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GEOGRAPHICAL PROXIMITY AND NEW SHORT SUPPLYFOOD CHAINS

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It is often deplored that the role of Geographical Proximity in creativity, innovation and regional development dynamics has been considered of secondary importance in the recent debates on the end of Geography. However the issue of Geographical Proximity comes back into force today, notably in one of the basic functions of our society: food. Based on the literature on short supply food chains and on the works on proximity relations, this paper aims at understanding the roles, contents and meaning of different types of proximities, for creativity, innovation and regional development dynamics.

Key words: Short supply food chains, proximity, alternative food chains, innovation

I. SHORT SUPPLY FOOD CHAINS AND INNOVATION?

Short supply food chains have long existed. Before mid 19th century, Paris was for example mainly supplied by its surrounding agriculture (Fleury and Donadieu, 1997). In the country side it was (still is) not unlikely that the people buy or/exchange local food products in more or less merchant relations. The reduction of transportation costs, as well as the development of agro-based industries and long anonymous supply chains have loosened, and in most cases broken the relation between growers and end-users.

A recent but still fuzzy notion

The recent resurgence of short supply food chains (SSFCs) has come in line with the development of innovative forms of farming by involving new commercial practices (more direct selling). But before analysing these new forms of food production and commercialisation often named as “alternative food chains” or “alternative food networks”, let’s start with a definition of what we mean here by short supply food chain.

Based on Parker (2005) a supply food chain is considered short when the geographic distance between the farm and the consumer is perceived as low and/or when the number of intermediaries between the producer and the consumer is reduced (ideally one maximum). The boundaries of such supply food chains vary. In France for instance, the Ministry of agriculture (*Ministère de l’Agriculture et de la Pêche*, 2009) has launched an official national definition relying on the number of intermediaries: one, regardless of geographical distance. In this sense, it has privileged the direct relation between producer and consumer rather than the geographical distance between them that is left unbounded. Moreover Selfa and Quasi (2005) have shown that distance can be perceived quite differently by producers, consumers, in urban and rural areas, nevertheless shortness is in our context usually related to the “local” scale. Some have given ideal limits, the Canadians Smith and Mc Kinnon (2007) have for example limited their purchasing area to 160 km (100 miles) in the same line, a recent French locavor guided for 200 km (Novel, 2010). The development of local foodism and the scarcity of local production (in particular the farming approach is organic) tend to loosen these limits. In the French Community supported agriculture (CSA) movement it is not unlikely that plenty kilometres stand between the producer(s) filling the week box and the consumer’s association even though Geographical Proximity appears to be one of the preoccupations here.

In this respect there are many forms of SSFCs: direct selling schemes (on farm sales, farmers market, pick your own, producers shop, CSA, box schemes from the farm, etc.), collective points of sale, local school food schemes, catering services by restaurants , supermarkets provisioning, box schemes from retailer, internet selling etc. Each involves differently and with more or less intense Geographical Proximity and producer-consumer relations.

SSFCs have been mobilising North Western citizens, activists, policy makers and researchers. The latter have had different agendas according to their social context. According to Goodman (2003) North American literature has been marked by the questions of activism against large agro-industrial corporations. Whilst in Europe, rural development, agriculture competitiveness through agro-innovation have mobilised most attention. Therefore, two major sub-issues relate with SSFCs: firstly the restoration, after recurrent food crisis, of food quality and trust relation between producers and consumers and through this the restoration to the relation to food: the *relocation issue*, and secondly the shortening of physical distance between producers and consumers as a mean for the maintaining and development of north western threatened urban agriculture and rural areas: the *territorial development and agriculture safeguard issues*.

In both issues “the local” appears as the vehicle of some form of intrinsic quality that can be objectified, described and most of all marketed on the food market (freshness, trust, information, etc.). This “local” quality provides (or at least is expected to) competitiveness to food products and most of all to *generic* food products, such as carrots, cabbage and leeks whose production do not require the use of specific assets such as *terroir*, traditional and local know-how, etc. As such it challenges the means of regional competitiveness which have pointed the importance of specificity in the paradigm of competition through differentiation and competitive advantages. Local food is in this sense a very different scheme than PGI/PDO, AOC (French) or even slow food movements that tend to valorise specificity and protect *terroir* and know-how (Torre, 2006). Of course both can overlap, products sold under PGI are often sold through SSFC (on the farm, at the cellar, farmers market) – in connection for example with tourism - but their main purpose is exportation out of the local area. Both are about quality, but at very different level. As we mentioned before, SSCF relies on geography regardless of specificity. Geography appears here more alive than ever! It nevertheless still relies on innovation and as we will see on the redefinition of the symbolic meaning of food products.

New forms of SSFCs

Today authors distinguish “old” forms of short supply chains (farmers market, buy on farms, etc.) from more innovative ones (box schemes, community supported agriculture forms, pick-your-own farms, etc.) (Delfosse and Bernard, 2007). Nowadays, the development of these old and new forms are challenging farming production and consumption system technically (more complex farming due to diversification of production, distribution and commercial extra-organisation, know-how and skills development, etc.), socio-institutionally (emergence of new actors, network structure, new forms of contracts – CSA’s, etc.), and territorially (scales articulation, proximity/distance relations, relocation processes, etc.) (Ilbery and Maye, 2005a; Aubry, Kebir and Pasquier, to be published). They give rise to knowledge development (agricultural skills, communication ability, organisational skills, media, organisational structures of the supply chain, consumer’s knowledge on food and on their region, etc.) and new forms of organisation.

