Food Systems, Consumption Models And Risk Perception In Late Modernity*

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INTRODUCTION

The food system is undergoing profound changes, at the level of production and consumption models. Economic theory on the one hand, and sociological and anthropological theories on the other, give different interpretations of the changes, but these often do not confront each other. Moreover, within sociology, with regard to food, '(a) curious, if implicit, division of labour seems to have established itself… On one side are rural sociologists who study the organisation of agriculture and its variable local forms, and on the other, sociologists of food who locate themselves firmly within the sociology of consumption' (Tovey 1997:21).

This paper is an attempt to bridge the gaps between and within disciplines concerned with food production and consumption, which is made possible as a result both of the utilisation of consolidated traditions of studies and new theoretical perspectives. In fact, while for some time the French school of Malassis (Malassis 1979; Malassis and Padilla 1986; Malassis and Ghersi 1996) has been analysing the agro-food system from a perspective that takes into account the results of economic, sociological and nutritional disciplines, the more recent economics of conventional forms (Allaire and Boyer 1995; Boltanski and Thévenot 1991; Revue économique 1989; Thévenot 1995; Wilkinson 1997) offer new opportunities for understanding the complex phenomena linked to food production and consumption.

The objective of this article is then, to link different readings of food consumption and food production problems. Special attention will be given to problems of risk and risk perceptions that are central concerns of both reflexive modernisation theory (Beck 1999; Beck, Giddens and Lash 1994; Giddens 1991) and food consumers in late modernity.

In the first section, I will present the relevant definitions and propose a short synthesis of the evolution of food systems in industrial society. Then the main features of the agro-industrial food system are presented, with particular reference to the work of Malassis and his school. The following section will deal with the most recent 'satiety' model of food consumption. The economic analysis of convergence and differentiation will be compared with the sociological analysis of risk perception and the de-traditionalisation, fragmentation and individualisation of food consumption (Beck 1999; Giddens 1991). Risk perception and de-traditionalisation leads to the culinary disorder that Fischler (1990) effectively names *gastro-anomia*. In the third section I will utilize the economic conventions theory in order to discuss the consumers' new strategies of trust reconstruction in their relationship with food. Finally, some concluding remarks will be made on the necessity and the opportunity to formulate an integrated theoretical approach to the analysis of the late modern food system.

THE AGRO-FOOD SYSTEM: DEFINITIONS AND EVOLUTION

The concept of a 'food consumption model', first elaborated by the French school headed by Malassis (Padilla and Thiombiano 1996), is one of the most successful attempts at unifying economic, social and cultural perspectives in the analysis of food consumption. It refers to consumption as a process with different stages, comprising: how and where food is acquired, what is acquired, how food is prepared, how and where it is eaten, and how wastes are disposed of. Provisioning of food is strictly linked to foodstuff availability and exchange capacity which, in turn, are linked to the food production system. The consumption model is the demand side, while agro-industry is the supply side of the food system.

In the tradition of the Malassis school, the agro-food system is defined as the set of interdependent elements that work together towards the end of satisfying food needs of a given population in a given space and time. The elements and activities are shown in Table 1:

Table 1. Economic processes, social actors and objects in the food system

Economic processes	Social actors	Objects
Land cultivation/ animal breeding	Family/Farms	Agricultural good
Agricultural product transformation	Family / Agro-food company	Industrially transformed product
Conservation / distribution	Family/ Distribution firms	Agricultural products and industrial food
Food preparation	Family/ Agro-food firms / catering / restaurants	Service food (convenience food)
Consumption	Family/ Restaurants	Served food

Waste management	Family/ Public and/or private system firms	Organic and inorganic residuals

The complexity of the system derives from the large number of elements that are part of it, as well as from the varieties of domains and social subjects involved: family, state, market, and all the productive sectors - agriculture, industry and the tertiary sector. Elements and system structure change in time and space. The evolution of society and the economy leads to a succession of models of food consumption (Malassis and Allaya 1996; Padilla and Thiombiano 1996): from the traditional (the poverty model), to the agro-industrial (which implies the substitution of richer proteins of animal origin for poor proteins of vegetable origins), and to the satiety model (Table 2). Each system is defined in relation to a dominant production system and a consumption model that is consistent with it, although the shift from one system to the other does not imply the complete disappearance of the preceding one. The persistence of different models makes more complex, and thus difficult to interpret, food system in late modern societies.

