detail with the help of the social practices approach. The third chapter in Part II on retail practices is written by Mariëtte van Amstel, Suzanne van der Pijll and Gert Spaargaren and deals with the current state of affairs in the Dutch retail food system when it comes to sustainability transitions.

The authors apply the theoretical concepts of transition theory to elaborate the management of food transitions from a practitioners'—especially consultancy—point of view. Their focus is on the role of companies as mainstream actors defending or transforming the existing, dominant food regimes. Niche-regime interactions and landscape pressures are analyzed in direct relation to the strategies of the mainstream regime players. Processers, coalitions of producers and major retailers are put at the center of analysis and a number of in-depth case studies are offered to illustrate the size and nature of their green provisioning strategies and concerns.

Part III is entitled 'Transitions in Production Practices' and contains three chapters analyzing the changes taking place in the organization of food supply chains under the influence of localization and globalization tendencies in particular. In the chapter by Dirk Roep and Johannes Wiskerke the key focus is on bottom-up, local and regional innovations in (short) food supply chains. They discuss a series of cases which could be considered seeds of innovation that challenge the existing, dominant regime in globalizing, industrial food provision. From the case study analysis they derive as well some theoretical insights on the concepts of regime and niche in transition theory. The chapter by Bram Bos and his colleagues discusses innovation in the animal production sector from the perspective of design and development. With the help of a number of interesting case studies and pilots, which attracted a lot of attention over the past years in Dutch politics and media, they illustrate two points which are of direct relevance for the study of transitions in food production. First, in the mediation between niche and regime levels of change, the design—both as an object and as a process—of new production facilities can be shown to play a crucial role. Second, design processes in reflexive modernity take on specific characteristics which make them distinct from design processes in simple modernity. Instead of the classical top-down expert-led design process, nowadays 'reflexive design' is constructed as an interactive matter of trying to (re) shape not just (hardware) technologies but user needs and preferences as well. The third chapter by Simon Bush and Benjamin Belton serves as a key example of thinking about transitions in the context of global food chains and networks. Their main topic is about the new forms of (voluntary) regulation—labeling systems, certification schemes—emerging in fish chains connecting small producers in Asia with environmentally concerned consumers in Europe. Using a political ecology perspective on transitions, they discuss in rich detail some of the environmental but in particular also the social side-effects of the emerging eco-regulatory regimes for fish. Regulating fish means establishing new power relations and mechanisms of control in globalized food chains.

The volume is concluded by two chapters which 'make the balance' on food transitions in different ways. First, there is a chapter by Terry Marsden, which takes a long-term perspective on the history and future of the (European) food system and its regulatory regime. In order to discuss major

transitions in the food sector, Marsden distinguishes three periods. The post-WWII phase of productivism came under pressure in the mid-1980s because of (the disturbing effects of) food surpluses and the building up of pressures related to (the lack of) sustainability in food provision. As a result, the public, government and EU-managed food system was re- and deregulated into a new, hybrid, or 'compromise', regime which combined economic growth and profits with an increased attention for sustainability concerns under the primary responsibility of private corporate actors. This hybrid model lasted for over two decades but came under pressure around 2007/2008 when a global awareness—some say even a shock—emerged with respect to the limits to growth in food and about the consequences of long-term energy shortages for the food sector. The new food scarcity together with the unsolved sustainability issues of the compromise regime are responsible for the building up of pressure on the present-day food regime. This may perhaps result in a radically different regime for the coming future. Because there is a definite wish to not just leave things to the neo-liberal and global market actors, transition theory can and should play an important role in analyzing the new regulatory regimes, their dynamics of change and their main actors. The final chapter by the editors of this volume also makes the balance in two specific ways. First, the empirical balance is drawn when discussing the main findings of the individual chapters from the perspective of the overarching theme of transitions in food consumption, retail and production. Second, the balance is made with respect to the value of the conceptual model as derived from transition theory and put forward as a key analytical tool for studying transitions in the food sector. Finally, a brief discussion is presented with respect to the future of food consumption and production from a global and sustainable development perspective.

NOTES

1. For an elaborate discussion on practice theories in sociology and its application in environmental sociology, see Giddens (1984) and Spaargaren (2011) respectively.
2. Needless to say, the shift in analytical and discourse orientation does not automatically imply that the unequal power relations between consumers on the one hand and retailers and producers on the other have undergone major changes. Consumers do not make decisions on investment, design or assortment in any direct way even when being empowered with information and new forms of exerting political pressure on upstream actors in food chains and networks (Spaargaren & van Koppen, 2009). The increased power of retail is discussed in the chapter by Oosterveer and in the concluding chapter of this volume in more detail.
3. A nice illustration of these inevitable local-global dialectics or dynamics is provided by the so-called 'transition towns movement' as it developed in the first decennium of this century in the UK and some other European countries

in particular. Food practices figure prominently in these networks and they are organized in order to make possible the relocalization and re-embedding of food production and consumption in the urban communities. The transition town networks themselves, however, can best be analyzed as just another form which the globalizing city networks can take nowadays (Kern & Bulkeley, 2009).

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