Moreover, SSFCS are also associated in the literature with the studies devoted to “alternative food networks/food chains” (Renting et al., 2003; Sonnino and Marsden, 2006; Winter 2005). These alternative farming models have developed in contrast to the industrial, rationalist, distrustful and for many producers un-profitable agriculture (the proportion of land as well as the number of farms has dramatically decreased in the last 20 years). They are characterised by notably more artisanal, quality, organic or sustainable oriented farming practices, short supplying and embeddedness (Ilbery and Maye, 2005b). The relation to space and the recreation of a proximity relation between producers and consumers is fundamentally structuring (Renting et al., 2003). Although, SSFCs appear as an essential piece of these new models of farming it must be noted that all SSFCs are not necessary part of alternative food chains (the conventional, large scale farmer can sell some of his production on a farmer’s market) and also the frontiers between conventional and alternative can be porous (Ilbery and Maye, 2005a). It is not unlikely that alternative producers sell part of their production on international markets (Vassor 2007; Aubry and Chiffolleau, 2009).

Most of all SSFCs rely on the existence of niche food markets related to hypermodern food consumption practices, multi-faced (Chinese fast food for lunch, organic local

salad + home backed meat pie with good AOC French wine for dinner), and characterised by a demand seeking for differentiation (Ascher, 2005; Manniche, 2007). The symbolic dimension of food products is incorporated in what call the “value laden information” (Renting et al., 2003), which is the information related to the nature of the product, its provenance, the modes of production, its quality but also the way one can cook it, the symbolic meaning of buying local food, etc.

The added value of these chains is built upon the information the consumer has. If the latter doesn’t know about the provenance of the product for example, it cannot be valued as “local”. In Ile de France (greater Paris region) for instance many producers sell all or part of their production on the nearby international wholesale food Market of Rungis, which is then redistributed through standard supply chains to local supermarkets, restaurants, school canteens, farmer market suppliers, etc. These “local” products end up in the plate as any other non local product. Therefore, the issue of the constitution and diffusion of the value laden information, as well as the way it is objectivised and transmitted to the consumer either directly or through cultural artefact (books, papers, TV reports, etc.) is a central part of the innovation dimension of contemporary SSFCs. Internet web sites, newsletters, designed packaging, direct communication or information on the producer or the farm (picture, news on the daily life etc.) accompany most of SSFC new schemes. They are fundamental to sense building that is needed to objectivise and concretise the proximity relation. These communication channels exist also on the consumer side, from consumers to consumers (websites, blogs, etc.) and constitute powerful relays of dissemination of these new forms of food purchase.

The large number of existing box schemes, initiatives for local food marketing, etc. reveals this creative emulation. These promising and creative forms of commercialisation proves to be reactive in the capacity of actors to reinvent forms of supplying and purchasing but most of all of creating sense and building the means to activate proximity relations between consumers and producers. But they have not yet permitted to prove their sustainability, be there in environmental, social and/or economical terms (Jarosz, 2008; Coley et al., 2009).

Finally, many authors have pointed the importance of the quality turn related to the production practices associated with alternative food chains and thus SSFCs (organic production, attention to taste, *terroir* forms of productions, etc.) (see for example Goodman, 2003; Sonnino and Marsden, 2006; Manniche, 2007). The quality turn in question here develops mainly in opposition to tasteless, industrial agriculture. In fact it is not really related to food security or organoleptic superiority, but rather to the idea that this food is of a different kind and is shared between smart people too: the symbolic dimension is crucial here. But as mentioned before the “quality” is also strongly embodied in the “local” or “proximity” dimension of the product. The question being posed which aspect is the most relevant in particular when the question of sustainable agriculture is raised (Ilbery and Maye, 2005b). As explain by Ilbery and Maye (2005a), if Geographical Proximity is preferred, (which seems to possibly be the case) qualities such as stemming from organic or more sustainable production processes can be whisked off in favour of local agriculture support and in the worst case to defensive localism (Winter, 2003).

II. SOME BASIC DEFINITIONS OR PROXIMITY RELATIONS

The analysis of Proximity relations (Torre, 2008; Boschma, 2005) proves to be a valuable field of research in various disciplines as well as for different topics such as innovation, industrial production and clusters relations, or land use conflicts. We will show that it can be of great interest for the analysis of SSFCs as well, for at least two reasons:

- the first one is that this approach makes a wide use of the term “proximity”, which is also used at length in local food approaches. Some of these local systems are even nowadays called “economies of proximity”. This coincidence in the terms reveals the crucial concern for the questions of spatial distances and for the strong involvement of local actors ;
- the second and most interesting reason is the fact that the analysis of proximity relations directly relies on the two main features at the basis of short supply food chains: short distance between producers and consumers, and network of persons involved in the production or the consuming system.

In keeping with our previous work, we consider that the distinction between two main categories of proximity - Geographical Proximity and Organized Proximity (Torre and Rallet, 2005)- , redefined more precisely on the basis of recent research on the subject (Torre, 2011), could be of a great importance in the explanation of the relations set in SSFCs. These notions of proximity refer, above all, to potentialities given to individuals, groups, human actions in general, in their technical and institutional dimensions. This potential may, or may not exist at a time t , and therefore may or may not be usable or actionable through the action and representations of the actors (human or non-human). These types of proximity have no moral value and their existence constitutes neither an advantage nor a disadvantage. It is activation through human action that gives this potential its significance and value (“positive” or “negative”) in relation to the economic and social criteria that are relevant in the societies where it is found.