Table 2. Main food consumption models

Activity	Traditional model	Agro-industrial model (modern society)	Satiety model (late modernity)
Production	-simple reproduction family farms - agricultural employees are a very high proportion of the total population	-the inputs and the agricultural product transformation are industrialised -the farm is integrated in the agro-food industry - agriculture employees are a small part of the total employees	-heterogeneity of techniques and flexible specialisation -the agricultural production process itself may be industrialised (biotechnologies) -re-evaluation of traditional techniques
Distribution	-local markets - exchange of food inside the community and parental groups	-international, global markets - *access to food* regulated by markets and entitlements (income, land ownership…)	-modern distribution has the most active role in the supply chain - segmentation of global markets
Preparation	- in the family, at home	- also outside home, at the workplace, in restaurants, etc.	- industrialisation and market provisioning of ready-to-consume food (catering, convenience food)
Consumption	-local choice, according to availability and status -nutritional inequality inside the society - abundance and scarcity alternate, depending on seasons and crops	-mass consumption of standard, durable food - nutritional inequality between, more than inside, societies	- individualisation, de-traditionalisation and fragmentation of consumption styles - de-structuring of meals -eating out
Ideological status, identity of food	-man at the top of food chain -agriculture as the material and symbolic base of life - symbolic value of food, as distinctive of 'us' and 'the others'	-science and technical change give legitimation to the exploitation of nature - food as edible industrial product, coming from a filière, with no identity	-science and technology are considered doubled-edged and lose their legitimation power - risk, food safety concerns question the industrial techniques - food looks for identity

Source : elaborated from Beardsworth and Keal (1997) and Malassis and Ghersi (1996).

THE EMERGENCE OF THE AGRO-INDUSTRIAL FOOD MODEL IN MODERN SOCIETY

The traditional food consumption model is linked to a society of generalised poverty. Both the system functions and social actors are limited in number. It is a very simple system, based on self-consumption, where one actor predominates: the producer-consumer. Farm and family are strictly intertwined, so much so that is possible to deal with them as a unit: the family farm. The market is limited to local exchanges. Diets are differentiated by income levels, between rich and poor. Diets of poor people are characterised by foodstuff with low energy values, mainly vegetables (cereals and tubers). Preparation and consumption take place inside the family, their forms and organization revealing of gender and power relations.

Personal proximity between producer and consumer constitutes the basis of trust in the production process and the quality of food. Furthermore, traditional agriculture, constrained by the territory and linked to the natural cycles of seasons, carries a sense of participation and identification with nature. Traditional techniques strictly link man to nature.

The emergence of the agro-industrial model of food production and consumption (through a transition period that lasted many centuries, from the late middle ages to the twentieth century), leads to the disappearance of self-consumption and to the provisioning of industrial food through the market.

The market, a new collective, enters the scene. The food system becomes more complex, and the network of relevant subjects becomes longer. Through processes of industrial appropriation and substitution, the domain of agriculture is limited; agricultural product transformation activities are appropriated by industry, while products and producers are subjected to processes of substitution; vegetable fats for animal fats; sugar beet for sugar cane; European with American producers; industrial products for agricultural products, etc. (Friedmann 1993; Goodman, Sorj and Wilkinson 1987; Kautsky [1899] 1958).

At the general economic level, we are living at the time of industrialisation and sector differentiation of the economy. Agriculture no longer produces final products and it loses its links with final consumers. It becomes instead an economic sector producing intermediate goods for the agro-food industry. Upstream, it loses its link with nature, as techniques are increasingly determined by industrial inputs rather than by seasonal and territorial constraints or by the biological characteristics of the production process and the cultivated species. Inasmuch as the market becomes the relevant place of food provisioning, trade and distribution acquire a prominent role.

Mass consumption prevails, based on standardised products. Friedmann and McMichael (1990) talk of a 'Fordist diet', whose central element is the 'global steak' produced by a transnational *filière*. For the majority of the population in rich countries, consumption of calories increases, while calories of animal origin substitute for calories of vegetable origin. The former reach about 40 percent of total final calories, making the model very costly from an energy point of view[1].

At the level of spatial organisation of society, this model implies urbanisation, pushed to an unprecedented scale by industrial development. The greater part of population, no longer self-sufficient for food, breaks its links with agriculture and establishes the *demand* in the market for food.