Geographical Proximity

Geographical Proximity is above all about distance. In its simplest definition, it is the number of meters or kilometres that separate two entities. But it is relative in two ways:

- In terms of the morphological characteristics of the spaces in which activities take place. There can be a “crow flies” proximity, in the case of a trip by plane for example, but the nature of the terrain also plays a role: travelling from one point to another on a flat surface is not equivalent to climbing up and down a mountain in order to go from a point A to a point B;
- In terms of the availability of transport infrastructure. The existence of a road or a highway, of a railway or metro network, of river-borne transport, will make access to a place more or less quick and more or less easy. It is in this sense - that of Perroux - that we view functional distance;
- In terms of the financial resources of the individuals who use these transports infrastructures. A high speed railway line might enable people to travel more quickly to and from two places, but its cost proves prohibitive for part of the population, at least in cases when the individuals have to travel frequently.

Therefore, we shall say that the Geographical Proximity between two people, or between people and places, is partly related to the cost of transport, and to the financial means of individuals.

Geographical Proximity is neutral in essence. It is the human actions and perceptions that give it a more or less positive or negative dimension, as well as certain usefulness. It is the way in which actors use it that matters. Thus, the fact that two firms are located in proximity of each other may or may not be a source of interaction: these two entities may remain indifferent to each other or they may choose to interact; in this latter case we talk of a mobilisation of the potentialities of Geographical Proximity. But this mobilisation can have different results depending on the actions undertaken. For example, in the case of innovating firms, it might be the diffusion of scientific or technological knowledge through geographical spill over effect (Bonte, 2008) but it might also lead to firms spying on other firms, or unduly reaping the benefits of an invention that is supposed to be protected by intellectual property rights (Boschma, 2005; Arend, 2009).

Geographical Proximity can be activated or mobilized by the actions of economic and social actors. Depending on their strategies or strategic choices, or according to their perceptions of their environment, the behaviours and attitudes of these actors vary and they mobilise Geographical Proximity differently. More precisely, actors might seek to get closer to or further away from certain people or places, or they might feel satisfied or dissatisfied with the Geographical Proximity of certain people, places or technical objects. Geographical Proximity can be enhanced by the deploying of urban space, by the setting of localized clusters of innovation for example, or by the development of local networks of producers, exchanging knowledge and information through face to face contacts.

Organized Proximity

Organized Proximity too is a potential that can be activated or mobilized. Organized Proximity refers to the different ways of being close to other actors, regardless of the degree of Geographical Proximity between individuals, the qualifier “organized”

referring to the arranged nature of human activities (and not to the fact that one may belong to any organization in particular¹). Organized Proximity rests on two main logics, which do not necessarily contradict each other, and which we shall call the “*logic of belonging*” and the “*logic of similarity*”. Both can help in the setting of trust relations, because help to build a set of common references and interpersonal links between participants to a joint project for example.

The logic of belonging refers to the fact that two or several actors belong to the same relationship graph or even to the same social network whether their relation is direct or intermediated. It can depend on the sector they are operating on; in this case they share common creative or innovation capital. It can be measured in terms of degrees of connectivity, reflecting more or less high degrees of Organized Proximity and therefore a more or less great potential of interaction or common action (Bouba Olga and Zimmermann, 2004). The development of interaction between two actors will be facilitated by their belonging to the same tennis club, or Internet knowledge network. Similarly, cooperation will, *a priori*, develop more easily between researchers and engineers who belong to the same firm, the same technological consortium or innovation network. It includes common organizational culture between the members of a team for example.

The logic of similarity corresponds to a mental adherence to common categories; it manifests itself in small cognitive distances between some individuals. They can be people who are connected to one another through common projects, or share the same cultural, religious (etc.) values or symbols. Social norms, common languages partake of this Organized Proximity. It can also, however, correspond to a bond that sometimes emerges between individuals without them having had to talk in order to get to know one another. It facilitates the interactions between people who did not know one another before but share similar references. Thus, collaboration is all the easier when it involves individuals who share the same culture. Similarly, researchers who belong to the same

¹ One may be organized or one may organize an activity without necessarily refer to or belong to an organization, in the strict sense of the term.

scientific community will easily cooperate because they share, not only the same language, but also the same system of interpretation of texts, results.

The logic of similarity possesses two facets. It can develop within a reciprocal relationship; a relationship which shortens the cognitive distance between the actors involved (common project, common education and knowledge circulating within a network...), but it can also emerge from a common basis, facilitating the communication between strangers (see the example of diasporas). It is also the case when actors share same or similar symbolic attributes and therefore refer to common norms or goals, in terms of way of living or social attitudes towards food or clothes for example. The actors linked by a logic of similarity share certain resources, of a material (diplomas or social status) or cognitive (routines, conventions...) nature, which can be mobilized when the properties described here are activated.

Just like Geographical Proximity, Organized Proximity refers to a potential that is neutral in essence. It is the perceptions and actions of individuals that give it a more or less positive or negative dimension, and therefore certain usefulness. Thus, being connected by a logic of belonging is not a guarantee that interactions will occur, and even less a guarantee of the quality of these interactions. It is human actions that determine whether or not actors are going to start interacting; and results of the interactions vary in this regard: a firm may enter into a relationship with a laboratory in order to collaborate with the latter, or rather to try and rob the laboratory of one of its inventions. For the logic of similarity, a common project has as much chance to lead to an industrial or technological success as to end up in a failure resulting in heavy losses for the parties involved. Finally, the logics of similarity and of belonging can also facilitate collaborations that might be immoral in their motivations. For example, Mafia organizations often feed on both the logic of similarity (ethnic origins) and on the logic of belonging (strong connection within a network of actors), which can be considered immoral ethically.

Temporary Geographical Proximity

We should now add to these two original notions the notion of Temporary Geographical Proximity (TGP), which constitutes one form of Geographical Proximity that enables actors to temporarily interact face-to-face with one another, whether these actors are individuals or organizations such as firms or laboratories for example (Torre, 2008; Torre and Rallet, 2005).

The development of communication technologies and ICT nowadays facilitates long-distance exchange; be there for economic reasons between producers, or for day-to-day relations between friends or relatives. Consequently co-location, which has for a long time been considered as a necessary condition of cooperation between organizations or individuals, no longer constitutes an absolute necessity. A large part of the information and knowledge that are necessary for production or innovation activities can be transferred from a distance, through telephone or Internet mediated exchanges for example (Walther et al., 2005). However, times of face-to-face interaction are necessary and beneficial in this context. The example of the growing importance of trade fairs (Bathelt and Schuldt, 2010), or that of the travelling done by members of R&D (Research and Development) collaboration projects undertaken by biotech start-ups are good examples of such situations. Face-to-face interaction cannot altogether be eliminated, including in the case of communities of practice, for example (See Torre, 2008). As a consequence ICT cannot be considered as substitutes of face to face relations: they are useful tools to support or enhance the interaction between two or several individuals.

Space matters, but in a new way; one that consists of Temporary face-to-face contact between two or several individuals. Temporary Geographical Proximity corresponds to the possibility of satisfying needs for face-to-face contact between actors, by travelling to different locations. This travelling generates opportunities for moments of Geographical Proximity, which vary in duration, but which are always limited in time TGP is limited to certain times; this form of Geographical Proximity should not be mistaken for a permanent co-location of firms or laboratories.

The necessity of TGP is embodied in the existence of places that are especially made for TGP based activities. In the case of private individuals they can be conferences, theme or recreational parks. In the case of firms or laboratories they are specialized venues:

- Trade shows, conferences and exhibitions enables actors to fulfil certain needs related to the processes of production, research or innovation, such as the collection of information, sharing experiences, speculations about a certain type of production (Entwistle, and Rocamora, 2006). The “hub” formula, which enables individuals from different horizons to meet in the same place, enables them to save on transport costs; these hubs are readily viewed as Temporary clusters (Maskell, et al., 2006), a term which highlights the relation with the permanent clusters formed by localized systems of production. But above all, these places respond to a need for face-to-face relations related to the wish to reduce the costs of transactions (Norcliffe, and Rendace, 2003; North, 1991);
- Common “platforms” of project teams are meant to enable the participants of a project to work together for a period of up to several months, in the framework of a project team. It is also the case of the members of a project undertaken by the geographically dispersed subsidiaries of a firm (Kechidi, and Talbot, 2010). Once the partners have reached an agreement as to the characteristics of the project, the platform is dismantled and the participants go back “home”.

But there are two main reasons for the need for TGP: Business trips are undertaken in order to reach a common decision or determine the characteristics of a cooperation project; or an activity that can only be performed in a place other than the individual’ usual workplace. These meetings are needed at regular intervals during the coordination process. Their frequency and regularity are the cause of most business trips. The face-to-face interactions do not, in this case, occur in places exclusively dedicated to meetings, but in “ordinary” places, i.e., in the participants’ usual workplaces, firms or laboratories.

III: DISCUSSION: PROXIMITIES AS A TOOL TO UNDERSTAND THE RATIONALE OF SHORT SUPPLY CHAINS

The use of the theoretical apparatus of the so-called School of Proximity can help in clarifying the debates about food supply chains, and most of all about the complex and sometimes fuzzy definition of SSFCs. It especially gives arguments to disentangle the two major types of relations at work in food supply chains and especially SSFCs: namely distance relations on the one hand and economic and social interactions (be there network relations or relations between producers and consumers) on the other hand.

The analysis of economic and social interactions deserves a special attention in the framework of food supply chains and SSFCs because of its intrinsic complexity. As a matter of fact, it involves not only relations between producers and consumers but also production relations and sometimes links with the distribution sector, as well as symbolic references to shared social norms and values, between all the actors of the supply chain. In order to better understand this complex set of relations, let's try to isolate each block of interactions (horizontal and vertical productive relations, relations between production and distribution, and relations between producers and consumers) and to shed light on their main peculiarities. We will first examine Organized Proximity relations and Geographical Proximity relations thereafter.

Organized Proximity relations

The first set of interactions within supply food chains is directly related to the relations between the various actors involved in the process of production. It is firstly concerned with the horizontal relations between different types of producers: for example, a farmer who produces lettuces may have close interactions with other producers of the same type of products, or with people who help him to bring some natural fertilizers or chemical complements to the process of cultivation. But one may be aware of the

existence of a second type of interactions, all along the production chain. Even if we are mainly concerned with SSFCs, these latter should not be reduced to a one stage process. As presented in Part I, there are various forms of production chains, and some of them can correspond to successive stages: for example the packaging of agricultural products into boxes or trays can be performed by another small entrepreneur, just before bringing them to a local market. Given all these network relations, we can assume that there are various types of organised relations at work within a food production chain and that their study should be valuable in terms of Organized Proximity relations.