While industrial transformation of agricultural products becomes generalised and food markets international, consumption becomes more remote from seasonal and locality constraints. Products come from different parts of the world, from territories with different agricultural vocations and with 'out of season' times of production. The family is still the privileged locus of consumption, but consumption outside the home acquires relevance, as meals consumed at the workplace or at the restaurants.

Industrial food is the new-born object: industrial logic prevails and leads to standardisation, de-seasonalisation and de-territorialisation of food. Food becomes, in Fischler's vocabulary (1990), *a not-identified edible object*. Distance and durability (Friedmann 1993), that is the ability to last in time and to travel in space, become the essential characteristics of the new goods, determining a new meaning for quality, consistent with the industrial convention.

FOOD SYSTEMS AND CONSUMPTION MODELS IN LATE MODERNITY[2]

The early seventies are generally considered as a watershed: these years bring the crisis of the Fordist regime according to regulationists, a new technological paradigm according to economic evolutionists, and the beginning of post- or late modernity, according to general sociologists.

In the analysis of food systems, we may date the crisis of the agro-industrial model from this period. The economic and political roots of the crisis lie in the emergence of transnational capital, with the consequent crisis of the nation state, and in the spatial and structural modification of the economy. At a structural level, the crisis appears as the de-structuring of meals and the predominance of service (retailing, catering, restaurant, etc.) over the industrial sector.

Malassis's French school refers to the emergence of a new model, specific to societies at the stage of satiety. Whereas the agro-industrial model is a growth model, the satiety stage is characterised by the saturation of energy intake and the stabilisation of food expenditure over total expenditure. On the supply side, the emergence of a flexible production system, the rationalisation of distribution (which becomes the 'big organised distribution system'), and overall, a commodification of relations in the sphere of food preparation and consumption, take place. Following the generalised participation of women in the labour market, foodstuff progressively incorporates services (that is, different stages of preparation work) and become convenience food for the microwave oven or served meals in restaurants. Structured family meals lose importance, while snacks and meals consumed outside the home increase. Market relations extend to the kitchen and the table and, in the terminology of Goody (1982), retailing, rather than industry, acquires a bigger role in the food chain.

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[1] …fast food is not an efficient way, from an energetic point of view, to feed people. The success story behind the recent "superchicken" is entirely based on a feed containing not only maize, soybeans, sorghum and other high- protein content feed plant, but also animal products, predominantly fish flour. ... From the point of view of nutritive value, all these feed plants, together with the fish flour, mean that the average American chicken eats better than three quarters of world population (Harris 1990: 126)

[2] Arguments in this paragraph draw from an earlier article (Fonte 1998).

The three models (traditional, agro-industrial, satiety) are presented in the literature as a sequence of stages, that eventually leads to convergence in the most advanced model. Convergence may be justified on the basis of the biological characteristics of food consumption, which poses a limit to the ingestion of food by the individual, a limit that nutritionists indicate at about 2500-3000 final calories. As Engels showed in the second half of the nineteenth century, as income rises food expenditure tends to account for a smaller percentage of total income, and to stabilise at about 15-20 percent of the total expenditure (Blandford 1984; Connor, 1994). Nonetheless, convergence is also a social phenomenon and indicates the trend towards homogenisation of consumption styles, i.e. not solely *what* we eat, but also *how* we eat (Fanfani and Salluce 1997; Gatti and Migani 1997).

Blandford (1984) provides interesting documentation of convergence in the structure of diet in OECD countries, with relation to consumption of calories and the share of animal calories in the total. A decade later, Connor (1994) illustrates dietary convergence, taking into account large combinations of products, which oppose fresh to transformed food. Here convergence refers to the general diffusion of industrial and service products in the diet of rich countries, fostered by the globalisation of the food processing and distribution system. Convergence is not only a matter of what is eaten, but of where products are bought (at the supermarket) and where the food is eaten (outside the home).