There exists a second type of set of interactions within a food production chain, the one of the link between production and consumption and eventually production, distribution and consumption (when there is an intermediary). This link does not always exist and often disappears in most of supply chains. It is nevertheless of a great importance, in short or alternative food chains such as direct selling in supermarkets or organic canteens. This indicates that there are Organized Proximity relations between the links in the chain, and that organisation models of production apply as well, be there at the local level or based on remote relations. For example, organisation of producers who gather (sometimes across space) in order to be able to supply their customer with diversified products and regularity, mobilise a complex set of Organized Proximity relations and share the common goal of bringing food products to local citizens, be there acting upstream or downstream the value chain. The same exists for groups of consumers as well (CSA's for example). Most of all, we mostly find here the adhesion to common norms or shared values: for example the participants of an SSFC, be there consumers or producers, mainly subscribe to the same idea of an organic agriculture, or to the will to promote social mixing through their action. At the same time, these behaviours are rather innovative and demonstrate the creative character of local actors involved in SSFCs. The development of SSFCs in particular alternative ones is associated with the development of networks (many authors highlight of alternative food networks). In France for example most of SSFCs initiatives held by producers, consumers or public bodies consist in networks that are often interconnected across space and across activities. The logic of belonging appears structuring and necessary for emerging new forms of food supplying. One can even recognise here forms of innovative networks common to typical industrial innovation described in the nineties

(see for example Camagni, 1991). Whereas, the logic of similarity complements belonging as it helps building common sense, objective, share value and by this trust. It partakes to the information laden value of the products that differentiate the products with others on the market. As such it appears as a cornerstone of today's SSFCs development. Not only media (through advertisements), but consumer associations have also played (still playing) an important role in creating and diffusing this logic of similarity: first in underground and confidential networks and more recently in wider and even standard channels. By this approach, not only the creative character of these organisations is assessed but it is also displayed and publicized, especially through media coverage.

Geographical Proximity relations

The question of Geographical Proximity within food production chains directly refers to the spatial distance between producers, or between producers and consumers. The case of short distance between producers, or even between producers and distributors is well known in the proximity literature and has given the opportunity to a great number of papers, especially in the field of industrial economics or innovative behaviours. These approaches can be directly derived at the level of food processing. Let us just point the fact that Geographical Proximity between producers must not only be related to the existence of short distances between producers but mainly to the presence of transportation devices and to the accessibility of the different actors. In this respect, the question of congestion in large urban areas could be an interested field to explore in future researches, given the fact that it could lessen or even impede the possibility of daily interactions between local actors (be there producers or consumers). One has also to notice that the question of distance is severely at stakes with respect to this topic: how many kilometres does a short supply chain need to become long?

The second case, the one of the relation between producers and consumers is by far the most innovative in the field of Proximity analysis. Most of the studied relations between close or remote actors are bounded to the case of producers, or to the study of interactions between inhabitants in terms of local planning. But the interaction between

producers and consumers is a truly new issue and deserves very special attention. It paves the way for future development of researches on the question of proximity between production and consumption (and not only on the spatial side) and on the types of face to face interactions between these two groups of social and economic actors¹. Let us just add for the moment that this case also refers to the issue of the mobility of people and goods. On the one hand it raises the concern for the logistics of the transportation itself (time and means of transportation by train, plane, car...) as well as their carbon print (the opportunity of carbon print reduction of SSFCs is at the centre of a very strong and still unclosed debate, Carlson-Kanyama, 1997; Pirog and Benjamin, 2003; Pretty et al., 2005). The notion of food miles is of crucial concern. On the other hand it is directly related to the question of “costs” of Temporary Geographical Proximity and opens the agenda to the study of the reasons why and the ways consumers and producers meet together. But it also raises several peculiar questions. Given a geographical distance between producers and consumers of an agricultural commodity, does the mobility of people replaces the necessity to be located together in the same place, and at what distance (in the literature, this rather flexible concept goes from 140 to 200 km)? In the same way, what is the role played by farmers markets, or by places like canteens in the setting of new food consumption behaviours? Their central situation can be clearly related to the platform role of the fairs of the *équipes plateaux* in the building of new industrial goods (Torre, 2011).

In a few words, Geographical Proximity is at the heart of the concept of SSFCs, because the spatial distance between actors involved is crucial, be there producers or consumers; It must be explored in a thorough way, not only in terms of mobility or transportation, but most of all because Geographical Proximity carries an opportunity of differentiation of the goods on the market (local vs non local food) and consequently offers advantages to certain types of production in terms of competitive advantage. It is also valuable as it

¹ A wide literature on producers/consumers relations has been developed in marketing and innovation studies without particularly questioning spatial aspects. Geography of consumption (Goss, 2004, 2006) has tackled the subject but not much has been developed in economic geography and in territorial innovation systems. Both have remained centred on production issues and need to develop this emerging research agenda (Grabher, et al., 2008; Power and Scott, 2005; Coe, et al., 2008; Jeannerat and Kebir, 2010).

offers a chance to raise social progress by means of social interactions and discussions as well as shared projects and joint socio or economic constructions.