In Connor's article, as well as in other works (Appadurai 1988; Goody 1982; Padilla and Thiombiano 1996), it seems that what is in question is the persistence of national diets on one side, and the emergence of horizontal differentiation between transnational social groups, on the other. National dietary models converge, but a new differentiation of consumption styles emerges between social strata characterised by different socio-economic and cultural positions (Miele 2001). The socio-economic differentiation relates more to lifestyles than to income. It concerns an urban or rural life style, the position of women in the labour market, the size and characteristics of the family which add to the search for time-saving food, the destructuring of family meals and the parallel increase of meals consumed outside the home. Cultural variables, relating to dimensions of pleasure and ethics, are also particularly important. Food consumption becomes for the *active consumer* the means both to fight environmental degradation and to pursue the protection of material and immaterial resources (local techniques, products, knowledge) on the one hand, and the search for subjective welfare, in its material and immaterial aspects (health and diversity of tastes) on the other (Belletti and Marescotti 1995).

Convergence towards increasingly similar consumption models is not seen to be in contradiction with an increasing variety of food, made possible by both the intensification of exchange and the dominance of transnational corporations in the food distribution industry (Belletti and Marescotti 1995; Gatti, Finotello and Moretti 1996).

INDIVIDUALISATION AND DE-TRADITIONALISATION OF FOOD CONSUMPTION

A paradox seems to emerge from this debate: it appears to conclude that diets become more different at the same time that they become more similar. One way of reading this paradox is the shift from 'model' to 'style'. While 'consumption model' is a concept that refers to a social group (a community, a nation), style refers to the individual behaviour. The individual, in his/her food consumption behaviour, loses any reference to any objective belonging, to a family, a social group, a class, a community. He/she is driven only by his/her subjective choice, of an ideological, hedonistic nature. Style choices are *negotiated* among a diversity of options, in a plurality of contexts and authorities (Giddens 1991: 5)

If the industrial society is based on classes and social groups, defined by their relation to the productive process (the working class, bourgeoisie, petty bourgeoisie, etc.), in the post-industrial society, social classes are fragmented in groups or strata according to subjective criteria (age, gender), ideological criteria (religion, beliefs), or consumption styles (Miele 2001). Food consumption is subject to the individualisation process of reflexive modernisation (Beck *et al.* 1994), a process which adds up to the complex nature of food consumption.

In food systems, in fact, change is not irreversible (Wilkinson 1993). This is particularly evident when product innovation is introduced. The new product does not eliminate the old one, as in most industries. On the contrary, traditional, 'natural' products remain the quality standard for the industrial food product, traditional farm products remain side-by-side with the new industrial products (Fanfani, Green and Rodriguez Zuñiga 1993; Wilkinson 1993).

The heterogeneity of the productive structure in the agro-food system makes it possible to speak, as Byé (1998) suggests, of *a nature-oriented technical system* (small agricultural farms, transformation and distribution firms) which operate side-by-side with an *industry-based technical system*, identified with agribusiness and the transnational distribution corporations.

Finally, at production, exchange and consumption levels, many differing conventions persist: a domestic convention, where economic actions are co-ordinated by a network of personal relations (the product linked to a place); an industrial convention, based on standardisation; a commercial convention, driven by price competition; an opinion convention, functioning on the basis of a company brand, and a civic convention based on the sharing of common principles.

On the consumption side, food must at the same time work as a marker for identity and belonging (to a family, a community, a place), and as class, ideology or life-style identifier. In the industrial process though, food is deprived of any identity, and is standardised and de-territorialised. A tension derives from the perception of the link between food, the biological world, nature and a specific culture on one , and food as industrial standardised product and exchange value, on the other.

What the economists see as convergence toward the satiety model and the sociologists see as a fragmentation of consumption styles, is for the anthropologists, the expression of a profound crisis in food consumption models. Food consumption is represented by the latter as characterised by many tensions: between neo-philia and neo-phobia (Fischler 1990), between health and illness, life and death (Beardsworth and Keil 1997). The traditional food system elaborates these tensions through stability. Changes in food habits in traditional societies are rare and gradual; culinary rules are consolidated in a local tradition, empirical knowledge and ethno-medical practices evolve slowly, and beliefs and customs work at legitimating what is edible and what is not.

In contrast, late modern society pushes towards change in a frantic way; the crisis of traditional forms of family, participation of women in the labour market, new forms of work organisation lead to de-structuring of meals; technical change, changing nutritional or scientific indications determine, maintain and foster a sense of anxiety in relation to food.