However, these types of innovative and very creative behaviours are strongly linked with the ability to activate the latent potentials of Geographical Proximity. Briefly speaking, and to give a very oriented example, SSFCs are based upon the idea of an activation of Geographical Proximity potential by means of socio-economic behaviours, performed by mostly local actors involved in an intense creative activity, resulting in the setting of new institutional and organisation forms of social interacting. This activation follows two main channels:

- First, the potential of Geographical Proximity is activated through the market and the relation between producers and consumers. This innovative behaviour reveals a great amount of creativity and involves mainly urban consumers into a process of change of usages. The social inventiveness of local actors gives birth to new types of relations thanks to the activation of the potential of Geographical Proximity (great change and creativity : Geographical Proximity between producers and consumers - mainly urban ones). The parallel with the industrial forms of “co-production” (Von Hippel, 1976) between producers and competent users is obvious, because consumers can be very active on the development of the production (at the different stages of the short supply chain, from work on the farm to production choices to land purchase). One can assert of the very creative character of this type of organisation, given the common way of exchange of goods in agribusiness, usually mediated by market relations and mass-market retailing stores.
- Second, this potential is also activated through other forms of alternative merchandization, such as CSA's, subscription, contracts. Also very creative, this type of activation of Geographical Proximity potentials is not only based on relations between producers and consumers but on internal relations to the network of local producers or eventual distributors as well.

Supply chains through the lens of Proximity analysis

As the previous developments have shown, there are multiple forms of supply chains, combining Geographical Proximity with Organized Proximity in different ways. Aubry, Kebir and Pasquier (to be published) have proposed a typology of the forms of supply chains for agricultural products in urban regions based on a simplified distinction between weak or strong Geographical or Organised Proximities assuming however that the scope of various forms and measures of proximity is far more complex and intricate. Note that in this case the study only relies on interactions between producers and consumers, without considering inter-industrial relations.

**Figure 1: Various types of supply chains and proximity relations
between producers and consumers**

		GEOGRAPHICAL PROXIMITY	
		<i>Weak</i>	<i>Strong</i>
ORGANIZED PROXIMITY	<i>weak</i>	<p><i>Case I</i></p> <p>Supply chains with loose relations</p> <ul style="list-style-type: none"> - Selling on international markets - Selling to supply platforms <p>LONG SUPPLY CHAINS</p>	<p><i>Case II</i></p> <p>Local Supply chains with indirect relations</p> <ul style="list-style-type: none"> - Collective point of sale - Selling to local supermarkets* - Selling to local professionals* - Box schemes sold by intermediaries <p>SHORT SUPPLY CHAINS</p>
	<i>strong</i>	<p><i>Case III</i></p> <p>Supply chains with distance relations</p> <ul style="list-style-type: none"> - Direct online selling* - Direct (mail order selling* - Box schemes sold by mail order? catalogue* <p>SHORT SUPPLY CHAINS</p>	<p><i>Case IV</i></p> <p>Local Supply chains with direct relations</p> <ul style="list-style-type: none"> - Farmer's markets* - AMAP/CSA* - On-farm selling* - Box schemes, excl. AMAP/CSA* - Fairs* <p>SHORT SUPPLY CHAINS</p>

Aubry, Kebir and Pasquier, to be published

* Direct selling: producers sell their produce themselves

Supply chains with loose relations correspond to classical long supply chains. Geographical and Organized Proximity relations are very low. The chain is constituted of inter-industrial relations between producers (growers, transformers/assemblers, deliverers, etc.). The producer/consumer relation is considerably dissolved along the chain. The only remaining being traces of provenance taking the form of traceability codes (mandatory by law) or labels for product quality (AOC's, organic, slow food, etc.).

Supply chains with indirect relations (*producer's shop, supermarket selling local products*). These types of short supply food chain correspond to the cases where local products are sold to local consumers without direct relation between producers and consumers. Geographical proximity is high but Organized Proximity low between producers and consumers. Intermediaries such as producer's shops, supermarkets, restaurants, act as hyphen, they guarantee the relationship. Some of the value laden information of the products needs to be objectivised (photos, farm's address, etc.). The "Local" warrants quality.

Supply chains with distance relations (*direct internet selling, box schemes*). This case of short supply food chains does not imply the co-localization of producers and consumers; Geographical Proximity is rather weak, but Organized Proximity strong and is based on the logic of similarity. Producers and consumers share a common set of value and confidence (quality, modes of production, common objectives for agriculture development, etc.). Through these chains, producers of specific goods (wine, local traditional product) expand their markets while consumers find here the opportunity to pursue their purchase overtime (a consumer that tastes and buys good wine in vacation may pursue his purchase afterwards on the internet) and also to buy products they don't find at home (or at other price conditions).

Supply chains with direct relations, corresponds to the canonical SSFC in that is to local direct selling (farmer's market, on farm selling, CSA's). Here Geographical and Organised Proximities are strong. Producers and consumers meet. The relational potential is high. Both belongs to the same "local" area and share also views on food quality, on the sense given to their relation

Apart from the first “loose relation” case, the SSFCs detailed here rely on and mobilise Temporary Geographical Proximity in different ways. Supply chains with indirect relation rely on the permanent collocation of producers and consumers (both are local) and on the existence of intermediary places where a connection between producer and consumer can take place temporarily even if the producer is absent. These places act as platforms for Organized Proximity building and consolidating. Both the producer and the consumer commit themselves when they deliberately decide to deliver/buy products in these platforms. The third case, SSFCs with distance relation are, most of the time, the result of a former Temporary Geographical Proximity relation between the producer and consumer (tourist visiting a region and buying some *terroir* product) that is pursued afterwards through distance relation. The meeting can also happen at the delivery for example (box schemes). It is rare, as far as we know, that such chain develop without, at a point or another direct, face to face relation, between the producer and the consumer. The last form of SSFCs that is with direct relation relies on both permanent and Temporary Proximity. Temporary Geographical Proximity is crucial because it gives the opportunity for producers and consumers to meet together for brief moments in the same places, and to frequently repeat these interactions. By doing this, they can build together trust relations, especially concerning the quality of the products, as well as to set friendly behaviours. It is held by the permanent proximity (collocation in the area) that makes this form of supplying possible (one may not want to drive 3 hours every week to buy carrots when other suppliers are close).