The industrialisation of production and transformation of food, and the globalisation of markets, bring closer diets that used to be very distant, augmenting the possibilities of individual choice. Technical change eliminates from the food system any locality and seasonal constraint, separating agriculture from nature and the consumer from its familiarity to places of production and productive techniques. Food production and transformation is now carried out far away from the eyes of the average consumer, who buys and consumes food with unknown ingredients and attributes, produced by unknown and little-understood techniques. Modern transformation techniques, such as the use of synthetic substances, irradiation, de-composition and re-composition techniques, may hide the original texture and taste of food. The consumer is no longer able to interpret the sensorial messages of food as a trusty sign of its nature (Fischler 1990).

Always less integrated in a familiar or community network, the individual consumer must make his food choices alone. The absence of collective norms generates more anxiety and *gastro-anomie* (Fischler 1990).

RISK PERCEPTION AND SAFETY IN THE FOOD SYSTEM

Risk is an organic part of late modern society. It first derives from the disappearance of deterministic beliefs. With the disappearance of fate, all human action can in theory be calculated in terms of risk. For the ordinary man and woman, as well as the experts in different fields, it has become normal to think in terms of risk and risk calculation (Giddens 1991: 107-143). The penetration of abstract systems of knowledge and the dynamic nature of knowledge imply that risk awareness influences the actions of virtually everybody. Furthermore, in the condition of late modernity, risks are of a particular kind: they are *manufactured*, they derive from the manipulation of nature by man, rather than from external forces. As a consequence, they push men and women to question themselves about the consequences of their actions, in a condition of *reflexivity* (Beck *et al.* 1994).

As regards food, the most common risks in industrialised countries mainly concern contamination and adulteration of food with man-made substances, rather than deriving from natural calamities. Food may contain additives and agricultural products, such as chemical residuals, whose consequences may be unknown and devastating. Risks are amplified by the specialized, concentrated and transnational character of the food system. At a time of many food scandals and the diffusion of transgenic plants, knowing that a small (by industrial standards), but modern chicken firm sends to the market more than twenty million broilers per year, that soybeans[3], as a component in the form of lecithin, enter into more than 60 percent of transformed food and that corn syrup is an ingredient of about three thousand food items, gives an idea of the difficulties that must be faced when seeking to keep under control a risk situation. A very efficacious description of the complexity of food system was recently given by a well-known Italian journalist, at the time of the dioxin chicken scandal:

> Transformation and distribution have such elusive dynamics that the same producers cannot probably control their content. The food chain is so fragmented and sophisticated (in both meanings) that the only possibility is to trust blindly the preceding link: the consumer hopes that the packaging man does not clean his nose during working time; the packaging man trusts that the chicken carcasses arrive resting on clean containers rather than hanging on red-hot mortar mixing machines; the deliveryman hopes that what he is delivering are legs well-shaped by exerciserather than doped by the farmer; the farmer hopes that the feedstuff producer does not oil the grain with the oil from his tractor; the feedstuff producer hopes that the grain is grown naturally, rather than heavily sprayed with pesticides and other chemicals. There are rules, it is obvious: regional, national and European Union rules, each superimposed on the other as sheets of pasta in the lasagna. But, since it is inconceivable that controls are so watertight as to exclude fraud, it is obvious that for each of us buying food is governed mainly by trust (Serra 1999).

Besides the contingent situation of risks that create cyclical panic waves in late modern society - we may recall twenty deaths in Piemonte (Italy) in 1986, because of benzene in the wine, the mad cow crisis since 1996, the dioxin found in chickens and eggs and the toxic Coca Cola in 1999 in Belgium - there is, according to theorists of risk society, an institutionalised and structured environment of risks characterised by regular shifts of knowledge. That raises the necessity for the continuous, detailed monitoring of risk, as far as health is concerned. Risk profiles, delineated by the expert, are conveyed through the media to ordinary people. In response to the experts' opinion, people try to change life styles, but these are not easy to change, linked as they are to many aspects of overall behaviour. Furthermore, the experts may disagree between themselves or else their advice may change, following an advance or a revision of scientific theories. We have then, on one side, a continuous and structured reflection on the risk situations, and on the other, a continuous exchange between experts and ordinary people that

[3] As is known, soy is the most diffused transgenic crop, representing the 53 percent of sown area in 1999 (CEC 2000).

generates anxiety and behavioural uncertainty.

Institutionalised situations concern individual and collective risks alike: the life chances of the individual are directly linked to global capitalist economy. This is particularly evident from the debate that is accompanying the diffusion of biotechnologies in agriculture. The experts speak for different sides. While it is difficult to know the long-term consequences of the diffusion of transgenic plants on the environment and of transgenic food on people, many experts are quick to declare that they are safe. Other experts envisage problems such as the risk of toxicity, allergies and modification in people's immune system, and the risks of biodiversity erosion and modification of ecological equilibrium for the environment.(Bonny 1999; BMA 1999; Cheallaigh 2001).

It seems clear that with current biotechnological change, the food industry is opting for technological choices that are not favoured by consumers, leading to an alliance which is emerging between consumers, retailers and restaurants. In Italy and in Europe, the number of supermarkets that refuse to sell, under their own brands, products containing transgenic ingredients, is growing. In March 1999, Sainsbury's announced the formation of a consortium with six European supermarket chains[4] to organise the 'GMO-free' supply chain (CEC 2000).

On one side, biotechnologies appear as the end point of genetic manipulation of nature, on the other, they make evident the common basis of life, that makes man part of nature, linked to its destiny. Nature is socialised, while at the same time man cannot forget that his life is linked to other living beings. With the introduction of biotechnology and transgenic plants, the production of food emphasises that the dichotomy, man - nature (society - nature), is not sustainable, and that food as well as the environment in which we live are interconnected (Latour 1991).

DISCUSSION: THE RECONSTRUCTION OF TRUST IN RELATION TO FOOD

Food is recognised as a symbolic value of identification and differentiation between 'us' and 'the others'. According to the incorporation principle (Fischler 1990), man is what he eats, and through food man is incorporated into a culture. One of the effects of food industrialisation is the disappearance of the symbolic power of food. Standardised, industrialised, de- and re-composed food loses its history and its identity, and is transformed into the 'not-identified edible object', that has to tell the story of its origin, preparation and identity through *certification processes and labels*.

From a neo-classical economic perspective, the different ways of labelling and certifying food are considered a problem of quality management, and the reduction of uncertainty and information asymmetry as a way to maintain conditions of consumer sovereignty and choice (Caswell and Mojduszka 1996). From the anthropological perspective, they are an attempt at reconstructing the identity of food and, through it, the identity of the individual. The economics of conventions may interpret risk perception, that is the loss of trust in relation to food, inside the conflict between domestic and industrial conventional forms.

In the European Union, the variety of certification systems testify to the complexity of the agro-food system: we find the HACCP system guaranteeing the hygienic conditions of the production system; the ISO 9000 norms that certify the conformity to industrial standards; the certification system of organic production; the different certification systems for typical and specific products; and the protected designation of origin (PDO), the protected geographical indication (PGI), and the traditional specialty guaranteed (TSG), which again try to link a product to a territory, a culture, a community. Far from simplifying the situation, these systems are revealing of the different quality conventions (Sylvander 1995; Thévenot 1995) that co-ordinate the food economy, while representing a compromise between them. A specific product can, thanks to a PDO, travel to distant markets without losing its link with the territory and the tradition. The PDO may then be viewed as a compromise between domestic, industrial and commercial conventions.

In some crucial situations, though, the compromise does not work and the conflict between different forms of agreement breaks down, as in the case of the European Union hygiene directive, which threatened the survival of so many traditional products in Italy and in the Mediterranean regions: the 'formaggio di fossa', the 'culatello di Parma', the 'lardo di Colonnata'. On the whole, Italian institutions had to ask for an exemption from the European directive on hygiene for about 3000 traditional products; 250 types of salamis, 400 cheeses, 200 types of bread, 200 preserved vegetables and fruits, etc. At the same time:

> The most alarming element in the story of the dioxin chicken is the fragility of the hyper-hygienist construction, which is presented as a fundamental advance in the food protection. Behind the apparent triumph of sanitary progress, a schizophrenic Europe is hidden. On one side, the EU promulgates directives that reject from a sanitary point of view the *pecorino di fossa* and other products that are eaten with pleasure and no harm for centuries. On the other side, it loses its war with the United States, which wants to impose levels of hormones in the meat, that we, on this side of the Atlantic, consider unacceptable. So at the same time that we risk losing ancient tastes and safety, we are asked to renounce our gastronomic culture, made of artisan techniques, of regional recipes, of great diversification of raw material, in order to leave the field free for the unfettered industrialisation of the food system. When the English meat producers lobbied for protection under the umbrella of the Thatcher government in order to reduce safety norms in

[4] They were: Carrefour (France); Delhaize (Belgium); Esselunga (Italy); Marks and Spencer (UK); Migros (Switzerland); Superquinn (Ireland).