CONCLUSION

The development of SSFCs relies on two main sorts of proximities between actors and in particular producers and consumers. The challenge for actors wishing to develop such supply chain, be there producers, consumers, policy makers, etc. is the construction of Organized Proximity and the structuring of Geographical Proximity. The construction of Organized Proximity can be expressed by the emergence of a new paradigm of food consumption (local is beautiful) built upon shared values (importance given to food quality and traceability), trust building, common project (save/keep agriculture nearby, support alternative agriculture), symbolic shared values, etc. It relies on regular or

temporary face to face relations (farmer's market, on the farm buying) and more broadly on the information circulation and diffusion across society. The value-laden information held by the products, the mobilisation of policy makers to support SSFCs, strongly relayed by the media (eating organic today is rather trendy than odd) partakes to the development of the demand and production for local/organic food supply chains. More works should be made to understand the processes by which this Organized Proximity is built by whom, how and across what type of relationship. This would help understanding the degree of involvement of actors in the common project, their attachment to the common value (be it just business and trendy consumption), etc. and by this the strength and sustainability of the SSFC model.

Geographical proximity is structurally fundamental to SSFCs. Its activation² is nevertheless far from being easy. In other words it is not because producers are close to your house that you will buy them their products (and inversely). SSFCs demand organisation and structuration at the micro level (organisation of farming and marketing activities) and also at the meso level (networks of producers, networks of groups of consumers, etc.) in order to meet requirements (creation of producer's organisation to provide regularly and with product diversity groups of consumers, school canteens, multi products box delivery, etc.). Geographical proximity activation stimulates territorial actors dynamic and gives rise to forms of innovation in the local production system. Of course, the capacity of the system to mobilise is here very important as is the mobilisation of policy makers. The recent legal prescription of organic and low environmental impact food procurement in French public canteens (20% in 2012) has brought a general mobilisation of the local actors concerned with these issues (canteen managers, procurement officers, groups of producers, Agriculture Chambers, etc.). The future of SSFCs will in a large part depend on the capacity of willing actors to activate Geographical Proximity that is to organise concretely and to stabilise the chain that is making it socially, and economically sustainable. It will also depend on the way the value system and common project associated with SSFCs will hold in time.

² We speak here of activation, because *de facto* the producer and the consumer are located in the same area, the question being building the channels/tools by which they will meet and eventually interact.

References

- Arend, R.J. (2009) "Defending against rival innovation", *Small Business Economics*, 33: 189–206.
- Ascher, F. (2005) *Le Mangeur hypermoderne. Une figure de l'individu éclectique*, éditions Paris : Odile Jacob.
- Aubry, C. Kebir, L. and Pasquier, C. (to be published) Le raccourcissement des circuits alimentaires : une nouvelle ruralité en périphérie des villes ?, in Papy, F. and Matthieu N., *Habiter les campagnes, Institutions et gens face au « bon usage » des ressources naturelles*.
- Aubry, C., and Chiffolleau, Y. (2009) "Le développement des circuits courts et l'agriculture périurbaine: histoire, évolution en cours et questions actuelles", *Innovations Agronomiques*, 5 : 41 — 51.
- Bathelt, H. and Schuldt, N. (2010) International Trade Fairs and Global Buzz, Part I: Ecology of Global Buzz, *European Planning Studies*, 18: 12, 1957 — 1974.
- Bonte, W. (2008) "Inter-firm trust in buyer–supplier relations: Are knowledge spillovers and geographical proximity relevant?" *Journal of Economic Behavior & Organization*, 67, 855–870
- Boschma, R. (2005) Proximity in economic interaction, special issue, *Regional Studies*, 39: 1.
- Bouba-Olga, O. and Zimmermann, J-B. (2004) Modèles et mesures de la proximité, in Pecqueur B. et Zimmermann J.-B. (eds.), *Economies de proximité*, Paris : Hermès.
- Camagni, R. (ed.) (1991) *Innovation networks - spatial perspectives*, London: Belhaven-Pinter.
- Carlsson-Kanyama, A. (1997) "Weighted average source points and distances for consumption origin-tools for environmental impact analysis?", *Ecological Economics* 23(1): 15-23.
- Coe, N. M., Dicken, P. and Hess, M. (2008). "Global production networks: realizing the potential" *Journal of economic geography*, 8(3): 271-295.