> feedstuff production, they acted so as to realise extra profits; the fact that herbivorous animal were compelled to eat other animals did not appear to place an excessive strain on natural cycles…(Cianciullo 1999).

In order to find ways out of the food disorder, consumers seem to be pursuing two different trust strategies (Sellerberg 1991); that of organic food and that of the local product. The two strategies are not equivalent, in terms of the coordinating frameworks.

In particular the first strategy refers to a civic convention, that is to say to the adherence to a set of principles that in an ecological perspective, privilege the link between food and nature. In today's context, the ecological imperative is not necessarily linked with the domestic convention (defence of a patrimony, of traditional species and varieties, etc.). Rather, in some circumstances, it seems to incline towards a compromise with the industrial convention, insofar as big multinational companies develop techniques for organic production which is becoming increasingly specialised and industrialised. A regulation, centred on permitted inputs, rather than on agro-ecological processes, techniques and socio-economic dimensions of a sustainable agriculture, may become the basis for the appropriation of organic agriculture by the multinational capital. Examples in this trend are reported from California, where production of organic vegetables is organised around specialised, intensive techniques (Buck, Getz and Guthman 1997). Goodman (1999) reports that in 1997 the United States Department of Agriculture (USDA) released a proposal for the regulation of 'organic' certified products, according to which genetically modified organisms and irradiation was permitted. Only the protests of the public and the movement of organic agriculture producers compelled the USDA to withdraw the proposal. Norms incorporated in the certification system and, in the last instance, the shape that the institutional compromise will take, will determine which logic or convention will predominate.

The second trust strategy is based on a domestic convention, the product linked to a place and a time, the defence of a culinary patrimony, of a local gastronomy, related to the identity of a group, a community, a tradition. Traditional food and culinary tradition became an economic resource (Bessière 1998). The necessity to find new markets though, pushes toward de-localisation of consumption (Fonte forthcoming; Sylvander 1995) and compromises with a commercial convention. Specificity of the product, as a local attribute of the good, does not immediately find a general form of valuation and valorisation through prices in global markets. Certification systems that imply the formalisation of local, tacit forms of knowledge in the production protocols and product specifications, function as an intermediary between local and global system, assigning to the specificity of the product and technique a general form, meaningful for people outside the local systems. New tensions may inevitably be brought in by the compromises between the local level of production, which remain inserted in a domestic convention (and a restricted territory), and the global level of consumption, that implies an articulation with the commercial convention pushing toward the expansion of production.

CONCLUSION

Two decades ago, the agro-food system was described as a monolithic 'complex' heavily dominated by the industrial capital. If the supply side was fully integrated in the market economy, preparation and consumption of food was still important in the family context, favoring a disciplinary division of analysis: preparation and consumption of food were the field of interest of anthropological and psycho-sociological literature, while aspects of production were the terrain of agricultural economists and rural sociologists (Fonte 1991).

The transition from modern to late modern food systems brings an intensification of market relations in the kitchen and to the table (Goody 1982), a re-location of power in the supply chain, an invasion of controversial food biotechnologies and the outbreak of problems related to risk and food safety, all of which imply a loss of trust in relation to food.

In this new context, many new social and economic actors (the biotechnology industry, consumers, experts, retailing capital, regulation agencies), with their specific interests and values (Wilkinson 2000), are playing an active role in shaping the future of the food system in the twenty-first century. Only an integrated approach to the study of the food system will enable us to understand the emerging conflicts and strategic alliances, the motivations behind an actors' behaviour, and the conditions in which such developments take place.

In this paper I have tried to show how reference to the economic, sociological and anthropological literature can give a more articulated picture of the evolution of the food system from modernity to late modernity. In particular, the theory of reflexive modernisation is illuminating in the analysis of risk, while the new economics of conventions is useful in that it makes it possible to interpret the complexity of food consumption as a function of the plurality of conventional forms (domestic, commercial, industrial, opinion and civic) co-ordinating the economic activities in the agro-food system.

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