- Coley, D., Howard, M. and Winter, M. (2009) "Local food, food miles and carbone missions : A comparison of farms shop and mass distribution approaches", *Food policy*, 34 : 150-155.
- Delfosse, C. and Bernard, C. (2007) "Vente directe et terroir", *Méditerranée*, 109 : 23-29.
- Entwistle, J. and Rocamora, A. (2006) "The field of fashion materialized: A study of London Fashion Week", *Sociology*, 40: 735-751.
- Fleury, A. and Donadieu, P. (1997) "De l'agriculture péri-urbaine, à l'agriculture urbaine", *Le Courrier de l'environnement*, 31:August.
- Goodman, D. (2003) "The quality 'turn' and alternative food practices: reflections and agenda", *Journal of Rural Studies* 19(1): 1-7.
- Goss J. (2004), "Geography of consumption I, Progress reports", *Progress in Human Geography* 28, 3: 369-380.
- Goss J. (2006), "Geography of consumption: the work of consumption, Progress reports", *Progress in Human Geography*, 30, 2: 237-249.
- Grabher, G., Ibert, O. and Flohr, S. (2008), "The neglected king: The customer in the new knowledge ecology of innovation", *Economic Geography*, 84(3): 253-280.
- Ilbery, B., Maye, D. (2005a) "Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders", *Land Use Policy*, 22:331-344.
- Ilbery, B. and Maye, D. (2005b) "Alternative or conventional? An examination of specialist livestock production systems in the Scottish-English borders", In: Essex, S., Gilg, A. and Yarwood, R. (eds.) *Rural change and sustainability: agriculture, the environment and communities*, Wallingford : CABI, 85-106.
- Jarosz, L. (2008) "The city in the country: growing alternative food networks in Metropolitan areas", *Journal of rural studies*, 24: 231-244.
- Jeannerat, H. and Kebir, L. (2010) "Economic system of knowledge and regions : a typology based on the analysis of producer-consumer relation" , paper presented at the DRUID Summer Conference in London, June 16 - 18, 2010.

- Kechidi, M. and Talbot, D. (2010) "Institutions and Coordination: what is the contribution of a proximity-based analysis? The case of Airbus and its relations with the subcontracting network", *International Journal of Technology Management*, 50(3/4):285-299.
- Manniche, J. (2007) "Knowledge dynamics and quality conventions in the food and drink sector", *Eurodite WP3 Sector Study*. June 2007.
- Maskell, P., Bathelt, H. and Malmberg, A. (2006) "Building global knowledge pipelines: The role of temporary clusters", *European Planning Studies*, 14: 997-1013.
- Ministère de l'agriculture et de la pêche, (2009) "Rapport du groupe de travail 'Circuits courts de commercialisation'", Mars 2009.
- Norcliffe G. and Rendace O. (2003) "New Geographies of Comic Book Production in North America: The New Artisan, Distancing, and the Periodic Social Economy", *Economic Geography*, 79(3): 241-263.
- North, D.C. (1991) "Institutions", *Journal of Economic Perspectives*, 5(1): 97-112.
- Novel, A.-S. (2010) *Le guide du locavore pour mieux consommer local*, Paris, Eyrolles.
- Parker, G. (2005) "Sustainable Food ? Teikei, co-operatives and food citizenship in Japan and in the UK", *Working Paper in Real Estate and Planning*. 11/05.
- Pirog, R, and Benjamin, A. (2003) "Checking the food odometer: comparing food miles for local versus conventional produce sales to Iowa institutions", Leopold Center for Sustainable Agriculture, Ames Iowa.
- Pretty, J. N., Ball, A. S., Lang, T. and Morison, J. I. L. (2005) "Farm costs and food miles: An assessment of the full cost of the UK weekly food basket", *Food Policy* 30(1): 1-19.
- Power, D. and Scott, A. J. (Eds.) (2005), *Cultural Industries and the Production of Culture*, London, Routledge.
- Renting, H., Marsden, T. K and Banks, J. (2003) "Understanding alternative food networks: exploring the role of short food supply chains in rural development", *Environment and Planning A*, 35(3): 393 – 411.

- Selfa, T and Qazi, J. (2005) "Place, taste, or face-to-face? Understanding producer–consumer networks in 'local' food systems in Washington State", *Agriculture and Human Values*, 22: 451–464.
- Smith, A., and MacKinnon, J.B. (2007) *The 100 Mile Diet: a year of local eating*, Toronto: Vintage Canada Edition.
- Sonnino, R., Marsden, T.K. (2006) "Beyond the divide: rethinking the relationships between alternative and conventional food networks in Europe", *Journal of Economic Geography*, 6: 1981-199.
- Torre, A. (2011) "The role of proximity during long-distance collaborative projects. Temporary Geographical Proximity helps", *International Journal of Foresight and Innovation Policy*, 7(1/2/3): 213-230.
- Torre, A. (2008) "On the role played by temporary Geographical Proximity in knowledge transfer", *Regional Studies*, 42(6): 869-889.
- Torre, A., (2006), "Collective action, governance structure and organizational trust in localized systems of production. The case of the AOC organization of small producers", *Entrepreneurship & Regional Development*, vol. 18, January: 55-72.
- Torre, A. and Rallet, A. (2005) "Proximity and localization", *Regional Studies*, 39(1): 47-60.
- Vassor, R. (2007) "Diagnostic de l'agriculture spécialisée de la Plaine de Versailles et du Plateau des Alluets. Production/commercialisation", Mémoire de stage de césure, INA PG, Paris.
- Von Hippel, E. (1976). The dominant role of users in the scientific instrument innovation process, *Research Policy*, 5(3): 212-239.
- Walther, J.B., Loh, T. and Granka, L. (2005) "Let me count the ways: The interchange of verbal and nonverbal cues in computer-mediated and face-to-face affinity", *Journal of Language and Social Psychology*, 24(1):36-65.
- Winter, M. (2003) "Embeddedness, the new food economy and defensive localism", *Journal of Rural Studies*, 19(1): 23-32.

Winter, M. (2005) “Geographies of food: agro-food geographies – food, nature, farmers and agency”, *Progress in Human Geography*, 29(5): 609-617.